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August 19, 2015

Commission on Dental Accreditation
211 East Chicago Avenue Suite 1900
Chicago, Illinois 60611-2637

RE: Dental Hygiene Initial Accreditation Supplemental Documentation

Ms. Renfrow:

Indian Hills Community College is responding to the Commission on Dental Accreditation request for Supplemental Documentation regarding Standard 2 Educational Program Curriculum.

The statement for the supplemental documentation is as follows; In reviewing the course documents, it was evident that more hours were devoted to these topics but the program need to review and revise this course content to provide the level, depth, and scope expected of post secondary courses, and to meet DH Standards, 2-7,2-8. The clock hours per subject matter appear to meet the standards except for immunology, and general pathology. Most of the documentation lacked learning experiences and competencies.

Enclosed you will find the electronic and paper documentation of the following:

Commission:

One (1) combined electronic copy of the Supplemental Documentation and Schedule of Conferences

Staff/Chair:

One (1) combined electronic copy of the Supplemental Documentation and Schedule of Conferences

One (1) paper copy of Indian Hills Community College Catalog and current Iowa State Dental Practice Act

Additional Members:

One (1) paper copy and one (1) electronic copy of original application and the Supplemental Documentation

One (1) electronic copy of the proposed site visit schedule of conferences

One (1) paper copy of Indian Hills Community College Catalog

Please contact Jody.Williams@Indianhills.edu if you have any additional needs.

Best regards,

Jody Williams

Program Director, Dental Hygiene

August 4, 2015

Dr. Marlene Sprouse
President
Indian Hills Community College
525 Grandview Ave.
Ottumwa, IA 52501

RE: Dental Hygiene Program

Dear President Sprouse:

The Initial Accreditation Application for the developing dental hygiene program to be offered by Indian Hills Community College, has been reviewed by Commission on Dental Accreditation consultants. It appears that this developing dental hygiene program has the potential for meeting the Accreditation Standards for Dental Hygiene Education Programs.

As you are aware, “initial accreditation” status can only be granted based on an on-site evaluation visit. Information gathered from the initial accreditation application and the site evaluation is developed into a report, which is reviewed by the Commission to determine the proposed program’s readiness for the initial accreditation status. **A 1.5-day accreditation site evaluation is being scheduled for the week of October 26-30, 2015.** We will confirm the exact date and team members as soon as possible. The report of this site evaluation will be considered at the Commission’s February 4, 2016 meeting.

In reviewing the College’s self-study application materials, it was evident that some areas of the program are undergoing continued development. To further assist the visiting committee and the Commission in evaluating the program, some sections of the application should be updated and/or enhanced prior to the site visit. These items are listed on attached pages as Supplemental Documentation Requested and are related to the Accreditation Standards. If you determine that any of the information listed on the attached pages cannot be collected and documented prior to the site visit, please advise me as soon as possible.

Please send the following documents 60 days prior to the site visit to the following individuals:

Commission: One (1) combined electronic copy of **the Supplemental Documentation** and the **schedule of conferences**

Staff/Chair: One (1) combined electronic copy of **the Supplemental Documentation; the schedule of conferences;** one (1) paper copy of **college catalog and current State Dental Practice Act** (if provided online only, please provide the pages that pertain to dental hygiene).

Additional members of site visit team: One (1) paper copy and one (1) electronic copy of **original application and the Supplemental Documentation**; One (1) electronic copy of the proposed **site visit schedule of conferences**; one (1) paper copy of **college catalog or applicable pages**.

I have attached a copy of the Site Visit Evaluation Report for a Developing Dental Hygiene Program (SVER). This is the actual evaluation form that will be used by the visiting committee members while they are on site. Review of the instrument by the program administrator and faculty prior to the site visit may help to focus on the requirements of the Accreditation Standards and, as mechanism to objectively identify the strengths and weaknesses of the program prior to the site visit.

Forms to Return: We ask that the following **completed forms be returned to the Commission on Dental Accreditation no later than August 18, 2015 by email to palmerb@ada.org**.

- (1) Institutional Officers Data Form
- (2) Program Directors Data Form
- (3) Off-Campus Sites Form
- (4) Transportation and Hotel Information
- (5) State Board Participation Form
- (6) 1st Class Enrollment Graduation Calendar

Note: The program's documentation for CODA (self-study, application, or reports to CODA, for example) must NOT contain any sensitive personally identifiable information ("Sensitive Information" or "PII") as outlined in "Privacy and Data Security Requirements for Institutions" (see below). Similarly, such documentation must not contain any identifiable patient information ("PHI"); therefore, no "patient identifiers" may be included (see below). This applies whether or not the program is required to comply with HIPAA.

Before sending documents such as self-studies or faculty CVs to CODA, institutions must fully and appropriately redact all PII and all PII all patient identifiers such that the PII and patient identifiers cannot be read or otherwise reconstructed. Covering information with ink is not an appropriate means of redaction.

If the program/institution submits documentation that does not comply with the directives on PHI and PII (noted above), CODA will assess a penalty fee of \$1000 to the institution; a resubmission that continues to contain PHI or PII will be assessed an additional \$1000 fee.

Compliance with Accreditation Procedures: Programs and institutions must meet established deadlines for submission of requested information. If an institution fails to comply with the Commission's request, it will be assumed that the institution no longer wishes to participate in the accreditation process.

Reports that fail to adhere to the stated guidelines may be returned to the program and may not be reviewed at the assigned time. The Commission's timelines for requested documentation will not be modified due to a delayed review resulting from improperly formatted reports.

Third Party Comments: In accordance with the U.S. Department of Education requirements, the Commission has adopted the enclosed Policy on Third Party Comments statement regarding solicitation of third party comments for accredited/developing education programs. Notification of the program's communities of interest must be made by **August 6, 2015**. Comments will be due in this office no later than **September 3, 2015**. Please read the policy in the EOPP at <http://www.ada.org/en/coda/policies-and-guidelines/policy-and-procedure-manual> for further information.

State Board Participation: If the program requests a state board of dentistry representative be present for the site visit, the Commission will extend the invitation on behalf of the program. A copy of the Commission's policy and a description of the representative's role and responsibilities are attached and are provided to the state board if applicable.

Frequency of Citings: The Commission monitors the frequency for which each accreditation standard is cited as a part of its ongoing efforts to monitor the reliability and validity of the standards. This document may be useful as a resource for the faculty who are evaluating the program's compliance with the accreditation standards.

Expenses Associated with the Site Visit: The Commission on Dental Accreditation funds travel and lodging expenses of its site visitors unless the program has additional sites where instruction occurs that involves extending the length of the site visit, additional site visitors or additional travel. Please contact Commission staff for additional information.

If this office can provide any clarification or assistance, please feel free to contact me or Ms. Alyson Ackerman, coordinator, Allied Dental Education at ackermana@ada.org, or 312-440-4660.

Sincerely,



Patrice Renfrow
Manager, Allied Dental Education
Commission on Dental Accreditation

PR/bp

Attachments:

CODA Requirement for Institutions on Privacy and Data Security
Policy on Conflict of Interest
Policy on State Board Participation during Site Visits
Posting Form for Policy on Third Party Comments
Planning for the Initial Accreditation a Developing Dental Hygiene Program Site Visit
Site Visitor Evaluation Report for a Developing Program (SVER)
Supplemental Documentation I Requested

Return the following attached forms via email to palmerb@ada.org:

Institutional Officers Data Form
Program Directors Data Form
Off-Campus Sites Form
Transportation and Hotel Information Form
State Board Participation Form
1st Class Enrollment Graduation Calendar

Please download the current site visit materials and policies at the following links:

Frequency of Citings Document <http://www.ada.org/en/coda/site-visits/prep-for-allied-dental-site-visit/allied-dental-site-visit-documents>

Guidelines for Electronic Submission of Reports <http://www.ada.org/en/coda/policies-and-guidelines/electronic-submission-guidelines>

cc: Dr. Jill Budde, executive dean, Health Sciences
Ms. Jody Williams, program director, Dental Hygiene
Dr. Perry Tuneberg, chair, Commission on Dental Accreditation (CODA)
Dr. Sherin Tooks, director, CODA
Ms. Alyson Ackerman, manager, Allied Dental Education

**Supplemental Documentation Requested I
Indian Hills Community College
Ottumwa, IA**

Standard 1. Institutional Effectiveness

Financial Support

Adequate funding appears to be in place. A Federal Department of Labor grant for \$468,732 was provided October 2014 for funding for development of the DH program, staff and purchase of dental equipment. The college financing appears to be in place with documentation for the long and short-term commitment of the institution to the DH program.

Institutional Accreditation: Institution must be accredited in accord with Standard 1-5

The Higher Learning Commission of the North Central Association (NCA) accredits the college and the accreditation status is effective until 2020. The DH program application was approved by the IHCC Academic Standards Committee and the State of Iowa Department of Education (10-27-14).

The developing program already has an active liaison between the program and the community.

Standard 2. Educational Program

Admissions

A defined student admission process and due process procedures have been developed and are in place. A minimum GPA; test scores (writing, reading, and pre-algebra); SAT and ACT scores are utilized. DANBE certification is required. Resources available for clinic, lab, classroom and staff determine the class size. It is expected that one class, 20 students, will be admitted each August. The clinic has 10 dental units and there will be two (2) sections scheduled. The laboratory has 16 stations and there are two (2) sections scheduled. The college and the program have an anticipated 4 FTE faculty positions. The first FT program faculty will be hired one (1) term prior to admission of the first class.

Curriculum

The first and second year curriculum documents provided in the self-study. The courses all contain course descriptions, topics to be presented, instructional objectives, evaluation procedures and exams. Most of the documents lacked learning experiences and competencies. The documents included a section called “course calendar” that listed the topics to be presented by the week, but the topics only listed the chapters to be discussed and not the topic. There was a second section called “Curriculum Outline” that was broken down into units with the instructional objectives listed. It was difficult to match the course calendar to topics to be presented and the time allotment devoted to each topic. Clock hours per subject matter appear to meet the Standards except for immunology (no clock hours provided); general pathology (no clock hours provided); infection and hazard control management (1 clock hours); and provision of oral health care services to patients

with bloodborne infectious disease (1 clock hour). In reviewing the course documents, it was evident that more hours were devoted to these topics but the program will need to review and revise this course content to provide the level, depth and scope expected of post-secondary courses, and to meet DH Standards 2-7, 2-8 and its components. Please provide evidence of revisions in the Supplemental Documentation Requested prior to the site visit.

Standard 3. Administration, Faculty and Staff

Program Administrator: Program administrator must be hired

The dental hygiene program director was hired January 5, 2014. The program director is a dental hygienist with a bachelor's degree and is working on a master's degree with an anticipated graduation date of fall 2015. The program director has background in education and the professional experience necessary to understand and fulfill the program goals.

Faculty

The program intends to hire a full-time faculty member one quarter prior to the start of the first class. The program anticipates that when fully operational there will be approximately four (4) full-time equivalent positions. As qualified faculty are hired, assignments must be based on current knowledge of the specific subjects they are teaching; and background in educational methodology consistent with teaching assignments.

Support Staff

The program has sufficient support staff to assist with secretarial and clerical support services. A part time receptionist will be added to the dental hygiene program who will be responsible for front office work for the dental clinic.

Standard 4. Educational Support Services

The college and the program appear to have the classroom, clinical and laboratory facilities and learning resources available to support the educational demands of the dental hygiene program.

Standard 5. Health and Safety Provisions

Infectious Disease/Radiation Management

Policies and procedures have been developed to address the needs of infectious disease/radiation management for the dental hygiene program.

Emergency Management

Policies and procedures have been developed to address the needs of emergency management for the dental hygiene program.

Standard 6. Patient Care Services

The program has developed policies and mechanisms to inform patients, verbally and in writing, about their comprehensive treatment needs and the care that will be available at the program's facility. The program has developed treatment plans, recall policies, consent forms, and a standard of care that is patient centered. The program has developed a formal written patient care quality assurance plan.

Sites Where Instruction Occurs

Institution Name:

Indian Hills
Community College

Program (Discipline):

Dental Hygiene

The Commission must ensure that the necessary education as defined by the standards is available, and appropriate resources (adequate faculty and staff, availability of patient experiences, and distance learning provisions) are provided to all students/residents enrolled in an accredited program. The Commission will conduct a site visit to each off-campus location where a significant portion of each student's educational experience is provided, based on the specifics of the program, the accreditation standards, and Commission policies and procedures, or if other cause exists for such a visit as determined by the Commission. After the initial visit, each site will continue to be visited during the regularly scheduled site visit to the program.

Site visits are conducted without any additional charge to the institution and the Commission assumes all expenses incurred by its site visitors; however, accredited programs with multiple sites which must be site visited and programs sponsored by the U.S. military in international locations are assessed a fee at the time of the site visit. The fee is established on a case-by-case basis, dependent upon the specific requirements to conduct the visit (e.g. additional site visitors, additional days, and additional travel time).

Dental Assisting and Dental Laboratory Technology (only): The Commission recognizes that dental assisting and dental laboratory technology programs utilize numerous extramural private dental offices and laboratories to provide students with clinical/laboratory work experience. The program will provide a list of all currently used extramural sites in the self-study document. The Commission will then randomly select and visit several facilities at the time of a site visit to the program.

Please list ALL off-campus sites where clinical instruction occurs. (Please do not include dental assisting and dental laboratory extramural private dental offices and laboratories that provide students with clinical/laboratory work experience):

For Programs with NO additional training sites:

	Check here if <u>all</u> clinical and didactic instruction occurs at the program's on-site facility and the program has no additional training sites.
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For Programs with additional training sites (within or off-site from sponsoring institution):

Name of Site:	Indian Hills Community College Preschool/daycare	
Address:	525 Grandview Avenue Ottumwa Iowa	
Distance from sponsoring institution:	.25 mile	
Purpose of affiliation (detail experiences gained):	Dental health prevention with plaque control program, early intervention habit therapy Working with preschool/ elementary age children	
Are students required to rotate to this site to gain accreditation or program requirements?	YES X	NO
Do all students rotate to this site?	YES X	NO
How many days per year is this site utilized?	Days per year: 24 days	
Is this the only location where a particular experience is provided?	YES	NO X
If YES to question above, what experience?		

Name of Site:	River Hills Community Health Center	
Address:	Ottumwa, Iowa	
Distance from sponsoring institution:	4.5 miles	
Purpose of affiliation (detail experiences gained):	Providing care to low income clients, all facets of dental hygiene care under direct dental supervision of a dentist	
Are students required to rotate to this site to gain accreditation or program requirements?	YES X	NO

Do all students rotate to this site?	YES X	NO
How many days per year is this site utilized?	Days per year: 24 days	
Is this the only location where a particular experience is provided?	YES	NO X
If YES to question above, what experience?		

Name of Site:	River Hills Community Health Center	
Address:	Centerville, Iowa	
Distance from sponsoring institution:	60 miles	
Purpose of affiliation (detail experiences gained):	Providing care to low income clients, all facets of dental hygiene care under direct dental supervision of a dentist	
Are students required to rotate to this site to gain accreditation or program requirements?	YES X	NO
Do all students rotate to this site?	YES X	NO
How many days per year is this site utilized?	Days per year: 24 days	
Is this the only location where a particular experience is provided?	YES	NO X
If YES to question above, what experience?		

Name of Site:	Ridgewood Nursing Rehabilitation Center	
Address:	1977 Albia Road Ottumwa, Iowa 52501	
Distance from sponsoring institution:	5 miles	
Purpose of affiliation (detail experiences gained):	Dental hygiene care provided to chronically ill, geriatric clients and mentally challenged under direct supervision of a dentist.	
Are students required to rotate to this site to gain accreditation or program requirements?	YES X	NO
Do all students rotate to this site?	YES	NO
How many days per year is this site utilized?	Days per year: 24 days	
Is this the only location where a particular experience is provided?	YES	NO X
If YES to question above, what experience?		

Indian Hills Community College CODA Site Visit
 Schedule of Conferences (Day One)
 Initial Accreditation Dental Hygiene Program Site Visit

<u>Time</u>	<u>Place</u>	<u>Subject of Conference</u>	<u>Participants and Title</u>
8:00am	RHEC Conference Room	Orientation	Jody Williams, Program Director
8:30am	RHEC Conference Room	Administration, Budget, Faculty appointments, Admissions	Visiting Committee Dr. Marlene Sprouse, President Dr. Matthew Thompson, Vice President, CAO Dr. Jill Budde, Executive Dean William Meck, Vice President, CFO Heidi Jones, Department Chair Health Science Jody Williams, Program Director Eric Merten, Admissions Director
9:30am	RHEC building	Tour of facilities	Jody Williams, Program Director Visiting Committee
10:15am	RHEC Conference Room	Curriculum review	Jody Williams, Program Director Heidi Jones, Department Chair Health Science Visiting Committee
11:45am	RHEC Conference Room	Lunch (EXECUTIVE SESSION)	Visiting Committee
12:00pm	RHEC Conference Room	Dental Hygiene Advisory Board	Advisory Board Members
1:15pm	RHEC Conference Room	Curriculum review Course by course	Jody Williams, Program Director Visiting Committee
4:30pm	RHEC Conference Room	EXECUTIVE SESSION	Visiting Committee
5:00pm	RHEC Conference Room	Debriefing session	Jody Williams, Program Director Visiting Committee

Indian Hills Community College CODA Site Visit
 Schedule of Conferences (Day Two)
 Initial Accreditation Dental Hygiene Program Site Visit

<u>Time</u>	<u>Place</u>	<u>Subject of Conference</u>	<u>Participants and Title</u>
8:30 am	RHEC Conference Room	Follow-up conferences	Visiting Committee Appropriate Personnel
9:00 am	RHEC Conference Room	Director Final Conference	Jody Williams, Program Director Visiting Committee
9:30 am	RHEC Conference Room	Final Conference with Institution Administration	Visiting Committee Dr. Marlene Sprouse, President Dr. Matthew Thompson, Vice President, CAO Dr. Jill Budde, Executive Dean William Meck, Vice President, CFO Heidi Jones, Department Chair Health Science Jody Williams, Program Director Eric Merten, Admissions Director

Fall 2016

Instructor Contact Information

Jody Williams

Phone: (641) 683-5120 | (800) 726-2585, ext.5120

Email: Jody.Williams@indianhills.edu

Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 2) This course is a comprehensive study of oral landmarks, tooth morphology, and significant structures of the periodontium as it relates to the practice of dental hygiene

Prerequisites

Required: DEA 256 Dental Anatomy, BIO 175 Human Anatomy

Required Textbooks

Nelson, S. (2015) *Wheeler's dental anatomy, physiology, & occlusion*. Saint Louis: Elsevier

Course Focus

The course focuses on the understanding of tooth morphology and dental anatomy.

Course Goals/Student Learning Outcomes

1. Communicate with other professionals using correct dental vocabulary.
2. Identify the primary dentition and the importance of the maintenance of a sound primary dentition.
3. Describe the tooth formation standards.
4. Describe the sequence of tooth eruption.¹⁷

5. Recognize functional malocclusion and identify their etiology in terms of developing, changing face and dentition.
6. Describe temporomandibular joint and the functional interrelationship between dentition and the joint.
7. Identify the factors that support the dentition and the clinical appearance of the dentition within the periodontium.
8. Identify age and age related changes in the oral cavity that affect the dentition.
9. Explain the importance of forensic dentistry in the dental practice.
10. Apply clinical application of dental anatomy, physiology, and occlusion.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, group exercises and discussions.

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 117 syllabi Discussion Chapter 1 introduction to dental anatomy	Understanding tooth numbering systems Method of measuring teeth	1,
2	Week 1 Quiz chapters 1 Discussion of chapters 2& 3 development and eruption, primary teeth	Quiz chapter 1 Tooth drawings & Exploration of tooth models Maxillary incisors	1,2,4
3	Week 2 Quiz Discussion chapter 4 &5 forensics, orofacial form and function	Tooth drawings & exploration of tooth models mandibular incisors Quiz chapter 2&3	1,3,4
4	Week 3 Quiz chapter 4&5 discussion chapter 6 & 7 Permanent Maxillary & mandibular incisors	Tooth drawings canines & exploration of tooth models Quiz chapter 4& 5	1,3,
5	Week 4 Quiz chapters 6 & 7 discussion chapters 8 Permanent Maxillary and Mandibular permanent Canines	Assessment of incisors and canines Quiz Chapters 6 & 7 Premolar maxillary exploration and drawings of tooth models	1,3,4

6	Mid term examination includes chapters 1-8 Discussion chapters 9 Perm maxillary premolars	Mid term exam chapters 1-8 Mandibular Premolar drawings & exploration of tooth models	1,2,3,4
7	Review mid term final results Week 7 discussion chapters 10 permanent mandibular premolars	Assessment of premolars Tooth drawings & exploration of tooth models Maxillary first, second, third molar	1,3,4
8	Week 7 quiz chapter 9 Discussion 11 Permanent maxillary first second and third molar	Assessment of maxillary 1,2,3rd molar drawings and exploration of tooth models	1,,3,4
9	Week 8 Quiz chapter 11 Discussion chapter 12 Permanent mandibular first, second, third molar	Quiz chapter 11 Tooth drawings & exploration of tooth models Mandibular first, second, third molar	1,7,8,10
10	Week 9 Quiz chapter 12 Discussion Chapter 13 &14 Pulp chambers, canals;dento osseous structures	Quiz Chapter 12 Assessment of tooth models Maxillary first, second, third molar	1,5,6,7,
11	Week 10 quiz chapter 13 Discussion Chapter 15 & 16 TMJ, occlusion	Quiz chapter 13	1,5,6,7,8,9,10
12	Review for Final Exam		1,2,3,4,5,6,7,8,9,10
12	Final Exam	100 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Students will be expected to attend lecture and laboratory sessions, read and

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class or lab you must call and let me know.

Course Points

Tooth assessments	100 points
8- Quizzes	400 points
1 mid term	100 points
<u>1 final exam</u>	<u>100points</u>
Total points	700 points

Grading for quiz B as follows:

If the student fails to attain a 78% on a quiz, a Quiz B must be taken. This second chance quiz allows for the student to revisit and spend more time on the material.

The grading is as follows:

Any Quiz A below 78% is required to take a Quiz B but the quiz B has points starting at 10% less than the quiz A. A B grade is the highest that the Quiz B can achieve. AS an example if you had a 57% on quiz A your score will be a no credit. You take a quiz B over the same subject material and achieve a 93%. Your score would be at the B range.

Grading Scale

Quiz A Letter	% Range	Quiz B Letter	% Range
A	93-100	B	93-100
B	85-92	C	85-92
C	78-84	D	78-84
D	75-77	F	0-77
F	0-74		

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I Dental Tooth Anatomy

Objectives:

Upon completion of this unit, the student will be able to:

1. Understand the formation of the dentitions.
2. Understand the development and eruption of the teeth.
3. Understand the primary(deciduous) teeth.

Formation of the dentitions

Nomenclature

Formulae for mammalian teeth

Tooth numbering systems

Division into thirds, line angles, and point angles.

Tooth drawing and carving

Unit II Tooth Form and Function

Objectives:

Upon completion of this unit, the student will be able to:

1. Understand Forensics, comparative anatomy and geometries.
2. Understand Orofacial complex: form and function

Clinical considerations

Variability
Malformation
Chronology of primary dentition
Development and eruption/emergence of the teeth
The dentitions
Neuromuscular development
Transitional mixed dentition period
Loss of primary teeth
Permanent dentition
 Size of teeth
 Dental pulp
 Cementoenamel junction
Dental age
Tooth formation standards
Chronologies of human dentition
 Types of chronologies
 Stages of tooth formation
 Age of attainment
 Age prediction
 Maturity assessment
Duration of root and crown formation
Summary of chronologies
Sequence of eruption
Estimating time of enamel hypoplasia
Life cycle of teeth
Importance of primary teeth
 Primary nomenclature
 Major contrasts between primary and permanent teeth
Pulp chambers and pulp canals
Forensic dentistry
Comparative dental anatomy
Facial and lingual aspects of all teeth
Summary of schematic outlines
Form and function of the permanent dentition
Alignment, contacts, and occlusion

Unit III Permanent Teeth

1. Identify and describe permanent maxillary incisors.
2. Identify and describe permanent mandibular incisors.
3. Identify and describe permanent maxillary and mandibular canines.
4. Identify and describe permanent maxillary premolars.
5. Identify and describe permanent mandibular premolars.
6. Identify and describe permanent maxillary molars.
7. Identify and describe permanent mandibular molars.

Unit IV Tooth chambers and structures

1. Understand pulp chambers, canals and clinical application.
2. Understand dento-osseous structures, blood vessels and nerves.

Unit V Temporomandibular joint and Occlusions

1. Understand temporomandibular articulation

Name _____

Final Exam DHY 117 Advanced Dental Anatomy

Multiple Choice, choose the best answer. 2 points each.

1. What will you look at first when determining a client's occlusion?

- A. Permanent maxillary and mandibular 2nd molars
- B. Permanent maxillary and mandibular 1st molars
- C. Permanent maxillary and mandibular canines
- D. Primary maxillary and mandibular 1st molars

2. What is the technical term if a person is "opening their mouth"?

- A. Depressing the mandible
- B. Depressing the maxilla
- C. Elevating the mandible
- D. Protruding the mandible

3. What is occurring during the third stage of tooth development?
- A. Enamel is being formed
 - B. Hypocalcification is occurring
 - C. Crown and roots are completely formed
 - D. Teeth are erupting into the oral cavity
4. Identify the true statement concerning the maxillary first premolar.
- A. distal concavity on the crown and root
 - B. mesial concavity on the crown and root
 - C. mesiolingual groove on the occlusal surface extending onto the lingual surface
 - D. one buccal cusp and two lingual cusps with a "Y" shape groove pattern
5. The oblique ridge is found on maxillary molars. The oblique ridge extends from the MB cusp to the DL cusp.
- A. both statements are true
 - B. both statements are false
 - C. first statement is true; second statement is false
 - D. first statement is false; second statement is true
6. Which trait would help you to discriminate between the maxillary lateral and the maxillary central incisor?
- A. number of roots
 - B. number of lobes
 - C. longitudinal root concavities
 - D. mesiodistal diameter of the crown
7. What tooth number am I? My crown is approximately 11 mm in length and my root is approximately 15.9 mm in length, from a facial view my mesial surface is flatter, and my cusp slopes and cusp tip are approximately $\frac{1}{4}$ the crown.
- A. #16
 - B. #19
 - C. #22
 - D. #25

8. How many lobes form the maxillary lateral incisors?

- A. 2 lobes
- B. 3 lobes
- C. 4 lobes
- D. 5 lobes

9. Identify the model's malocclusion?

- A. overjet
- B. under bite
- C. open bite
- D. class III



10. What would you document in the DC for this quadrant?

- A. tooth # 4, distal to the lingual
- B. tooth # 4, torsoverted
- C. tooth # 13, torsoverted
- D. tooth # 13, mesial to the facial



11. This model is an example of...

- A. a class III occlusion
- B. an open bite, 6 & 27
- C. an open bite, 11 & 22
- D. a class II Division 2



12. Identify this client's malocclusion?

- A. torsoverted
- B. lingoverted
- C. mesial drift
- D. subverted



13. Identify the malocclusion.

- A. class I occlusion
- B. class II malocclusion
- C. class III malocclusion
- D. long mesial step



14. Which occlusal division is this photo representing?



- A. class II division 1
- B. class II division 2

15. The lingual embrasures are larger than the facial embrasures on posterior teeth. This is true because the proximal contact points are closer to the facial surface.

- A. both the statement and reason are correct and related
- B. both the statement and reason are correct but not related
- C. the statement is correct, but the reason is not correct
- D. the statement is not correct, but the reason is correct
- E. neither the statement nor the reason is correct

16. What directions are the maxillary teeth positioned within the alveolar bone?

- A. facial and distal
- B. lingual and distal
- C. lingual and mesial
- D. facial and mesial

17. What is the function of the articular disc?

- A. to secrete the synovial fluid and lubricate the joint
- B. to support the mandible and muscles of mastication
- C. to act as a cushion between the two bones

D. to assist with depressing the mandible

18. The mandibular fossa is located on the temporal bone. The mandibular fossa can also be referred to as the articular eminence.

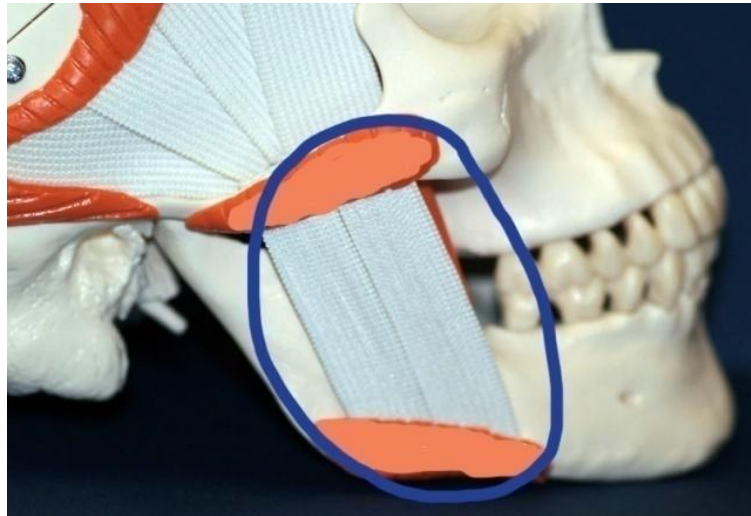
- A. both statements are true
- B. both statements are false
- C. first statement is true; second statement is false
- D. first statement is false; second statement is true

19. What allows for the easy movement within the joint?

- A. the disc
- B. the ligaments
- C. the synovial fluid
- D. the upper and lower compartments

20. Identify the muscle of mastication that is circled in the photo.

- A. temporalis
- B. masseter
- C. medial pterygoid
- D. lateral pterygoid



21. What is this muscle's origin?

- A. angle of the mandible
- B. zygomatic arch
- C. sphenoid bone
- D. coronoid process and condyle

22. Which muscle's action, when contracted bilaterally, is to depress or protrude the mandible?

- A. temporalis
- B. masseter
- C. medial pterygoid
- D. lateral pterygoid

23. What is happening to the mandible when movement is only occurring in the lower compartment?

- A. mandible is being elevated to maximum CO
- B. mandible is being depressed to maximum hinge opening
- C. mandible is being protruded to maximum protrusive
- D. mandible is being retruded to maximum retrusive



24. What term represents maximum intercuspation?

- A. centric occlusion
- B. centric relation
- C. angle's classification
- D. bone to bone relationship

25. How do you "relocate" a client's jaw that is locked open?

- A. push the mandible up and forward
- B. push the mandible down and back
- C. push the mandible down and forward
- D. prescribe anti-inflammatory and muscle relaxants

26. Identify the "non-cariious" lesion on this client's dentition?

- A. abrasion
- B. attrition
- C. erosion
- D. all of the above



27. What parafunction habit would you suspect when a client has flat incisal edges and a reduced cervico-incisal length of the crowns?

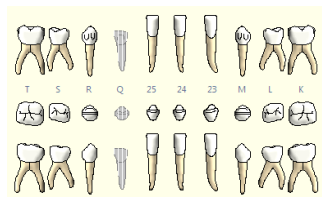
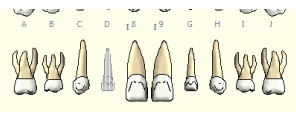
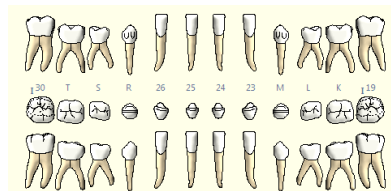
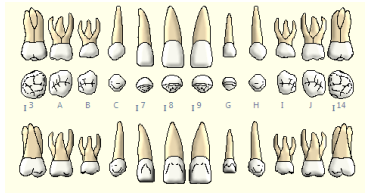
- A. bruxing of the teeth
- B. frequent episodes of vomiting
- C. using a hard bristle toothbrush
- D. swimming as much as Michael Phelps

28. How old would a client need to be to have no pain associated with fracturing off of a crown near the gingival margin?

- A. age 20
- B. age 40
- C. age 80
- D. none of the above, it will always be painful

29. Approximately how many years does it take the roots of permanent teeth to completely form?
- A. 1 year
 - B. 2 years
 - C. 3 years
 - D. 9 years
30. When could enamel hyperplasia occur during tooth development?
- A. beginning with hard tissue formation and ending with crown completion
 - B. beginning with crown completion and ending with eruption
 - C. beginning with eruption and ending with root completion
 - D. beginning with hard tissue formation and ending with root completion
31. How early or late can the permanent teeth erupt into the oral cavity?
- A. 6 months
 - B. 8 months
 - C. 12 to 18 months
 - D. 12 to 18 years
32. Primary roots only resorb if a succedaneous tooth is present. The resorption of a primary root begins at the CEJ.
- A. both statements are true
 - B. both statements are false
 - C. first statement is true; second statement is false
 - D. first statement is false; second statement is true
33. What is the age range for crown formation of primary teeth?
- A. 4 months utero – 6 months utero
 - B. 3 ½ months – 11 months
 - C. 6 months – 24 months
 - D. 2 ½ years – 7 years

34. Identify the correct charting for the photo of this arch.



A.

B.

C.

D.

35. With normal eruption, approximately how old is this child?

- A. 4-5 years old
- B. 7-8 years old
- C. 10-11 years old
- D. older than 13 years



36. Which dental chart is correct for this client?

A.

B.

C.

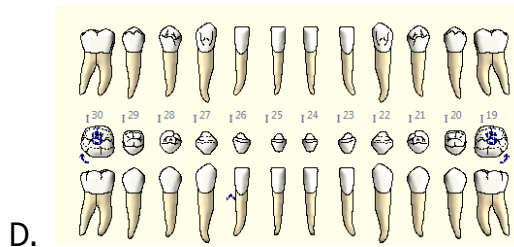
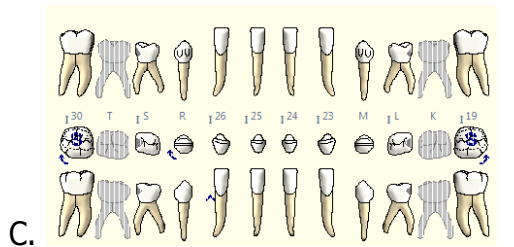
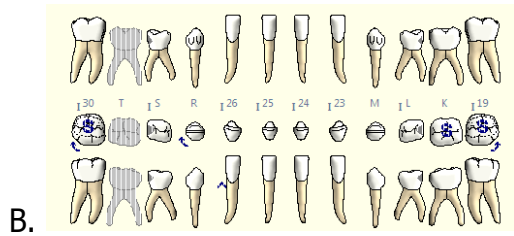
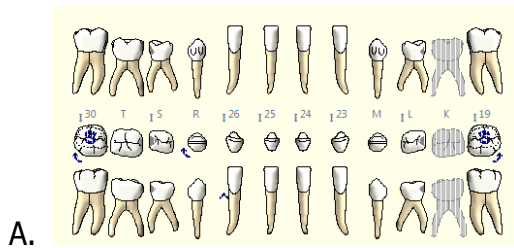
Detailed description of dental charts: Each chart (A, B, C) displays a full dental arch with tooth diagrams. Chart A shows a patient with a missing upper central incisor (tooth 11) and a missing lower central incisor (tooth 21). Chart B shows a patient with a missing upper central incisor (tooth 11) and a missing lower central incisor (tooth 21). Chart C shows a patient with a missing upper central incisor (tooth 11) and a missing lower central incisor (tooth 21).



37. How will you determine a client's occlusion when there are only primary teeth?

- A. looking at the relationship of the permanent 1st molars
- B. looking at the relationship of the permanent canines
- C. looking at the relationship of the primary 1st molars
- D. looking at the relationship of the primary 2nd molars

40. Identify the correct dental chart for this mouth.



41. Identify the teeth that are not flared facially; they have a more vertical up and down position within the alveolar bone?

- A. mixed anterior teeth
- B. permanent anterior teeth
- C. primary anterior teeth

42. Identify the primary molar that has 4 cusps, is wider f/l than m/d, and does not look like any permanent tooth?
- A. tooth a
 - B. tooth b
 - C. tooth j
 - D. tooth t
43. Identify the maxillary molar roots that have longitudinal concavities?
- A. mb, db, & palatal roots
 - B. mb & db roots
 - C. mb & palatal roots
 - D. mb root only
44. Where are the furcations located on the mandibular molars?
- A. mesial and distal surfaces with mesial furcation closest to the CEJ
 - B. buccal and lingual surfaces with buccal furcation closest to the CEJ
 - C. buccal, mesial, and distal with distal furcation closest to the CEJ
 - D. buccal only
45. To prevent gauging of the cementum what must a hygienist do with her instruments?
- A. only use a probe to remove deposits
 - B. follow the topography of the roots by rolling the instrument
 - C. keep the tip of the instrument close to the inside of the gingival sulcus
46. Identify the line angle that will allow you to access the proximal furcations of tooth #3?
- A. m/f line angle
 - B. m/b line angle
 - C. d/l line angle
 - D. both the m/f and m/l line angles

47. Identify the teeth with only concavities on the mesial surface of the roots?

- A. maxillary 1st premolars
- B. maxillary molars
- C. maxillary incisors
- D. mandibular 2nd premolars

48. Which concavity will be the deepest when teeth have longitudinal root concavities on both proximal surfaces?

- A. mesial concavity
- B. distal concavity

49. What anatomical feature of the root would increase its surface area?

- A. divergent roots
- B. root concavities
- C. the crown length
- D. the shape of the CEJ

50. Identify the tooth number and its surface that has the shortest root trunk?

- A. #3 distal surface
- B. #5 mesial surface
- C. #14 buccal surface
- D. #19 buccal surface

Bonus: (6 points—no partial credit)

Identify all of the root lengths in mm

	Maxillary	Mandibular
Central Incisor		
Lateral Incisor		
Canine	_____	_____
First Premolar	_____	_____
Second Premolar	_____	_____
First Molar	_____ P	_____ M
	_____ MB	_____ D
	_____ DB	
Second Molar	_____ P	_____ M
	_____ MB	_____ D
	_____ DB	

DHY 165 Advanced Dental Radiography

Fall 2016

Instructor Contact Information

Jody Williams

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Email: Jody.Williams@indianhills.edu

Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 2) The purpose of this course is to introduce the student to the interpretation and diagnosis of hard and soft tissue pathologies. Students will be able to recognize the stages of disease and health in the existing dental structures. Knowledge of radiology exposure and processing will be expanded.

Prerequisites

Required: DEA 312 Dental Radiography

Required Textbooks

Pharoah, M. & White, A. (2014). *Oral radiology principles and interpretation, 7th edition*
Saint Louis: Elsevier

Langlais, R. (2004) *Exercises in Oral Radiology and Interpretation, 4th edition*. Saint
Louis: Elsevier

Course Focus

The focus of this course is on the radiographic imaging aspects of consumers in dental hygiene settings. Emphasis is on radiographic imaging with a concentration on technique and diagnostics. Theories, practice models, assessments are applied. Instructional strategy will include lectures and study objective, lab portion will include opportunity to expose radiographic images.

Course Goals/Student learning outcomes

1. Demonstrate how to take radiographs on clinical clients based to their specific needs using various radiographic techniques.
2. Understand radiation chemistry, exposure, and safety monitoring
3. Apply principles of digital and film imaging.
4. Understand and apply dental radiographic image sharpness, distortion in paralleling and bisecting technique.
5. Understand dental imaging interpretation of diseases that manifest in the oral pathology
6. Understand dental imaging interpretation of trauma, dental and cranial anomalies.
7. Understand dental imaging interpretation of implants with radiograph signs associated with failing endosseous implants.
8. Demonstrate how to correctly mount the films in a film holder/ digital images and identify normal anatomical structures in any radiographic series.
9. Interpret dental disease, anomalies, and dental materials in a dental imaging radiograph identifying the location.
10. Discuss how a radiographic dental image is placed on a film/ digital sensors including the process that occurs to make the image visible and identify processing errors that will affect the quality of the radiographic film.
11. Understand and apply how the electrical current is used and altered in the dental x-ray machine to produce primary radiation and how that radiation interacts with matter to produce secondary and scatter radiation. This includes how the radiation is measured and how it affects living tissue.
12. Discuss how the dental hygienist will interact with their clients concerning dental radiography and describe the legal obligations they have to their clients and their employer.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 165 syllabi Discussion Chapter 1-3 Physics, Biology, Safety and Protection		2,
2	Week 1 Quiz chapters 1-3 Discussion of chapters 4 & 5 digital imaging Film imaging	Quiz chapter 1	1,2,4
3	Week 2 Quiz Discussion chapter 5	Quiz chapter 2	1,3,4
4	Week 3 Quiz chapter 5 discussion chapter 6 & 7	Quiz chapter 5	1,3,
5	Week 4 Quiz chapters 6 & 7 discussion chapters 8	Quiz Chapters 6 & 7	1,3,4
6	Mid term examination includes chapters 1-8	Mid term exam chapters 1-8	1,2,3,4
7	Review mid term final results Week 7 discussion chapters		1,3,4
8	Week 7 quiz chapter 9 Discussion 11 &12		1,,3,4
9	Week 8 Quiz chapter 11 &12 Discussion chapter 13	Quiz chapter 11 &12	1,7,8,10
10	Week 9 Quiz chapter 13 Discussion Chapter 14 &15	Quiz Chapter 13	1,5,6,7,

11	Week 10 quiz chapter 14 &15 Discussion Chapter 16 review for final	Quiz chapter 14 & 15	1,5,6,7,8,9,10
12	Review for Final Exam		1,2,3,4,5,6,7,8,9,10
12	Final Exam	60 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class or lab you must call and let me know.

Course Points

8- Quizzes 400 points

1 mid term 100 points

1 final exam 100points

Total points 600 points

Grading for quiz B as follows:

If the student fails to attain a 78% on a quiz, a Quiz B must be taken. This second chance quiz allows for the student to revisit and spend more time on the material. The grading is as follows:

Any Quiz A below 78% is required to take a Quiz B but the quiz B has points starting at 10% less than the quiz A. A B grade is the highest that the Quiz B can achieve. AS an example if you had a 57% on quiz A your score will be a no credit. You take a quiz B over the same subject material and achieve a 93%. Your score would be at the B range.

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may

be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I Foundations

Objectives:

Upon completion of this unit, the student will be able to:

1. Understand the composition of matter.
2. Understand the nature of radiation.
3. Describe production of x-rays.
4. Understand factors controlling the x-ray beam, and interactions of x-rays with matter.
5. Describe radiation Chemistry.
6. Radiation effects on tissues and organs.
7. Describe radiotherapy in the oral cavity.
8. Determine effects of whole body irradiation.
9. Describe sources of radiation exposure.
10. Apply dose limits and risk.
11. Apply reducing dental exposure.

Content:

Physics

- a. Composition of matter
 1. Atomic structure
 2. ionization
- b. Nature of Radiation
 1. Particulate radiation
 2. Electromagnetic radiation
- c. X-ray machine
 1. X-ray tube
 2. Power supply
 3. Timer
 4. Tube rating and duty cycle
- d. Production of X-rays
 1. Bremsstrahlung radiation
 2. Characteristic radiation
- e. Factors controlling the x-ray beam
 1. Exposure time
 2. Tube current (mA)
 3. Tube voltage peak (kVp)
 4. Filtration
 5. Collimation
 6. Inverse square law
- f. Interactions of x-rays with matter

1. Coherent scattering
 2. Photoelectric absorption
 3. Compton Scattering
 4. Beam attenuation
- g. Dosimetry
1. Exposure
 2. Air Kerma
 3. Absorbed dose
 4. Equivalent (radiation weighted) dose
 5. Effective dose
 6. Radioactivity
- Biology
- a. Radiation Chemistry
1. Direct Effect
 2. Indirect effect
 3. DNA changes
- b. Deterministic and stochastic effects
- c. Deterministic effects in cells
1. Intra cellular structures
 2. Cell replication
- d. Deterministic effects on tissues and organs
1. Short term effects
 2. Long term effects
 3. Modifying factors
- e. Radiotherapy in the oral cavity
1. Rationale
 2. Effect on oral tissues
- f. Deterministic effects of whole-body irradiation
1. Acute radiation syndrome
 2. Radiation effects on embryos and fetuses
 3. Late effects
- g. Stochastic effects
1. Carcinogenesis
 2. Heritable effects
- Safety and Protection
- a. Sources of radiation exposure
1. Background radiation
 2. Medical exposure
 3. Consumer products
 4. Other sources
- b. Dose limits exposures and risk
1. Dose limits

- 2. Patient exposure
- 3. Estimating Risk
- c. Reducing dental exposure
 - 1. Patient selection criteria
 - 2. Conducting the examination
 - 3. Protecting personnel
 - 4. Quality assurance
 - 5. Continuing education
 - 6. Talking with your patient

Unit II Imaging

At the completion of this unit, students will be able to:

- 1. Differentiate between analog and digital imaging.
- 2. Understand digital detector characteristics.
- 3. Apply processing troubleshooting of darkroom equipment, and maintenance.
- 4. Differentiate image sharpness, distortion and radiographic techniques.
- 5. Determine different types of intra oral projections in imaging.
- 6. Apply quality radiographs.
- a. x-ray Film
 - 1. Composition
 - 2. Intraoral x-ray film
 - 3. Screen film
- b. Intensifying Screens
 - 1. Function
 - 2. Composition
- c. Formation of the latent image
- d. Processing solutions
 - 1. Developing solution
 - 2. Developer replenisher
 - 3. Rinsing
 - 4. Fixing solution
 - 5. Washing
- e. Darkroom and equipment
 - 1. Darkroom
 - 2. Safe lighting
 - 3. Manual processing racks
 - 4. Thermometer
 - 5. Timer
 - 6. Drying racks
- f. Manual processing procedures
- g. Rapid-processing chemicals

- h. Changing solutions
- i. Automatic film processing
 - 1. Mechanism
 - 2. Operation
- j. Establishing correct exposure times.
- k. Management of radiographic wastes
- l. Image characteristics
 - 1. Radiographic density
 - 2. Radiographic contrast
 - 3. Radiographic speed
 - 4. Film latitude
 - 5. Radiographic noise
 - 6. Radiographic sharpness and resolution
 - 7. Image quality
- m. Common causes of faulty radiographs
- n. Mounting radiographs
- o. Duplicating radiographs
- p. Imaging sharpness and resolution
- q. Image size distortion
- r. Image shape distortion
- s. Paralleling and bisecting- angle technique
- t. Object localization
- u. Eggshell effect

Unit III Imaging (cont)

Intra oral projections

- a. Criteria of quality
- b. Periapical imaging
 - 1. General steps for making an exposure
 - 2. Paralleling technique
 - 3. Bisecting-angle technique
- c. Occlusal imaging
- d. Imaging of children
 - 1. Patient management
 - 2. Examination coverage
- e. Mobile imaging
- f. Special considerations
 - 1. Infection
 - 2. Trauma
 - 3. Patients with mental disabilities
 - 4. Patients with physical disabilities
 - 5. Gag reflex

- 6. Imaging for endodontics
- 7. Pregnancy
- 8. Edentulous patients
- Unit III Dental Anatomy
 - a Teeth
 - b Supporting structures
 - 1. Lamina dura
 - 2. Alveolar crest
 - 3. Periodontal ligament space
 - 4. Cancellous bone
 - C Maxilla
 - 1. Intermaxillary suture
 - 2. Anterior nasal spine
 - 3. Nasal aperture
 - 4. Incisive foramen
 - 5. Superior foramina of the nasopalatine canal
 - 6. Lateral fossa
 - 7. Nose
 - 8. Nasolacrimal canal
 - 9. Maxillary sinus
 - 10. Zygomatic process and zygoma
 - 11. Nasolabial fold
 - 12. Pterygoid plates
 - d. Mandible
 - 1. Symphysis
 - 2. Genial tubercles
 - 3. Lingual foramen
 - 4. Mental ridge
 - 5. Mental fossa
 - 6. Mental foramen
 - 7. Mandibular canal
 - 8. Nutrient canals
 - 9. Mylohyoid ridge
 - 10. Submandibular gland fossa
 - 11. External oblique ridge
 - 12. Inferior border of the mandible
 - 13. Coronoid process
 - e. Restorative materials
- Extra oral projections and anatomy
 - a Selection criteria
 - b Technique
 - c Evaluation of the image
 - 1. Lateral skull projection

2. Posterior skull projection
3. Cephalometric projection
4. Submentovertex projection
5. Waters projection
6. Reverse-Towne projection

Panoramic imaging

- a Principles of Panoramic image formation
 1. Focal trough
 2. Image distortion
 3. Real, double, and ghost images
 4. Panoramic machines
- b Patient positioning and head alignment
- c Image receptors
- d Panoramic film darkroom techniques
- e Interpreting panoramic images
 1. Dentition
 2. Midfacial region
 3. Mandible
 4. Soft tissues

Cone-beam computed tomography: Volume acquisition

- a Principles of cone-beam computed tomographic imaging
- b Imaging
- c Components of image production
 1. X-ray generation
 2. Image detectors
 3. Reconstruction
- d Clinical considerations
 1. Patient selection criteria
 2. Patient preparation
 3. Imaging protocol
 4. Archiving, export, and distribution
- e Image artifacts
 1. Inherent artifacts
 2. Procedure-related artifacts
 3. Introduced artifacts
 4. Patient motion artifacts
- f Strengths and limitations
 1. Strengths
 2. Limitations

Unit III Imaging Quality assurance (cont)

- a Radiographic quality assurance
 1. Daily tasks
 2. Weekly tasks

- 3. Monthly tasks
- 4. Yearly tasks
- b Infection control
 - 1. Standard precautions
- Prescribing Diagnostic Imaging
 - a Role of radiographs in disease detection and monitoring
 - 1. Caries
 - 2. Periodontal diseases
 - 3. Periapical inflammatory disease
 - 4. Dental anomalies
 - 5. Growth and development and dental malocclusion
 - 6. Occult disease
 - 7. Jaw disease
 - 8. Temporomandibular joint
 - 9. Implants
 - 10. Paranasal Sinuses
 - 11. Trauma
 - b Radiologic examinations
 - 1. Intraoral images
 - 2. Extraoral images
 - c Guidelines for ordering diagnostic imaging
 - 1. Previous diagnostic images
 - 2. Administrative images
 - d Uses of guidelines to order dental diagnostic images
 - 1. Patient examination
 - 2. Special considerations
 - 3. Examples of use of the guidelines

Unit III Interpretation

At the completion of this unit, students will be able to:

- 1. Analyze and interpret internal normal and abnormal findings
- 2. Assess changes to periodontal structures and conditions that affect periodontal disease.
- 3. Differentiate between general clinical features and inflammatory lesions.
- 4. Differentiate between Odontogenic cysts, nondodontogenic, and cyst like lesions.
- 5. Differentiate between hyperplasias, benign tumors, nonodontogenic and odontogenic tumors.
- 6. Differentiate between bone dysplasias.

Principles of radiologic interpretation

- a Adequate diagnostic images
- b Visual search strategies
- c Diagnostic reasoning in oral radiology
- d Analysis of abnormal findings

- e Analytic or systematic strategy
 1. Localize abnormality
 2. Assess periphery and shape
 3. Analyze internal structure
 4. Analyze effects of lesion on surrounding structures
 5. Formulate interpretation

Dental caries

- a Diseased mechanism
- b Role of radiology in detection of carious lesions
- c Examination with conventional intraoral film
- d Examination with digital intraoral receptors
- e Detection of carious lesions
 1. Proximal surfaces
 2. Occlusal surfaces
 3. Rampant caries
 4. Buccal and lingual surfaces
 5. Root surfaces
 6. Associated with data restorations
- f Therapy after radiation
- g Alternative diagnostic tools to detect dental caries
- h Treatment considerations

Periodontal diseases

- a Disease mechanism
- b Assessment of periodontal disease
 1. Contributions of diagnostic images
 2. Limitations of intraoral images
 3. Technical procedures
- c Appearance of normal anatomy
- d Imaging features of periodontal disease
 1. Changes in morphology of alveolar bone
 2. Changes to internal density and trabecular pattern of bone
 3. Other patterns of periodontal bone loss
- e Dental considerations associated with periodontal diseases
 1. Occlusal trauma
 2. Tooth mobility
 3. Open contacts
 4. Local irritating factors
- f Evaluation of periodontal therapy
- g Differential diagnosis
- h Conditions that affect periodontal disease
 1. Diabetes mellitus
 2. Acquired immunodeficiency syndrome
 3. Radiation therapy

Inflammatory disease

- a Disease mechanism
- b General clinical features
- c General imaging features
- d Periapical inflammatory lesions
- e Osteomyelitis
 - 1. Acute phase
 - 2. Chronic phase
- f Radiation- induced changes to the jaws
- g Osteoradionecrosis
- h Bisphosphonate- related osteonecrosis of the jaws
- i Diagnostic imaging of soft tissue infections
- j Pericoronitis

Cysts

- a Odontogenic cysts
 - 1. Radicular cyst
 - 2. Residual cyst
 - 3. Dentigerous cyst
 - 4. Buccal bifurcation cyst
 - 5. Keratocystic odontogenic tumor
 - 6. Basal cell nevus syndrome
 - 7. Lateral periodontal cyst
 - 8. Glandular odontogenic cyst
 - 9. Calcifying cystic odontogenic tumor
- b Nonodontogenic cyst
 - 1. Nasopalatine duct cyst
 - 2. Nasolabial cyst
- c Cysts originating in soft tissues
 - 1. Thyroglossal duct cyst
 - 2. Branchial cleft cyst
 - 3. Lymphoepithelial cyst of parotid gland
 - 4. Dermoid cyst
 - 5. Former cysts
- d Cyst like lesions
 - 1. Simple bone cyst

Benign Tumors

- a Hyperplasias
 - 1. Torus palatinus
 - 2. Torus Mandibularis
 - 3. Hyperostosis
 - 4. Dents' bone island
- b Benign tumors

- c Odontogenic tumors
 - 1. Odontogenic-epithelial tumors
 - Ameloblastoma
 - Calcifying epithelial odontogenic tumor
 - 2. Mixed odontogenic tumors
 - Odontoma
 - Ameloblastic fibroma
 - Ameloblastic fibro-odontoma
 - Adenomatoid Odontogenic tumor
 - 3. Mesenchymal Tumors (Odontogenic ectomesenchyme)
 - Odontogenic myxoma
 - Benign Cementoma
 - Central odontogenic fibroma
- d Nonodontogenic benign tumors
 - 1. Benign tumors of neural origin
 - Neurilenoma
 - Neuroma
 - Neurofibroma
 - Neurofibromatosis
 - 2. Mesodermal tumors
 - Osteoma
 - Gardner's syndrome
 - Central hemangioma
 - Arteriovenous fistula
 - Osteoblastoma
 - Osteoid osteoma
 - Ossifying fibroma
 - Desmoplastic fibroma of bone

Other bone diseases

- A Bone dysplasias
 - 1. Disease mechanism
 - 2. Fibrous Dysplasia
 - 3. Periapical osseous dysplasia
- B Other lesions of the bone
 - 1. Central Giant Cell granuloma
 - 2. Aneurysmal bone cyst
 - 3. Cherubism
 - 4. Paget's disease
 - 5. Langerhan's Cell histiocytosis

Trauma

- A Applied radiology traumatic injuries of the teeth
 - 1. Concussion
 - 2. Luxation
 - 3. Avulsion
- b Fractures of the teeth
 - 1. Dental crown fractures
 - 2. Dental root fractures
 - 3. Combination crown and root fractures
- c Traumatic injuries to the facial bones
 - 1. Mandibular fractures
 - Mandibular body fractures
 - Mandibular condylar fractures
 - Fractures of the alveolar process
 - 2. Midfacial fractures including Maxillary fractures
 - Orbital wall blowout fractures
 - Zygomatic fractures
 - Le Fort I horizontal fracture
 - Le fort II pyramidal fracture
 - Le fort III craniofacial disjunction

Dental Anomalies

- A Developmental abnormalities
 - 1. Number of teeth
 - Supernumerary teeth
 - Missing teeth
 - 2. Size of teeth
 - Macrodontia
 - Microdontia
 - 3. Eruption of teeth
 - Transposition
 - 4. Altered morphology of teeth
 - Fusion
 - Concrescence
 - Gemination
 - Taurodontism
 - Dilacerations
 - Dens invaginatus, Dens in dente, dilated odontome
 - Dens evaginatus
 - Amelogenesis imperfect
 - Dentinogenesis imperfect, osteogenesis imperfect
 - Dentin dysplasia
 - Regional odontodysplasia
 - Enamel pearl

Talon cusp
Turner's hypoplasia
Congenital syphilis

b Acquired Abnormalities

Attrition
Abrasion
Erosion
Resorption
Secondary dentin
Pulp stones
Pulp sclerosis
Hypercementosis

Name: _____

Final Exam

J Williams

Need for exam – *Exercises in Oral Radiology and Interpretation 4th edition* and a calculator.

Multiple choice 2 points each.

1. Which cell/tissue is the most sensitive to dental radiographs?

- a. bone marrow
- b. muscles of mastication
- c. nerves of the face
- d. tissues of the tongue

2. Why is the x-ray beam collimated?

- a. to increase the penetration of the x-rays
- b. to avoid delivering short wavelengths to the patient
- c. to reduce the size of the central ray beam
- d. to reduce the exposure time

3. A pocket dosimeter will measure the radiation in milli-roentgens. What is this measurement measuring?

- a. absorbed dose
- b. dose equivalent
- c. exposure

4. A client states that they are concerned about receiving the 33 μGy of radiation from the FMX. What is this measurement measuring?

- a. absorbed dose
- b. dose equivalent
- c. exposure
- d. quality factor

5. How will the panoramic radiograph appear when the client's chin is tipped too far downwards?

- a. the radiographic image appears to —smile||
- b. the radiographic image appears to —frown||
- c. there will be a ghost of the spine on anterior teeth
- d. the teeth will be wide

6. What must be documented in a client's chart about their radiation exposure?

- a. number and type of radiographs
- b. diagnostic and interpretation information

- c. rational for exposing radiographs if different than selection criteria
- d. all of the above

7. Cells that are immature or not highly specialized are radiosensitive. Cells that divide frequently or undergo many divisions over time are radiosensitive.

- a. both statements are false
- b. both statements are true
- c. first statement is false. second statement is true
- d. first statement is true. second statement is false

8. How thick must the aluminum filter be for an x-ray machine that has 70 kVp?

- a. .5 mm
- b. 1.5 mm
- c. 2.5 mm

9. What is the purpose of the aluminum filter?

- a. to reduce the size of the x-ray beam
- b. to remove hard radiation
- c. to remove long wave x-rays
- d. to transfer the heat to the oil

10. What types of cells are considered more radiosensitive?

- a. birds
- b. humans
- c. nerves cells
- d. slowly dividing cells

11. Which theory states... "up to a certain dose of radiation there will be no tissue/cell damage; then beyond that point the dose and tissue/cell damage are proportional to one another."

- a. indirect hit theory
- b. law of B & T
- c. threshold curve theory
- d. non-threshold curve theory

12. When positioning a client for a panoramic radiograph and the teeth are buccal to the focal trough (closer to the film) how will the teeth appear radiographically?

- a. narrow
- b. normal
- c. overlapped
- d. wide

13. Identify the part of the alternating current that is used to produce x-ray photons?
a. when the current goes from positive to negative
b. when the current goes from negative to positive
c. x-rays are produced using the entire alternating current

14. Where are x-ray photons produced? At the _____
a. anode
b. cathode

15. Identify the best periapical technique to use when exposing radiographs on a client that is edentulous or a child?
a. bisecting
b. bitewing
c. paralleling

16. Which image is magnified and projected higher on the opposite side of the panoramic film?
a. ghost
b. midline
c. real
d. none of the above

17. When the distance between the source of radiation and the object increases the intensity of the radiation _____
a. decreases
b. increases
c. stays the same

18. Identify the variables that control the quantity of the x-ray beam?
a. kVp & mA
b. kVp, mA, & exposure time
c. mA & exposure time
d. H & D curve of the film

19. When interpreting caries on a radiograph and a radiolucency is less than 1/2 the width of the enamel. Identify the type of caries?
a. buccal/lingual
b. incipient interproximal
c. incipient occlusal
d. recurrent

20. What needs to be done if a dosimeter badge was exposed to 50 mSv within a one month period?

- a. have a cancer test
- b. review your procedures of taking radiographs
- c. tell your employer that you can't expose radiographs
- d. forget about it because it doesn't mean anything

21. What must you wear when taking a bitewing series on a client that has a normal medical history and no contraindications?

- a. glasses and face mask
- b. glasses and gloves
- c. glasses, gloves, and face mask
- d. gloves

22. The wavelength of dental x-rays are considered _____ when compared to AC power, radio, television, or radar waves.

- a. long
- b. short

23. An x-ray photon that is able to penetrate all the tissue and collide onto the film will produce an area that is _____ on the image/film.

- a. radiolucent
- b. radiopaque
- c. resistant
- d. all of the above

24. What is the exposure time if the mAs is .96 and the mA is 8.

- a. .06
- b. .08
- c. .12
- d. 7.68

25. You have taken a PA of the maxillary right molars and the image is foreshortened. What did you do wrong?

- a. too much positive angulation
- b. not enough negative angulation
- c. horizontal angulation parallel to the surface of crowns
- d. none of the above

26. The dot on a radiographic film helps to determine if the image is representing the right or left side of the mouth. It is expected (the preferred way) that when films are mounted the dot is convex—a —pimple||.

- a. both statements are false
- b. both statements are true
- c. first statement is false; second statement is true
- d. first statement is true; second statement is false

27. How is a real single object projected on the panoramic image?

- a. when the anatomical landmark is between the rotational center and the film
- b. when the anatomical landmark is between the rotational center and the source of radiation
- c. when the anatomical landmark is located within the center of the person.
- d. all of the above

28. The distance between the image layer and the rotational center determines the _____ of the image layer.

- a. height
- b. width
- c. depth

29. A client that has a chronic apical abscess with a fistula tract and suppuration will most likely be pain-free during the oral exam. When you observe a draining fistula in an client's mouth a periapical radiograph of the area needs to be included in the treatment plan.

- a. both statements are false
- b. both statements are true
- c. first statement is false; second statement is true
- d. first statement is true; second statement is false

30. What is lost at the apex of the tooth/teeth when periapical disease is observed on a radiographic image?

- a. cementum
- b. lamina dura
- c. pdl space
- d. none of the above

31. When a client's chief complaint is localized pain and a periapical image reveals a radiolucency at the apex what will be your interpretation (presumptive diagnosis)?

- a. acute apical abscess
- b. apical granuloma
- c. chronic apical abscess
- d. hypercementosis

32. What appears as small, round, or ovoid radiopacities and located on the cervical portion of the teeth?

- a. amelogenesis imperfecta
- b. dens invaginatus
- c. enamel pearls
- d. ghost teeth

33. How will you determine the difference between congenital hypodontia and acquired hypodontia?

- a. through the dental history
- b. by a radiographic exam
- c. through a medical history

Exercises in Oral Radiology and Interpretation 4th edition.

pg. 261 # 375

34. Reviewing this panoramic image what positioning error do you identify?

- a. chin too high
- b. chin too low
- c. positioned too far forward
- d. positioned too far back

pg. 182 Case 11-31

35. Why is the area around the anterior teeth so radiopaque?

- a. chin too high
- b. client is slumped
- c. jewelry left on
- d. positioned too far back

pg. 10 figure 1-17 B

36. This client has been negligent of her teeth for the last 10 years and is experiencing pain to sweets. After doing an oral exam and taking complete histories you included a FMX in the treatment plan. Using this maxillary anterior image what would you interpret as causing her pain?

- a. cervical burn out
- b. incipient lesions
- c. rampant decay
- d. root canals

pg. 13 figure 1-23 B

37. What would you chart on the radiographic charting?

- a. red X through tooth 10 and red caries on tooth 11 mesial
- b. red X through tooth 10 and blue restoration on tooth 11 mesial
- c. blue X through tooth 10 and red caries on tooth 11 mesial
- d. blue X through tooth 7 and red caries on tooth 6 mesial

pg. 30 figure 1-68

38. The new client brought this x-ray that was exposed last month at his former dentist. This is the only dental radiograph he has had for the last 3 years. Will you need to treatment plan any other radiographs?

- a. yes, bitewings to check for interproximal decay
- b. yes, periapicals to check for interproximal decay
- c. no, all posterior teeth are filled no need for more radiographs

pg. 64 figure 4-33

39. What would you interpret with tooth #14?

- a. cervical burnout
- b. incipient decay
- c. recurrent decay
- d. severe decay
- e. nothing this is an image of tooth #3

pg. 64 figure 4-33

40. While still looking at this image, what will you suspect when you probe between the molars?

- a. increased probe readings due to a loss of alveolar process
- b. decreased probe readings due to a loss of tooth structure
- c. nothing the alveolar process appears to be healthy

pg. 65 figure 4-34 A

41. Looking at the interproximal area between the 2nd and 3rd molars you would include vertical bone loss on the presumptive periodontal diagnosis.
- a. no, because the lamina dura is parallel with the proximal CEJ's
 - b. yes, because you can definitely see the bone is higher up on the 3rd molar

pg. 143 case 10-22

42. What do you see radiographically as a contributing factor for this gentleman's periodontal condition?
- a. amalgam tattoo
 - b. caries
 - c. calculus
 - d. mobility

pg 150 case 10-46

43. On the periodontal chart what will be recorded for tooth #18?
- a. furcation
 - b. mobility
 - c. recurrent decay
 - d. sub-eruption

pg. 140 case 10-8

44. Identify the correct statement concerning this image?
- a. general horizontal bone loss
 - b. generalized chronic caries
 - c. healthy bone

pg 112 figure 7-35

45. Which tooth are you going to take an additional periapical?
- a. #2 due to apical radiolucent area
 - b. #30 due to apical radiolucent area
 - c. none there is no pathology indicated on this radiograph

page 39 figure 2-24 B

46. Identify the anatomical landmark that is a thin radiolucency line between teeth #8 and #9?
- a. anterior nasal spine
 - b. mental foramen
 - c. nasal sinus
 - d. median palatal suture

page 56 figure 4-12 A

47. Identify the radiopaque —U|| shape landmark apical to #2?

- a. coronoid process
- b. maxillary sinus
- c. maxillary tuberosity
- d. zygomatic arch

pg. 59 figure 4-19

48. Identify the landmark—a radiolucent line bordered on the top and bottom by radiopaque lines and runs diagonal near the apical areas of the molars?

- a. external oblique ridge
- b. mandibular canal
- c. mental foramen
- d. shadow of soft tissue from tongue

pg. 61 figure 4-24 B

49. Identify the landmark—the small radiopaque circle located apical to the teeth?

- a. genial tubercles
- b. lingual frenum
- c. mental fossa
- d. partial left on

pg. 65 figure 4-34 A

50. Identify the landmark—the radiopacity located on the left side/boarder of the image?

- a. coronoid process
- b. maxillary sinus
- c. zygomatic process
- d. the arm to the Rinn

Bonus...answer the following questions—answered wrong will not be deducted

Pg. 65 figure 4-34 B

51. Identify the radiolucent line that surrounds the entire root of both the first and second molars?

- a. cementum
- b. eruption cyst
- c. lamina dura
- d. pdl space

page 112 figure 7-35

52. Identify the anatomical landmark that appears radiolucent between the apex of #20 and #21?

- a. acute apical abscess
- b. lingual frenum
- c. mental canal
- d. mental foramen

page 240 #332

53. How would you correct this error?

- a. make the vertical angulation more positive
- b. make the vertical angulation more negative
- c. move the film mesial
- d. no error present

week	lab	What is required of you before lab...
1	September 8 Introduction to the course horizontal bitewing - sensor placement with RINN. W	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapters 6 & 19
2	September 15 horizontal bitewing – vertical & horizontal angulation and centering BID intro to radiation biology W	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapters 4
3	September 22 horizontal bitewing – vertical & horizontal angulation and centering BID radiation biology W	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapters 4 & 5
4	September 29 vertical bitewing radiation biology review W	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapter 16
5	October 6 BWV\Written critique' 1. radiation biology quiz	
6	October 13 Anterior PA's sensor placement, vertical & horizontal <i>Radiography</i> angulation Charting bone level W	Reading Assign ment & study q uestions: <i>Dental Principles and Techniques</i> 4 th ed. Chapter 17. <i>Dental Hygiene Theory & Practice</i> 3 rd edition. pp340-342
7	October 20 Posterior PA's sensor placement, vertical & horizontal angulation Charting caries W	Reading Assign ment & study q uestions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapter 27. <i>Dental Hygiene Theory & Practice</i> 3 rd edition. pp403-404
8	October 27 infection control/ software program part one. FMX/BWV sensor placement intraorally Charting radiopaque and radiolucent W	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapter 15 & 28
9	November 3 FMX -paralleling technique with HBWV VBWV Charting primary/mixed dentition W	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapter 20
10	November 10 FMX-Written critique 2 Exposure time activity Distance activity	Reading Assign ment & study questions: <i>Dental Radiography Principles and Techniques</i> 4 th ed. Chapter 3

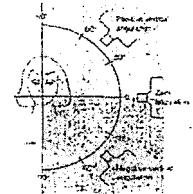
Open a *horizontal BWX template*. Place the sensor correctly in the mouth for each of the four BWX, use correct horizontal alignment of the BID for each BWX, and use correct alignment of BID over the sensors for each BWX. Change the vertical angulation for each BWX exposure; note the different vertical angulations for each of the BWXs.

R I G H T M O L A R B W X

Vertical angulation at +30

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom

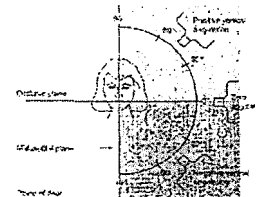


R I G H T P R E M O L A R B W X

Vertical angulation at +10

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom

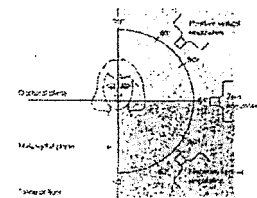


L E F T P R E M O L A R B W X

Vertical angulation at -10

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom

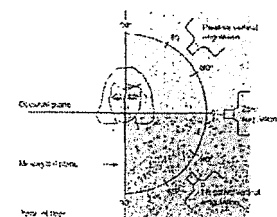


L E F T M O L A R B W X

Vertical angulation at -30

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom



Print the x-ray images.

Open a *bitewing template*.

Correctly place the sensor for a **right molar bitewing**. Correctly align the vertical and horizontal angulation for the right molar bitewing.

- Expose the image.

Without changing the two angulations, move the BID up so that the bottom of the BID is aligned with the max/man occlusal surface.

- Expose the image.

What part of the image is cut off (it will appear white)?

Did radiation hit the part of the sensor that appears white in the x-ray image? Explain.

How will you correct this error?

Correctly place the sensor for a **right premolar bitewing**. Correctly align the vertical and horizontal angulation for the right molar bitewing.

- Expose the image.

Without changing the two angulations, move the BID back (posteriorly) so that the posterior edge of the BID is aligned with the sideburns of plastic man.

- Expose the image.

What part of the image is cut off (it will appear white)?

Did radiation hit the part of the sensor that appears white in the x-ray image? Explain.

How will you correct this error?

Print x-ray images

Vertical Angulation of Bitewings on plastic man

Peer evaluated	Instructor evaluated	Student will correctly ...
		1. Position plastic man and appropriate lead apron
		2. Right molar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.
		3. Right premolar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.
		4. Left premolar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.
		5. Left molar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.

With a person correctly positioned 0° is the appropriate vertical angulation when taking a BWX

Using a bite tab (not the RINN system) with the direct digital system (type of sensor we have at XCC).

Depending on the client's dental arch the angulation may vary between 0° to $+10^\circ$, it is important to observe the occlusal surface is located in the middle of the BWX image.

Positive angulation will have the Tubehead pointing **UP or DOWN** (circle correct answer) and the BID/PID pointing **UP or DOWN** (circle correct answer)

If there is too much positive angulation which arch will be prominent on the BWX image?

- Negative angulation will have the Tubehead pointing **UP or DOWN** (circle correct answer) and the BID/PID pointing **UP or DOWN** (circle correct answer)

If there is too much negative angulation which arch will be prominent on the BWX image?

Name: _____

Vertical Angulation of Bite Willgs on plastic man

Peer evaluated	Instructor evaluated	Student will correctly...
		1. Position plastic man and appropriate lead apron
		2. Right molar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.
		3. Right premolar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.
		4. Left premolar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.
		5. Left molar image: equal amounts of maxillary and mandibular arches with the alveolar bone visible.

.: With a person correctly positioned 0° is the appropriate vertical angulation when taking a BWX using a bite tab (not the RINN system) with the direct digital system (type of sensor we have at KVCC),

Depending on the client's dental arch the angulation may vary between 0° to +10°, it is important to observe the occlusal surface is located in the middle of the BWX image.

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If there is too much positive angulation which arch will be prominent on the BWX image?

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If there is too much negative angulation which arch will be prominent on the BWX image?

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Without changing the two angulations, move the BID up so that the bottom of the BID is aligned with the max/man occlusal surface.

- Expose the image.

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Did radiation hit the part of the sensor that appears white in the x-ray image? Explain.

How will you correct this error?

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- Expose the image.

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- Expose the image.

What part of the image is cut off (it will appear white)?

Did radiation hit the part of the sensor that appears white in the x-ray image? Explain.

How will you correct this error?

Print x-ray images

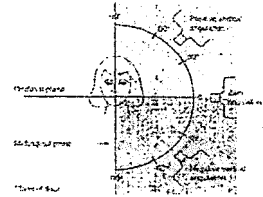
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R I G H T M O L A R B W X

Vertical angulation at +30

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- Closer to the top
- Middle
- Closer to the bottom

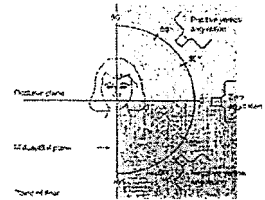


R I G H T P R E M O L A R B W X

Vertical angulation at +10

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom

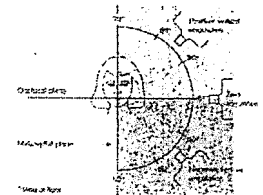


L E F T P R E M O L A R B W X

Vertical angulation at -10

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom

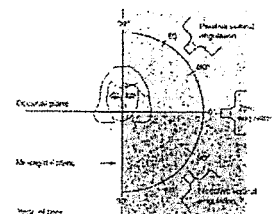


L E F T M O L A R B W X

Vertical angulation at -30

Look at the BWX image; where is the max/man occlusal surface located within the image? Circle the correct answer. On the picture, identify where the BID/Tubehead is located.

- Closer to the top
- Middle
- Closer to the bottom



Print the x-ray images.

Dental lab radiographic technique evaluation--B-WX

	client's right	client's left
1	2	3
4		

	right 12remolar bxw	left 12remolar bxw sensor	left molar bxw sensor placement
sensor placement	'1 X	'1 X	'1 X
too far anterior		too far anterior	too far anterior
too far posterior	'1 X	too far posterior	too far posterior
horizontal angulation		horizontal angulation	horizontal angulation
from the mesial		from the mesial	from the mesial
from the distal		from the distal	from the distal
vertical angulation	'1 X	vertical angulation	vertical angulation
too positive		too positive	too positive
too negative		too negative	too negative
centering the BID	Y X	centering the BID	centering the BID
too far anterior		too far anterior	too far anterior
too far posterior		too far posterior	too far posterior
too far superior		too far superior	too far superior
too far inferior		too far inferior	too far inferior

vertical Bitewings on plastic man – sensor placement

Peer evaluated	Instructor evaluated	Student will collectively ...
		1. Position plastic man and places protective wear on him
		2. Place right molar bite-block in the middle of the molars with size 2 sensor vertically and away from lingual surface of teeth.
		3. Align BID/Tubehead with RINN
		4. Select correct exposure time & expose
		5. Place right premolar bite block in the middle of the premolars with size 1 sensor vertically and away from lingual surface of teeth
		6. Align BID/Tubehead with RINN
		7. Select correct exposure time & expose
		8. Place left premolar bite block in the middle of the premolars with size 1 sensor vertically and away from lingual surface of teeth
		9. Align BID/Tubehead with RINN
		10. Select correct exposure time & expose
		11. Place left molar bite- block in the middle of the molars with size 2 sensor vertically and away from lingual surface of teeth.
		12. Align BID/Tubehead with RINN
		13. Select correct exposure time & expose

Molar BWXWhat tooth is the bite block placed on top of _____
 What size sensor?

Premolar BWX....What tooth is the bite block placed on top of _____
 What size sensor?

Is there an exposure (time) difference between the vertical molar and premolar BWX's?

Dental lab radiographic technique evaluation --BW X

	client's right		client's left	
1	2	3	4	

right molar bwx	right 12remolar bwx	left 12remolar bwx	left molar bwx
sensor placement X	sensor placement X	sensor placement X	sensor placement X
too far anterior	too far anterior	too far anterior	too far anterior
too far posterior X	too far posterior X	too far posterior X	too far posterior X
horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation
from the mesial	from the mesial	from the mesial	from the mesial
from the distal X	from the distal X	from the distal X	from the distal X
vertical angulation	vertical angulation	vertical angulation	vertical angulation
too positive	too positive	too positive	too positive
too negative X	too negative X	too negative X	too negative X
centering the BID	centering the BID	centering the BID	centering the BID
too far anterior	too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior	too far posterior
too far superior	too far superior	too far superior	too far superior
too far inferior	too far inferior	too far inferior	too far inferior

Dental lab radiographic technique evaluation--BWx

	client's right	client's left
	2	3
	2	4

right molar bwx	right gremolar bwx	left gremolar	left molar bwx
sensor placement -) X	sensor placement -) X	bwx sensor -) X	sensor placement -) X
too far anterior	_too far anterior	too far anterior	too far anterior
_too far posterior	_too far posterior	_too far posterior	_too far posterior
horizontal angulation -) X	horizontal angulation -) X	horizontal angulation -) X	horizontal angulation -) X
___from the mesial	___from the mesial	___ from the mesial	___from the mesial
___from the distal	___from the distal	___ from the distal	___from the distal
vertical angulation -) X	vertical angulation -) X	vertical angulation -) X	vertical angulation -) X
_too positive	_too positive	_too positive	_too positive
_too negative	_too negative	_too negative	_too negative
centering the BID -) X	centering the BID -) X	centering the BID -) X	centering the BID '1 X
too far anterior	too far anterior	too far anterior	too far anterior
_too far posterior	_too far posterior	_too far posterior	_too far posterior
_too far superior	_too far superior	_too far superior	_too far superior
___too far inferior	___too far inferior	___too far inferior	___too far inferior

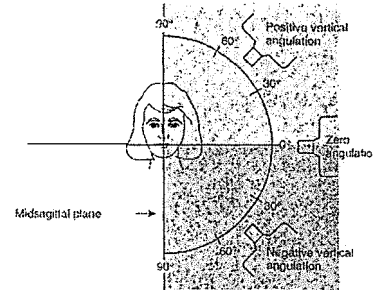
Choose Image exam type & save. Open a vertical BWX template. Expose images according to directions.

MAXILLARY CENTRAL PA – use entire RINN system
Vertical angulation perpendicular to film & tooth =

_____°

Where is the incisal surface of the incisors located on the image?

- Close to the top
- Middle
- Close to the bottom

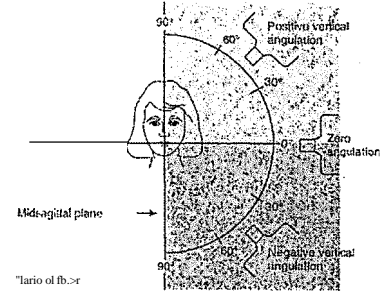


MAXILLARY CENTRAL PA -remove metal arm and ring

Original Vertical angulation = _____ + 15° = _____°

Where is the incisal surface of the incisors located on the image?

- Close to the top
- Middle
- Close to the bottom

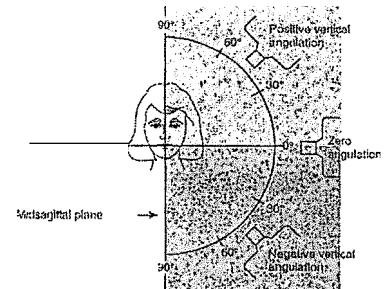


MAXILLARY CENTRAL PA -remove metal arm and ring

Original Vertical angulation = _____ + 30° = _____°

Where is the incisal surface of the incisors located on the image?

- Close to the top
- Middle
- Close to the bottom

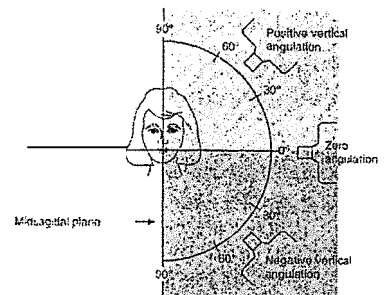


MAXILLARY CENTRAL PA -remove metal arm and ring

Original Vertical angulation = _____ - 20° = _____°

Where is the incisal surface of the incisors located on the image?

- Close to the top
- Middle
- Close to the bottom



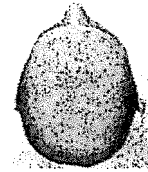
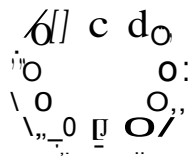
Print X-ray images.

Open a vertical BWX template. Expose the following images then look at the pictures to the side and circle the correct answer.

MAXILLARY CENTRAL INCISOR PA

Use proper vertical angulation (radiation perpendicular to the tooth & sensor in the vertical dimension). Align the horizontal angulation at 12:00 o'clock making sure the BID covers the sensor.

- Identify what teeth are present on the image?
- Identify which interproximal contacts are open



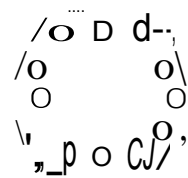
Is the radiation perpendicular to the tooth and sensor in the horizontal dimension? YES NO

Draw in the position of the PIO/tube head for each image. Compare a clock with a top view of a client's head....

MAXILLARY CENTRAL INCISOR PA -

remove metal arm and plastic ring. Use proper vertical angulation (radiation perpendicular to the tooth & sensor in the vertical dimension). Align the horizontal angulation to where the small hand would be for 1:00 o'clock making sure the BID covers the sensor

- Identify what teeth are present on the image?
- Identify which interproximal contacts are open



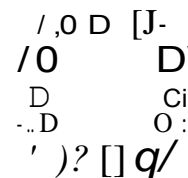
Is the radiation perpendicular to the tooth and sensor in the horizontal dimension? YES NO

Circle the horizontal angulation of the PID/tube head for each image. Compare a clock with a top view of a client's head

RIGHT MANDIBULAR MOLAR PA -

remove metal arm and plastic ring. Use proper vertical angulation (radiation perpendicular to the tooth & sensor in the vertical dimension). Align the horizontal angulation to where the small hand would be for 11:00 o'clock making sure the BID covers the sensor

- Identify what teeth are present on the image?
- Identify which interproximal contacts are open



Is the radiation perpendicular to the tooth and sensor in the horizontal dimension? YES NO

Print X-ray images.

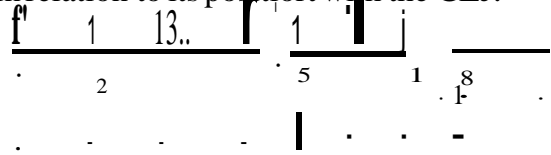
Draw in the position of the PIO/tube head for each image. Compare a clock with a top view of a client's head

Name _____

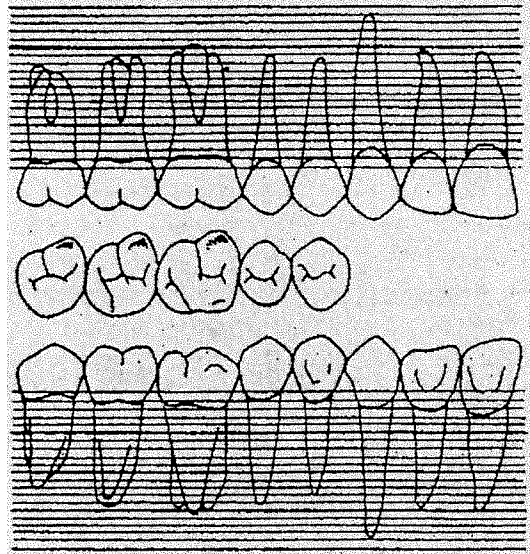
Charting Bone level

Bone level: Charted using the blue pencil. Healthy bone is 1.5 to 2.0 mm below the CEJ line. **Chart** **on the buccal view**, the line is placed in the proximal to the tooth, do not draw a line representing the bone level on top of the teeth. Always draw the bone level in relation to its position with the CEJ.

charting form and chart the bone level for each of these
For each of the following names fill out a radiographic



clients Keep these chartings because you will be charting more information as the week's progress in lab.



1'hre

Vertical & Horizontal Angulation of Anterior PA's on plastic man

Peer evaluated	Instructor evaluated	Student will correctly ...
		1. right maxillary canine: top of sensor towards posterior section of hard palate with maxillary canine centered on the bite block with very little of bite block extending beyond the tooth.
		2. right maxillary canine's key interproximal space is opened (maxillary canine and lateral incisor); BID/tubehead is horizontally angled at about 2:00.
		3. right maxillary lateral incisor: top of sensor towards posterior section of hard palate with maxillary lateral incisor centered on the bite block with very little of bite block extending beyond the tooth.
		4. right maxillary lateral incisor's key interproximal space is opened (lateral and central incisor); BID/tubehead is horizontally angled at about 1:00.
		5. maxillary central incisor: top of sensor towards posterior section of hard palate with interproximal of #8 & #9 centered on the bite block with very little of bite block extending beyond the tooth.
		6. maxillary central incisor's key interproximal space is opened lateral and central incisor; BID/tubehead is horizontally angled at about 12:00.
		7. left maxillary lateral incisor: top of sensor towards posterior section of hard palate with maxillary lateral incisor centered on the bite block with very little of bite block extending beyond the tooth.
		8. left maxillary lateral incisor's key interproximal space is opened (lateral and central incisor); BID/tubehead is horizontally angled at about 11:00.
		9. left maxillary canine: top of sensor towards posterior section of hard palate with maxillary canine centered on the bite block with very little of bite block extending beyond the tooth.
		10. left maxillary canine's key interproximal space is opened (maxillary canine and lateral incisor); BID/tubehead is horizontally angled at about 10:00.
		11. left mandibular canine: Lift tongue up and place top edge of sensor on the lingual frenum closest to the tongue with the mandibular canine centered on the bit block with very little bite block extending beyond the teeth.

		12. left mandibular canine's key interproximal space is opened (mandibular canine and lateral incisor); BID/tubehead is horizontally angled at about 10:15.
		13. left mandibular incisors: Lift tongue up and place top edge of sensor on the lingual frenum closest to the tongue with the mandibular incisors centered on the bit block with very little bite block extending beyond the teeth.
		14. left mandibular incisor's key interproximal space is opened (mandibular lateral and central incisor); BID/tubehead is horizontally angled at about 11:30.
		15. right mandibular incisors: Lift tongue up and place top edge of sensor on the lingual frenum closest to the tongue with the mandibular incisors centered on the bit block with very little bite block extending beyond the teeth.
		16. right mandibular incisor's key interproximal space is opened (mandibular lateral and central incisor); BID/tubehead is horizontally angled at about 12:30.
		17. right mandibular canine: Lift tongue up and place top edge of sensor on the lingual frenum closest to the tongue with the mandibular canine centered on the bit block with very little bite block extending beyond the teeth.
		18. right mandibular canine's key interproximal space is opened (mandibular canine and lateral incisor); BID/tubehead is horizontally angled at about 1:45.

circle correct choice

Positive angulation will have the BID pointing..... UP orDOWN

Positive angulation will have the Tubehead pointing UP or DOWN

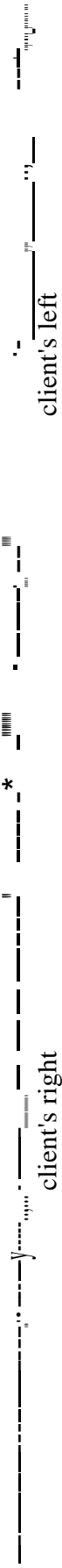
What type of vertical angulation (POSITIVE orNEGATIVE) will be used primarily in the maxillary arch?

Negative angulation will have the BID pointing..... UP orDOWN

Negative angulation will have the Tubehead pointing..... UP or DOWN

What type of vertical angulation (POSITIVE orNEGATIVE) will be used primarily in the mandibular arch?

Dental lab radiographic technique evaluation--PA'S maxillary anterior's



3	4	5	6	7

max right canine 12a	max right lateral incisor 12a	max central incisor pa	max left lateral incisor Qa	max left canine 12a
sensor placement ' / X ___ too far anterior ___ too far posterior vertical angulation ... / X ___ excessive ___ inadequate horizontal angulation ... / X ___ from the mesial ___ from the distal centering the BID , / X ___ too far anterior ___ too far posterior ___ too far superior ___ too far inferior	sensor placement ' / X ___ too far anterior ___ too far posterior vertical angulation ... / X ___ excessive ___ inadequate horizontal angulation ... / X ___ from the mesial ___ from the distal centering the BID V X too far anterior ___ too far posterior ___ too far superior ___ too far inferior	sensor placement ' / X ___ too far anterior ___ too far posterior vertical angulation ... / X ___ excessive ___ inadequate horizontal angulation ... / X ___ from the mesial ___ from the distal centering the BID V X too far anterior ___ too far posterior ___ too far superior ___ too far inferior	sensor placement ... / X ___ too far anterior ___ too far posterior vertical angulation , / X ___ excessive ___ inadequate horizontal angulation ... / X ___ from the mesial ___ from the distal centering the BID , / X too far anterior ___ too far posterior ___ too far superior ___ too far inferior	sensor placement ' / X ___ too far anterior ___ too far posterior vertical angulation ' / X ___ excessive ___ inadequate horizontal angulation , / X ___ from the mesial ___ from the distal centering the BID ... / X too far anterior ___ too far posterior ___ too far superior ___ too far inferior

Dental lab radiographic technique evaluation--P.A.'S mandibular anterior

	client's right	client's left	
15	14	13	12
man right canine ill!	man right incisor ill!	man left incisor ill!	man left canine ill!
sensor placement	sensor placement	sensor placement	sensor placement
_too far anterior	_too far anterior	_too far anterior	_too far anterior
_too far posterior	_too far posterior	_too far posterior	_too far posterior
vertical angulation	vertical angulation	vertical angulation	vertical angulation
_excessive	_excessive	_excessive	_excessive
_inadequate	_inadequate	_inadequate	_inadequate
horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation
from the mesial	from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal	from the distal
centering the BID	centering the BID	centering the BID	centering the BID
_too far anterior	_too far anterior	_too far anterior	_too far anterior
_too far posterior	_too far posterior	_too far posterior	_too far posterior
_too far superior	_too far superior	_too far superior	_too far superior
_too far inferior	_too far inferior	_too far inferior	_too far inferior

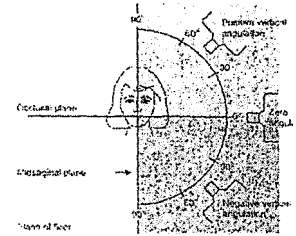
Open a horizontal BWX template to take the following images. With the image you obtained choose the answer closest to what you observe. Circle the angulation of the PIO/tube head for each image.

LEFT MANDIBULAR MOLAR PA - use complete RINN system

Vertical angulation perpendicular to film & tooth = _____°

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom

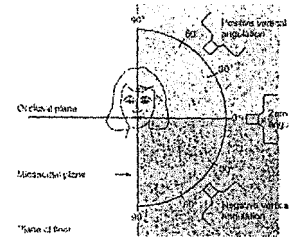


LEFT MANDIBULAR MOLAR PA - remove metal arm and ring of RINN system

Original Vertical angulation = - 15° = _____°

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom

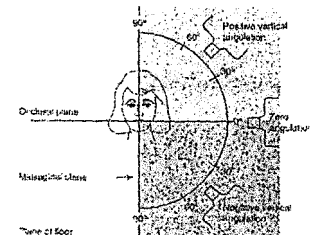


LEFT MANDIBULAR MOLAR PA - remove metal arm and ring of RINN system

Original Vertical angulation = - 30° = _____°

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom

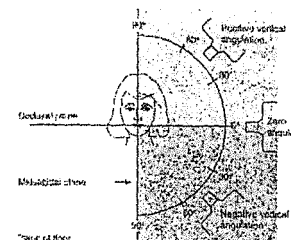


LEFT MANDIBULAR MOLAR PA - remove metal arm and ring of RINN system

Original Vertical angulation = _____° + 20° = _____°

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom



Print X-ray images

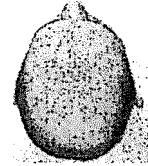
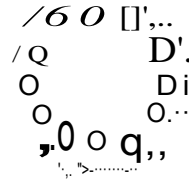
Open a vertical BWX template. Expose the following images then look at the pictures to the side and circle the correct answer.

MANDIBULAR RIGHT MOLAR PA

Use proper vertical angulation (radiation perpendicular to the tooth & sensor in the vertical dimension). Align the horizontal angulation at 1:30 o'clock making sure the BID covers the sensor.

- Identify what teeth are present on the image?
- Identify which interproximal contacts are open

Draw in the position of the PID/tube head for each image. Compare a clock with a top view of a client's head....



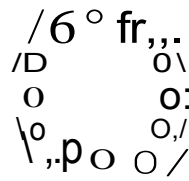
Is the radiation perpendicular to the tooth and sensor in the horizontal dimension? YES NO

MANDIBULAR RIGHT MOLAR PA

If using the RINN remove metal arm and plastic ring. Use proper vertical angulation (radiation perpendicular to the tooth & sensor in the vertical dimension). Align the horizontal angulation to where the small hand would be for 2:30 o'clock making sure the BID covers the sensor

- Identify what teeth are present on the image?
- Identify which interproximal contacts are open

Draw in the position of the PID/tube head for each image. Compare a clock with a top view of a client's head....



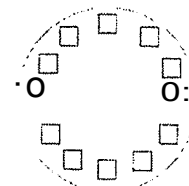
Is the radiation perpendicular to the tooth and sensor in the horizontal dimension? YES NO

MANDIBULAR RIGHT MOLAR PA

If using the RINN remove metal arm and plastic ring. Use proper vertical angulation (radiation perpendicular to the tooth & sensor in the vertical dimension). Align the horizontal angulation to where the small hand would be for 4:00 o'clock making sure the BID covers the sensor

- Identify what teeth are present on the image?
- Identify which interproximal contacts are open

Circle the horizontal angulation of the PID/tube head for each image. Compare a clock with a top view of a client's head



Is the radiation perpendicular to the tooth and sensor in the horizontal dimension? YES NO

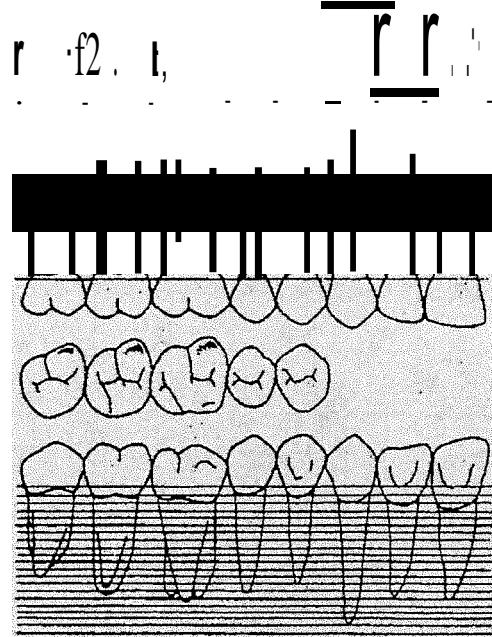
Print X-ray images.

Charting Caries

Caries: charted using the red pencil. Interproximal or root caries is charted on the buccal view all other caries are charted on the proper view. Draw the caries to the approximate size that you see on the image and color it solid red. If the caries is within

the enamel place an 'r' in the box above or below the tooth. This will be important for the intervention section in the client's care plan.

For each of the radiographic chartings that you completed for the bone level you will go back and view for caries. Keep these chartings because you will be charting more information as the week's progress in lab.



Vertical & Horizontal Angulation of Posterior PA's on plastic man

Peer evaluated	Instructor evaluated	Student will correctly...
		1. right maxillary molar: top of sensor towards the lingual surface of the left max molars with 2 nd molar centered on the bite block with very little of bite block extending beyond the tooth.
		2. right maxillary molar's key interproximal space is opened (maxillary 1 st & 2 nd molar); BID/tubehead is horizontally angled at about 2:30.
		3. right maxillary premolar: top of sensor towards the lingual surface of the left max premolars with the 1 st molar and 2 nd premolar centered on the bite block with very little of bite block extending beyond the tooth.
		4. right maxillary premolar's key interproximal space is opened (max 1 st molar and max 2 nd premolar); BID/tubehead is horizontally angled at about 2:15.
		5. left maxillary premolar: top of sensor towards the lingual surface of the right max premolars with the 1 st molar and 2 nd premolar centered on the bite block with very little of bite block extending beyond the tooth.
		6. left maxillary premolar's key interproximal space is opened (max 1 st molar and max 2 nd premolar); BID/tubehead is horizontally angled at about 9:45.
		7. left maxillary molar: top of sensor towards the lingual surface of the right max molars with 2 nd molar centered on the bite block with very little of bite block extending beyond the tooth.
		8. left maxillary molar's key interproximal space is opened (maxillary 1 st & 2 nd molar); BID/tubehead is horizontally angled at about 9:30.
		9. left mandibular molar: place top of sensor down into the sulcus between lingual surface of teeth and tongue (tongue should be on other side of sensor). Bite block is centered on 2 nd molar.
		10. left mandibular molar's key interproximal space is opened (mandibular 1 st and 2 nd molar). BID/tubehead is horizontally angled at about 9:30.
		11. left mandibular premolar: place top of sensor down into the sulcus between lingual surface of teeth and tongue (tongue should be on other side of sensor). Bite block is centered on 1 st molar and 2 nd premolar (as far anterior as possible - to include distal of canine).

		12. left mandibular premolar's key interproximal space is opened (mandibular 1 st molar and 2 nd premolar); BID/tubehead is horizontally angled at about 9:45.
		13. right mandibular premolar: place top of sensor down into the sulcus between lingual surface of teeth and tongue (tongue should be on other side of sensor). Bite block is centered on 1 st molar and 2 nd premolar (as far anterior as possible – to include distal of canine).
		14. right mandibular premolar's key interproximal space is opened (mandibular 1 st molar and 2 nd premolar); BID/tubehead is horizontally angled at about 2:15.
		15. right mandibular molar: place top of sensor down into the sulcus between lingual surface of teeth and tongue (tongue should be on other side of sensor). Bite block is centered on 2 nd molar.
		16. right mandibular molar's key interproximal space is opened (mandibular 1 st and 2 nd molar). BID/tubehead is horizontally angled at about 2:30.

circle correct choice

Positive angulation will have the BID pointing UP or DOWN

Positive angulation will have the Tubehead pointing UP or DOWN

What type of vertical angulation (POSITIVE or NEGATIVE) will be used primarily in the maxillary arch?

Negative angulation will have the BID pointing UP or DOWN

Negative angulation will have the Tubehead pointing UP or DOWN

What type of vertical angulation (POSITIVE or NEGATIVE) will be used primarily in the mandibular arch?

Dental lab radiographic technique evaluation--P.A'S premolars

-----"-----
client's left

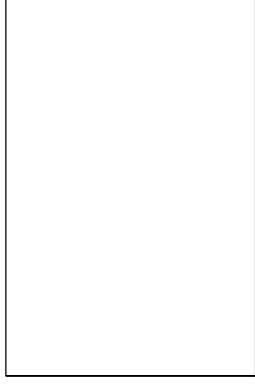
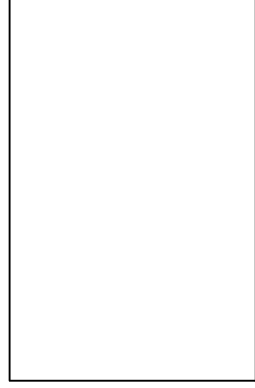
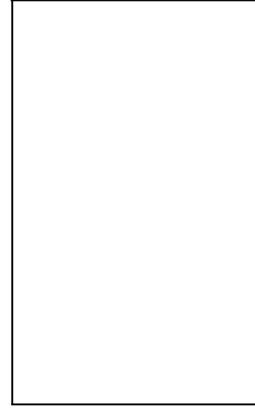
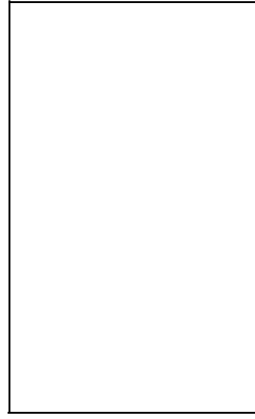
client's right

2

16

8

11



max right 12rcmolar 12a	..}	X
sensor placement	..}	X
__too far anterior		
__too far posterior		
vertical angulation	..}	X
__excessive		
__inadequate		
horizontal angulation	..}	X
__from the mesial		
__from the distal		
centering the BID	..}	X
__too far anterior		
__too far posterior		
__too far superior		
__too far inferior		

man right 12remolar 12a	..}	X
sensor placement	..}	X
__too far anterior		
__too far posterior		
vertical angulation	..}	X
__excessive		
__inadequate		
horizontal angulation	..}	X
__from the mesial		
__from the distal		
centering the BID	..}	X
__too far anterior		
__too far posterior		
__too far superior		
__too far inferior		

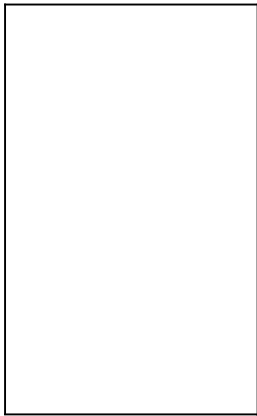
max left 12re11olar 12a	..}	X
sensor placement	..}	X
__too far anterior		
__too far posterior		
vertical angulation	..}	X
__excessive		
__inadequate		
horizontal angulation	..}	X
__from the mesial		
__from the distal		
centering the BID	..}	X
__too far anterior		
__too far posterior		
__too far superior		
__too far inferior		

man left 12re11olar 12a	..}	X
sensor placement	..}	X
__too far anterior		
__too far posterior		
vertical angulation	..}	X
__excessive		
__inadequate		
horizontal angulation	..}	X
__from the mesial		
__from the distal		
centering the BID	..}	X
__too far anterior		
__too far posterior		
__too far superior		
__too far inferior		

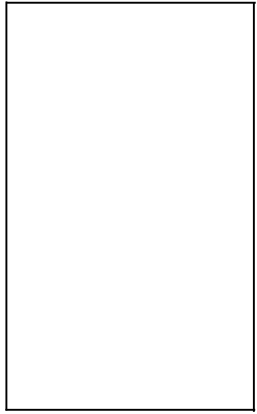
Dental lab radiographic technique evaluation--P.A'S molars

client's right

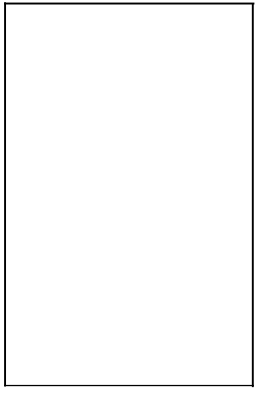
1



17

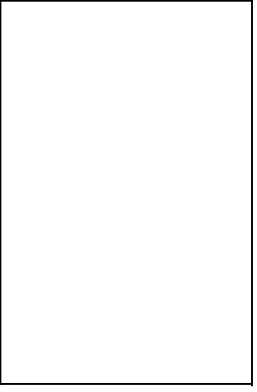


9



client's left

10



max right molar ga

packet placement **X**

too far anterior

too far posterior

vertical angulation **X**

excessive

inadequate

horizontal angulation

from the mesial

from the distal

centering the BID

too far anterior **X**

too far posterior

too far superior

too far inferior

max right molar ga

packet placement **X**

too far anterior

too far posterior

vertical angulation **X**

excessive

inadequate

horizontal angulation

from the mesial

from the distal

centering the BID

too far anterior **X**

too far posterior

too far superior

too far inferior

max left molar ga

packet placement **X**

too far anterior

too far posterior

vertical angulation **X**

excessive

inadequate

horizontal angulation

from the mesial

from the distal

centering the BID

too far anterior **X**

too far posterior

too far superior

too far inferior

max left molar ga

packet placement **X**

too far anterior

too far posterior

vertical angulation **X**

excessive

inadequate

horizontal angulation

from the mesial

from the distal

centering the BID

too far anterior **X**

too far posterior

too far superior

too far inferior

Infection control

Peer evaluated	Instructor evaluated	Student will collectively ...
		1. follow universal precautions with adequate personal protective equipment (PPE).
		2. surface disinfect the semi-critical areas – the x-ray machine, dental chair, lead apron and work area.
		3. barrier protection of... BID/tubehead. dental chair – headrest. Digital sensors. keyboard & mouse.
		4. have tray with mouth wash and sensor holders available
		5. have client rinse 30 seconds with mouthwash and then seat the client
		6. explain 2 radiation protective measures to follow for the client.
		7. explain 2 radiation protective measures to follow for themselves.
		8. follow post procedural steps – removing barrier protection and surface disinfection of semi critical areas.
		9. place the tube head in the proper "non-use" position.
		10. turn the machine off.

N:m.:

Softwareprogram part one

Peer evaluated	Instructor evaluated	Student will c01Tectly...
		1. open the EagleSoft software program –Assistant (for lab u oses).
		2. open your personal clinical exam in the Assistant EagleSoft.
		3. choose the exam type for exposing radiographic images (images).
		4. change the status to complete and save the exam at the <u>bottom of the screen</u> .
		5. have the sensor attached to the x-ray machine prior to opening a template screen.
		6. choose vertical BWX template and expose 4 vertical bitewings.
		9. close the clinical exam and exit out of Assistant EagleSoft.

* plastic man will be set up with the right premolar bitewing.

Name: _____

Bite block placement and Vertical Angulation of Anterior PA's on a partner

Peer evaluated	Instructor evaluated	Student will correctly ...
		1. Have partner rinse with mouthwash
		2. Attach sensor holder (bite block) to the sensor.
		Maxillary arch—position max arch parallel with floor
		3. Right canine; top of sensor towards posterior section of hard palate with maxillary canine centered on bite block.
		4. Right canine and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		5. Right lateral incisor; top of sensor towards posterior section of hard palate with maxillary lateral incisor centered on bite block.
		6. Right lateral incisor and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		7. Central incisors; top of sensor towards posterior section of hard palate with interproximal of #8 & #9 centered on bite block.
		8. Central incisors and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		9. Left lateral incisor; top of sensor towards posterior section of hard palate with maxillary lateral incisor centered on bite block.
		10. Left lateral incisor and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		11. Left canine; top of sensor towards posterior section of hard palate with maxillary canine centered on bite block.
		12. Left canine and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.

Peer evaluated	Instructor evaluated	Student will correctly ...
		Mandibular arch—position man arch parallel with floor
		13. Right canine; lift tongue up place top of sensor on lingual frenum closest to tongue with mandibular canine centered on bite block.
		14. Right canine and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		15. Right central/lateral incisor; lift tongue up place top of sensor on lingual frenum closest to tongue with #25 & #26 centered on bite block.
		16. Right central/lateral incisor and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		17. Left central/lateral incisor; lift tongue up place top of sensor on lingual frenum closest to tongue with #23 & #24 centered on bite block.
		18. Left central/lateral incisor and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions..
		19. Left canine; lift tongue up place top of sensor on lingual frenum closest to tongue with mandibular canine centered on bite block.
		20. Left canine and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		21. Demonstrate in 10 minutes or less.

Nare:

Bite block placement and Vertical Angulation of Posterior PA's on a partner

Peer evaluated	Instructor evaluated	Student will collect...
		1. Have partner rinse with mouthwash; if they haven't already
		Maxillary arch parallel with the floor
		2. Right premolar top of sensor placed near the lingual surface of the left premolars
		3. Bite block on marginal ridges of maxillary 1 st molar and 2 nd premolars—image includes distal of canine.
		4. Right premolar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions..
		5. Right molar sensor placement near lingual surface of maxillary left molars.
		6. Bite block on maxillary 2 nd molar—sensor includes 3 rd molar area.
		7. Right molar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions..
		8. Left premolar top of sensor placed near lingual surface of right premolars.
		9. Bite block on marginal ridges of maxillary 1 st molar and 2 nd premolars—sensor includes distal of canine.
		10. Left premolar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions..
		11. Left molar top of sensor placement near lingual surface of right molars.
		12. Bite block on maxillary 2 nd molar—sensor includes 3 rd molar area.
		13. Left molar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.

Peer-evaluated	Instructor evaluated	Student will correctly...
		m
		Mandibular arch parallel with the floor
		14. Right premolar top of sensor placed down into sulcus between lingual surface of teeth and tongue, with tongue on other side of sensor.
		15. Bite block on marginal ridges of mandibular 1 st molar and 2 nd premolars—image includes distal of canine.
		16. Right premolar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		17. Right molar top of sensor placed down into sulcus between lingual surface of teeth and tongue, with tongue on other side of sensor.
		18. Bite block on mandibular 2 nd molar—image includes 3 rd molar area.
		19. Right molar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		20. Left premolar top of sensor placed down into sulcus between lingual surface of teeth and tongue, with tongue on other side of sensor.
		21. Bite block on marginal ridges of mandibular 1 st molar and 2 nd premolars—sensor includes distal of canine.
		22. Left premolar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		23. Left molar top of sensor placed down into sulcus between lingual surface of teeth and tongue, with tongue on other side of sensor.
		24. Bite block on mandibular 2 nd molar—sensor includes 3 rd molar area.
		25. Left molar and sensor parallel, BID/tubehead aligned perpendicular to tooth & sensor in both vertical & horizontal dimensions.
		26. Demonstrate in 12 minutes or less

Nire

Horizontal Bitewing placement on a partner

Peer evaluate	Instructor	Student will correctly...
		1. Have partner rinse 30 seconds with mouth wash. If they haven't already
		2. Position partner's head...occlusal surface parallel with floor
		3. Right molar sensor placement near midline and bite block on the 2 nd molar. (must include distal of last molar exposed to oral cavity)
		4. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 2:30.
		5. Right premolar sensor placement near midline and bite block on the marginal ridges of the 2 nd premolar & 1 st molar. (must include distal of canine)
		6. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 2:15.
		7. Left premolar sensor placement near midline and bite block on the marginal ridges of the 1 st premolar & 2 nd premolar. (must include distal of canine)
		8. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 9:45.
		9. Left molar sensor placement near midline and bite block on the 2 nd molar. (must include distal of last molar exposed to oral cavity)
		10. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 9:30.
		11. Completed in 5 minutes or less.

1. Place sensor close to the lingual surface of the teeth and have your partner bite down on the tab. Explain what happens.
2. Place the sensor near the midline of the mouth (away from the lingual surfaces) and have your partner bite down on the tab. Explain what happens.

Always place the sensor near to the

Nnle:

Vertical Bitewing placement on a partner

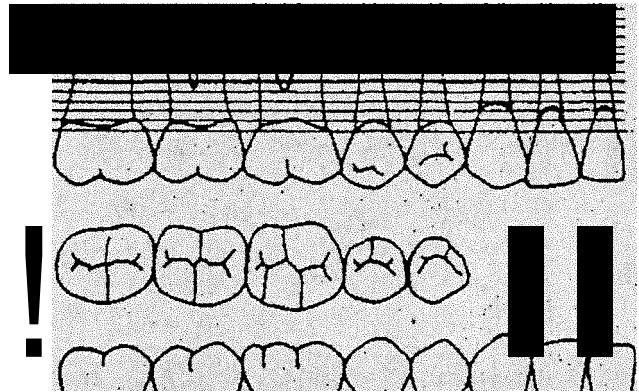
Peer evaluated	Instructor	Student will correctly...
		1. Have partner rinse 30 seconds with mouth wash if they haven't
		2. Position partner's head...occlusal surface parallel with the floor
		12. Right molar sensor placement near midline and bite block on the 2 nd molar. Center the vertically positioned size 2 sensor on the molars.
		13. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 2:30.
		14. Right premolar sensor placement near midline and bite block centered on the premolars with the vertically positioned size 1 sensor.
		15. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 2:15.
		16. Left premolar sensor placement near midline and bite block centered on the premolars with the vertically positioned size 1 sensor.
		17. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 9:45.
		18. Left molar sensor placement near midline and bite block on the 2 nd molar. Center the vertically positioned size 2 sensor on the molars.
		19. Vertical angulation of BID/tubehead is aligned with RINN; horizontal angulation of BID/tubehead is at 9:30.
		20. Completed in 5 minutes or less.

What teeth are required to be in a Premolar Bitewing Image?

What teeth are required to be in a Molar Bitewing Image?

Charting Radiopaque & Radiolucent

Radiolucent area: Charted using the blue pencil. The area needs to be drawn as an outline area approximately the size of the radiolucent lesion/abnormality.



Radiopaque area: Charted using the blue pencil. The area needs to be drawn as an outline area approximately the size of the radiopaque area.

r f r r r r r i

32

For each of the following names tilt-out a radiographic charting form and chart the level for each of these clients and any other radiolucent or radiopaque anomalies/lesions that you identify in the radiographic image. Keep these chartings, you will be charting more items

completed

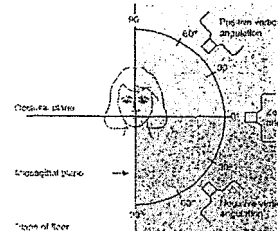
Choose image exam type & save. Open a horizontal BWX template. With the image you obtained choose the answer closest to what you observe. Circle the angulation of the PIO/tube head for each image.

LEFT MAXILLARY MOLAR PA - use complete RINN system

Vertical angulation perpendicular to film & tooth = _____ °

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom

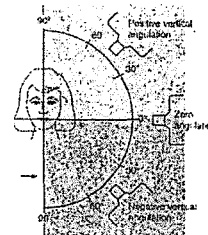


LEFT MAXILLARY MOLAR PA - remove metal arm and ring of RINN system

Original Vertical angulation = + 15° = _____ °

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom

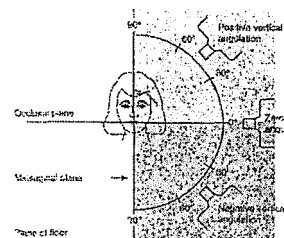


LEFT MAXILLARY MOLAR PA - remove metal arm and ring of RINN system

Original Vertical angulation = + 30° = _____ °

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom

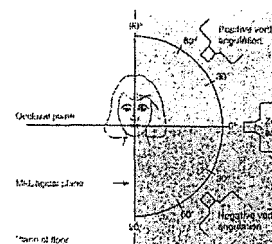


LEFT MAXILLARY MOLAR PA - remove metal arm and ring of RINN system

Original Vertical angulation = _____ - 20° = _____ °

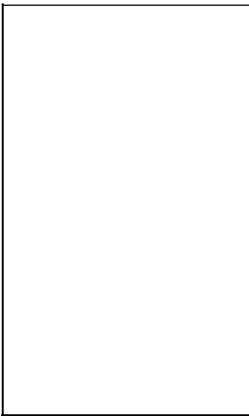
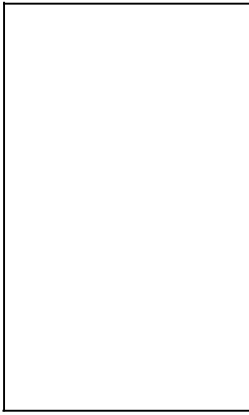
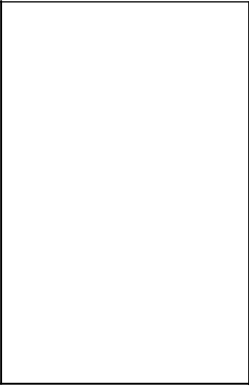

Where is the occlusal surface of the molars located within the image?

- Close to the top
- Middle
- Close to the bottom



Print X-ray images

Dental lab radiographic technique evaluation--PA'S premolars

	client's right	client's left	
2	16	8	11
			

max right i;remolar i;ia	max left i2remolar i;ia	max left i2remolar i;ia	man left i2remolar i;ia
sensor placement ,/ X	sensor placement ,/ X	sensor placement ,/ X	sensor placement ,/ X
too far anterior	too far anterior	too far anterior	too far anterior
too far posterior ,/ X	too far posterior ,/ X	too far posterior ,/ X	too far posterior ,/ X
vertical angulation excessive	vertical angulation excessive	vertical angulation excessive	vertical angulation excessive
inadequate	inadequate	inadequate	inadequate
horizontal angulation ,/ X	horizontal angulation ,/ X	horizontal angulation ,/ X	horizontal angulation ,/ X
from the mesial	from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal	from the distal
centering the BID ,/ X	centering the BID ,/ X	centering the BID ,/ X	centering the BID ,/ X
too far anterior	too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior	too far posterior
too far superior	too far superior	too far superior	too far superior
too far inferior	too far inferior	too far inferior	too far inferior

Dental lab radiographic technique evaluation--P.A.'S mandibular anterior's

client's right _____ client's left

15	14	13	12

man ri ght canine pa	man right incisor I2a	man left incisor I2a	man left canine pa
X	X	X	X
sensor placement	sensor placement	sensor placement	sensor placement
___ too far anterior	___ too far anterior	___ too far anterior	___ too far anterior
___ too far posterior	___ too far posterior	___ too far posterior	___ too far posterior
vertical angulation	vertical angulation	vertical angulation	vertical angulation
___ excessive	___ excessive	___ excessive	___ excessive
___ inadequate	___ inadequate	___ inadequate	___ inadequate
horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation
from the mesial	from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal	from the distal
centering the BID	centering the BID	centering the BID	centering the BID
___ too far anterior	___ too far anterior	___ too far anterior	___ too far anterior
___ too far posterior	___ too far posterior	___ too far posterior	___ too far posterior
___ too far superior	___ too far superior	___ too far superior	___ too far superior
___ too far inferior	___ too far inferior	___ too far inferior	___ too far inferior

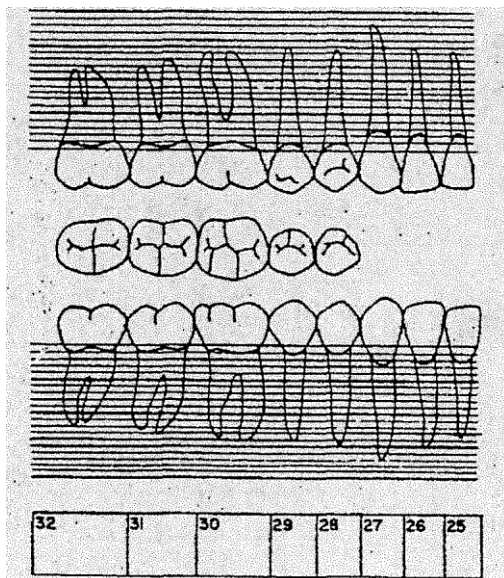
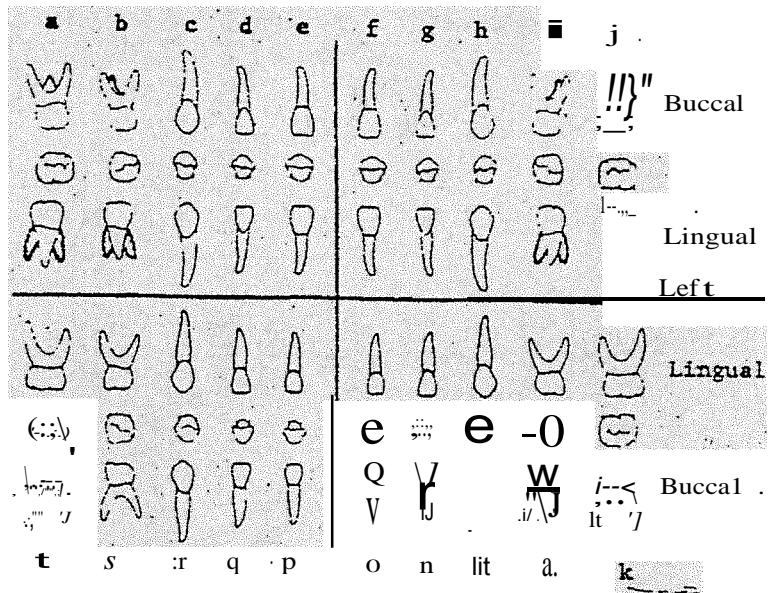
Dental lab radiographic technique evaluation.--BWX

		client's right		client's left	
		2	3	4	
right molar bwx	"1 X	right 2remolar bwx	"1 X	left Qremolar bwx	"1 X
sensor placement		sensor placement		sensor placement	
__too far anterior		__too far anterior		__too far anterior	
__too far posterior		__too far posterior		__too far posterior	
horizontal angulation	'1 X	horizontal angulation	'1 X	horizontal angulation	'1 X
__from the mesial		__from the mesial		__from the mesial	
__from the distal		__from the distal		__from the distal	
vertical angulation	"1 X	vertical angulation	"1 X	vertical angulation	'1 X
__too positive		__too positive		__too positive	
__too negative		__too negative		__too negative	
centering the BID	"1 X	centering the BID	"1 X	centering the BID	'1 X
__too far anterior		__too far anterior		__too far anterior	
__too far posterior		__too far posterior		__too far posterior	
__too far superior		__too far superior		__too far superior	
__too far inferior		__too far inferior		__too far inferior	

1'a.m _____, -----

Charting Primary/mixed dentition

• Tooth Buds: Charted using the blue pencil: The tooth/teeth are drawn on the chart approximately in the area they are located within the mouth. *If all tooth buds are present you can write on the chart.. "all tooth buds present?".



name :	date of FMX!BWX	completed

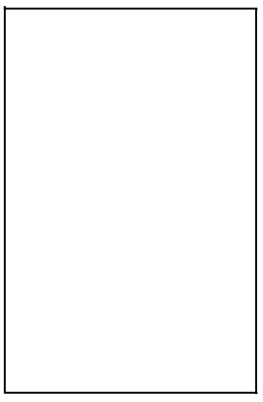
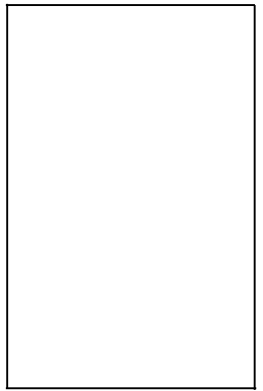
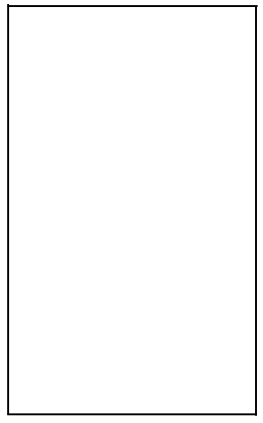
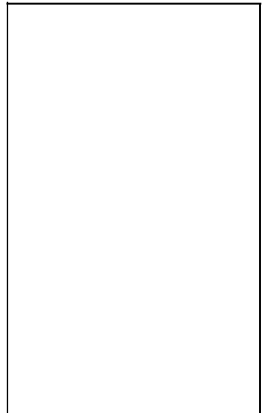
Dental lab radiographic technique evaluation--PA'S molars

client's right client's left

17

9

10







max ri ght molar Qa	man ri ght molar Qa	max left molar Qa	man left molar 12a
packet placement '1 X	packet placement '1 X	packet placement '1 X	packet placement '1 X
too far anterior	too far anterior	too far anterior	too far anterior
too far posterior '1 X	too far posterior '1 X	too far posterior '1 X	too far posterior '1 X
vertical angulation	vertical angulation	vertical angulation	vertical angulation
excessive	excessive	excessive	excessive
inadequate	inadequate	inadequate	inadequate
horizontal angulation '1 X	horizontal angulation '1 X	horizontal angulation '1 X	horizontal angulation '1 X
from the mesial	from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal	from the distal
centering the BID -/ X	centering the BID '1 X	centering the BID '1 X	centering the BID '1 X
too far anterior	too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior	too far posterior
too far superior	too far superior	too far superior	too far superior
too far inferior	too far inferior	too far inferior	too far inferior

Dental lab radiographic technique evaluation--PA'S premolars

	client's right	client's left	
2	16	8	11
max right 12remolar 12a	max left 12remolar 12a	max left 12remolar 12a	max left 12remolar 12a
sensor placement / X	sensor placement / X	sensor placement / X	sensor placement / X
___too far anterior	___too far anterior	___too far anterior	___too far anterior
___too far posterior	___too far posterior	___too far posterior	___too far posterior
vertical angulation / X	vertical angulation / X	vertical angulation / X	vertical angulation / X
excessive	excessive	excessive	excessive
___i nadeq uate	___i nadeq uate	___i nadeq uate	___i nadeq uate
horizontal angulation '1 X	horizontal angulation / X	horizontal angulation '1 X	horizontal angulation '1 X
___from the mesial	___from the distal	___from the distal	___from the distal
___from the d istal	centering the BID	centering the BID	centering the BID
centering the BID '1 X	too far anterior	___too far anterior	___too far anterior
___too far anterior	___too far posterior	___too far posterior	___too far posterior
___too far posterior	___too far superior	___too far superior	___too far superior
___too far superior	___too far inferior	___too far inferior	___too far inferior

Dental lab radiographic technique evaluation--PA.' S mandibular anterior:r's

		client's right			client's left		
15		14		13		12	
man right canine		man right incisor 12a		man left incisor pa		man left canine pa	
12a sensor placement	j	sensor placement	j	sensor placement	j	sensor placement	j
too far anterior		too far anterior		too far anterior		too far anterior	
too far posterior		too far posterior		too far posterior		too far posterior	
vertical angulation	j	vertical angulation	j	vertical angulation	j	vertical angulation	j
excessive		excessive		excessive		excessive	
inadequate		inadequate		inadequate		inadequate	
horizontal angulation	v	horizontal angulation	v	horizontal angulation	v	horizontal angulation	y
from the mesial		from the mesial		from the mesial		from the mesial	
from the distal		from the distal		from the distal		from the distal	
centering the BID	j	centering the BID	j	centering the BID		centering the BID	j
too far anterior		too far anterior		too far anterior		too far anterior	
too far posterior		too far posterior		too far posterior		too far posterior	
too far superior		too far superior		too far superior		too far superior	
too far inferior		too far inferior		too far inferior		too far inferior	

Dental lab radiographic technique evaluation--PA'S maxillary a:n.terior's

	client's right			client's left			
3		4		5		7	

max right canine 12a	max right later incisor 12a	max central incisor 12a	max left lateral incisor pa	max left canine pa
'/X	" X	" X	'/X	" X
sensor placement	sensor placement	sensor placement	sensor placement	sensor placement
too far anterior	too far anterior	too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior	too far posterior	too far posterior
vertical angulation	vertical angulation	vertical angulation	vertical angulation	vertical angulation
excessive	excessive	excessive	excessive	excessive
inadequate	inadequate	inadequate	inadequate	inadequate
horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation
from the mesial	from the mesial	from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal	from the distal	from the distal
centering the BID	centering the BID	centering the BID	centering the BID	centering the BID
too far anterior	too far anterior	too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior	too far posterior	too far posterior
too far superior	too far superior	too far superior	too far superior	too far superior
too far inferior	too far inferior	too far inferior	too far inferior	too far inferior

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Dental lab radiographic technique evaluation--BWXX

client's right

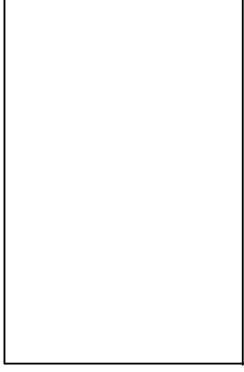
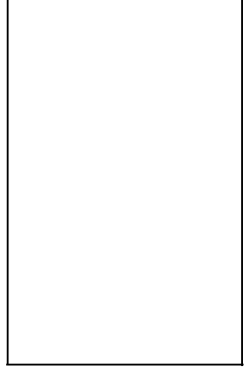
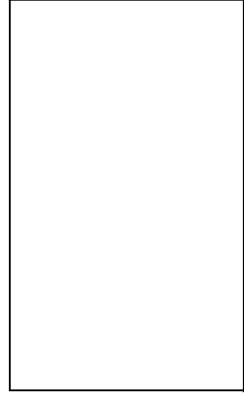
client's left

1

2

3

4



right molar bwx	right 12remolar bwx	left 12remolar bwx	left molar bwx
sensor placement / X	sensor placement / X	sensor placement '1 X	sensor placement / X
__too far anterior	too far anterior	too far anterior	too far anterior
__too far posterior / X	__too far posterior X	__too far posterior X	__too far posterior X
horizontal angulation	horizontal angulation III	horizontal angulation III	horizontal angulation III
__from the mesial	__from the mesial	from the mesial	__from the mesial
__from the distal	__from the distal	from the distal	__from the distal
vertical angulation / X	vertical angulation / X	vertical angulation / X	vertical angulation '1 X
__too positive	__too positive	__too positive	__too positive
__too negative	__too negative	__too negative	__too negative
centering the BID / X	centering the BID '1 X	centering the BID / X	centering the BID / X
__too far anterior	too far anterior	too far anterior	too far anterior
__too far posterior	__too far posterior	__too far posterior	__too far posterior
__too far superior	__too far superior	__too far superior	__too far superior
__too far inferior	too far inferior	too far inferior	too far inferior

Choose correct exam type & save. Open a lab mandibular posterior PA's template. This activity is a series of 7 BWX images and the effects of exposure time on the image. Correctly place a sensor for a horizontal right premolar BWX. Adjust the vertical and horizontal angulation to correctly expose a premolar BWX. The BID needs to completely cover the sensor. Do not move the sensor or the BID for each of the following exposures.

1. Expose the premolar BWX using the correct exposure setting for plastic man. The correct exposure time for plastic man is _____
***This exposure time will be referred to as the original exposure time.**
2. Increase original exposure by pushing up button 3X.
What happens to the image?
3. Increase original exposure by pushing up button 6X.
What happens to the image?
4. Increase original exposure by pushing up button 9X.
What happens to the image?

5. Decrease original exposure by pushing down button 1X.
What happens to the image?
6. Decrease original exposure by pushing down button 2X.
What happens to the image?
7. Decrease original exposure by pushing down button 3X.
What happens to the image?

Print X-ray images.

Open a horizontal BWX template for this part of the exercise. With the sensor still placed for a horizontal premolar BWX, set the exposure time correctly for plastic man.

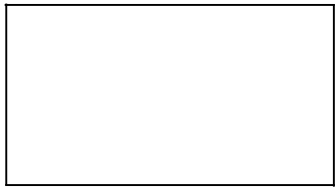
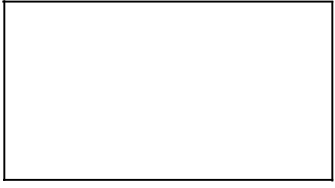
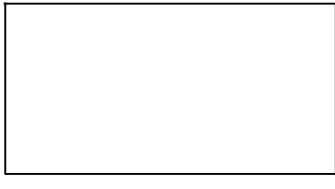


1. With the correct horizontal and vertical angulation, centering of the BID, and the BID close to plastic man's cheek take the premolar image.
2. Pull the BID straight away from plastic man's cheek while having a partner make two fists, placing their fists between the BID and plastic man's cheek. Everyone leave the room and expose the image.
What happens to the image?
3. Pull the BID further away while having both partners making four fists; place their fists between the BID and plastic man's cheek. Everyone leave the room and expose the image.
What happens to the image?

Print X-ray images.

Dental lab radiographic technique evaluation--PA'S molars

client's right		client's left	
1	17	9	10
max right mo JarQa	max right molar Qa	max left molar Qa	max left molar 12a
packet placement '1 X	packet placement '1 X	packet placement '1 X	packet placement '1 X
__too far anterior	__too far anterior	too far anterior	too far anterior
__too far posterior	__too far posterior	__too far posterior	__too far posterior
vertical angulation '1 X	vertical angulation '1 X	vertical angulation '1 X	vertical angulation '1 X
excessive	excessive	excessive	excessive
__i nadequate	__i nadequate	__i nadequate	__i nadequate
horizontal angulation '1 X	horizontal angulation '1 X	horizontal angulation '1 X	horizontal angulation '1 X
__from the mesial	__from the mesial	from the mesial	__from the mesial
__from the distal	__from the distal	__from the distal	__from the distal
centering the BID '1 X	centering the BID '1 X	centering the BID '1 X	centering the BID '1 X
__too far anterior	__too far anterior	too far anterior	__too far anterior
__too far posterior	__too far posterior	__too far posterior	__too far posterior
__too far superior	__too far superior	__too far superior	__too far superior
too far inferior	too far inferior	too far inferior	too far inferior or

Dental lab radiographic technique evaluation: n.p.a.'s maxillary anteriors

	client's right			client's left					
3		4		5		6		7	
	max right canine pa	max right later incisor pa	max central incisor pa	max left lateral incisor pa	max left canine pa				
	'/ X	,/ X	,/ X	Y X	-,/ X				-,/ X
	sensor placement	sensor placement	sensor placement	sensor placement	sensor placement				sensor placement
	___ too far anterior	___ too far anterior	___ too far anterior	___ too far anterior	___ too far anterior				___ too far anterior
	___ too far posterior	___ too far posterior	___ too far posterior	___ too far posterior	___ too far posterior				___ too far posterior
	vertical angulation	vertical angulation	vertical angulation	vertical angulation	vertical angulation				vertical angulation
	___ excessive	___ excessive	___ excessive	___ excessive	___ excessive				___ excessive
	___ inadequate	___ inadequate	___ inadequate	___ inadequate	___ inadequate				___ inadequate
	horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation				horizontal angulation
	___ from the mesial	___ from the mesial	___ from the mesial	___ from the mesial	___ from the mesial				___ from the mesial
	___ from the distal	___ from the distal	___ from the distal	___ from the distal	___ from the distal				___ from the distal
	centering the BID	centering the BID	centering the BID	centering the BID	centering the BID				centering the BID
	___ too far anterior	___ too far anterior	___ too far anterior	___ too far anterior	___ too far anterior				___ too far anterior
	___ too far posterior	___ too far posterior	___ too far posterior	___ too far posterior	___ too far posterior				___ too far posterior
	___ too far superior	___ too far superior	___ too far superior	___ too far superior	___ too far superior				___ too far superior
	___ too far inferior	___ too far inferior	___ too far inferior	___ too far inferior	___ too far inferior				___ too far inferior

Dental lab radiographic technique evaluation--PA'S mandibular anteriors

	client's right	client's left
15	14	12
man right canine pa	man right incisor pa	man left canine pa
sensor placement ___too far anterior ___too far posterior vertical angulation ___excessive ___inadequate horizontal angulation ___from the mesial ___from the distal centering the BID ___too far anterior ___too far posterior ___too far superior ___too far inferior	sensor placement ___too far anterior ___too far posterior vertical angulation ___excessive ___inadequate horizontal angulation ___from the mesial ___from the distal centering the BID ___too far anterior ___too far posterior ___too far superior ___too far inferior	sensor placement ___too far anterior ___too far posterior vertical angulation ___excessive ___inadequate horizontal angulation ___from the mesial ___from the distal centering the BID ___too far anterior ___too far posterior ___too far superior ___too far inferior
/	/	/
/	/	/
/	/	/
/	/	/

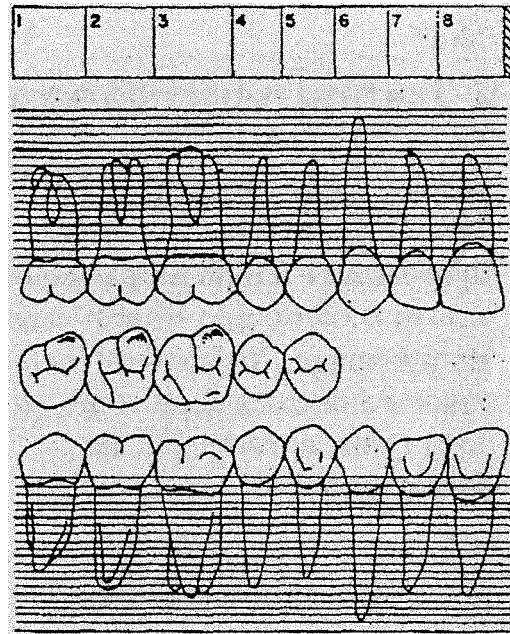
Dental lab radiographic technique evaluation--BW

	client's right	client's left
1	2	3
4		

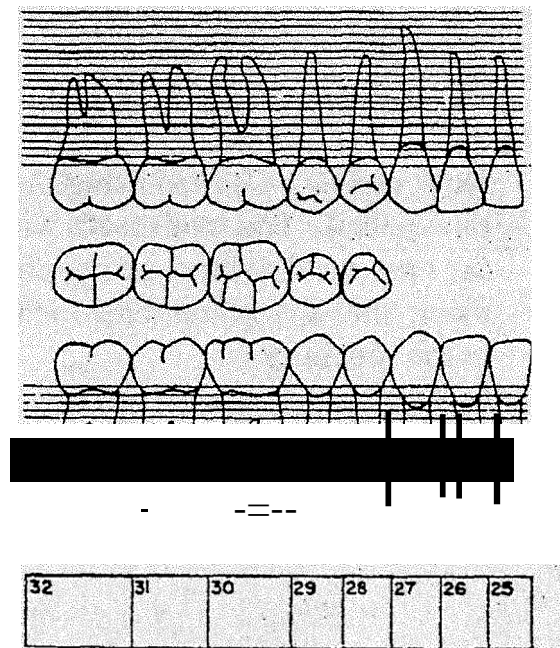
	right Qremolar bwx	left Qremolar bwx	left molar bwx
sensor placement	/ X	/ X	/ X
___ too far anterior	___too far anterior	___too far anterior	too far anterior
___ too far posterior	___too far posterior	___too far posterior	___too far posterior
horizontal angulation	-/ X	-/ X	horizontal angulation
___from the mesial	___from the mesial	___from the mesial	___from the mesial
___from the distal	___from the distal	___from the distal	___from the distal
vertical angulation	-/ X	-/ X	vertical angulation
___too positive	___too positive	___too positive	___too positive
___too negative	___too negative	___too negative	___too negative
centering the BID	-/ X	-/ X	centering the BID
___too far anterior	___too far anterior	too far anterior	___too far anterior
___too far posterior	___too far posterior	___too far posterior	___too far posterior
___too far superior	___too far superior	___too far superior	___too far superior
___too far inferior	___too far inferior	too far inferior	___too far inferior

Bridges: Charted using the blue pencil. The crowns are outlined with slash marks on the crowns. The pontic tooth must have the root 'X' out.

Implants: Charted using the blue pencil. The crowns are outlined with slash marks on the crowns. Draw the root how the implant appears in the image. Add an "f" in the box apical to the tooth.



Overhang: Charted using the blue pencil. The area of the overhang is drawn as a solid blue triangle next to the proximal surface.



Dental lab radiographic technique evaluation--P.A S premolars

client's right

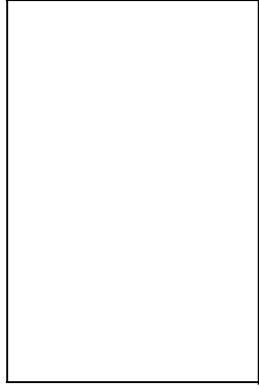
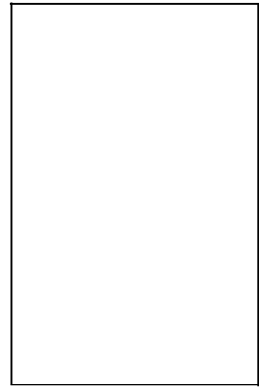
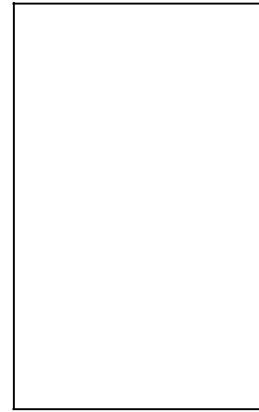
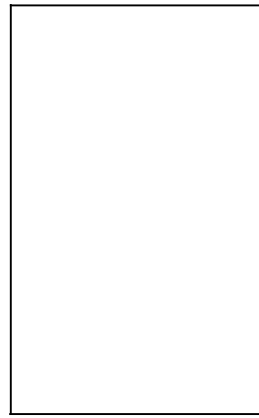
client's left

2

16

8

11



max right gremolar ga	,}	X			
sensor placement					
_too far anterior					
_too far posterior					
vertical angulation	,}	X			
_excessive					
_inadequate					
horizontal angulation	,}	X			
_from the mesial					
_from the distal					
centering the BI D	,}	X			
_too far anterior					
_too far posterior					
_too far superior					
_too far inferior					

max right gremolar ga	,}	X			
sensor placement					
_too far anterior					
_too far posterior					
vertical angulation	,}	X			
_excessive					
_inadequate					
horizontal angulation	,}	X			
_from the mesial					
_from the distal					
centering the BI D	,}	X			
_too far anterior					
_too far posterior					
_too far superior					
_too far inferior					

max left gremolar Ga	,}	X			
sensor placement					
too far anterior					
_too far posterior					
vertical angulation	,}	X			
_excessive					
_inadequate					
horizontal angulation	,}	X			
_from the mesial					
_from the distal					
centering the BID	,}	X			
_too far anterior					
_too far posterior					
_too far superior					
_too far inferior					

max left Qremolar ga	,}	X			
sensor placement					
too far anterior					
_too far posterior					
vertical angulation	,}	X			
_excessive					
_inadequate					
horizontal angulation	,}	X			
_from the mesial					
_from the distal					
centering the BI D	,}	X			
_too far anterior					
_too far posterior					
_too far superior					
_too far inferior					

Dental lab radiographic -technique evaluation--P.A'S mandibular anteriors

	client's right	client's left
15	14	12
man right canine ga	man right incisor pa	man left incisor ga
Y X	Y X	Y X
sensor placement	sensor placement	sensor placement
too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior
vertical angulation	vertical angulation	vertical angulation
excessive	excessive	excessive
inadequate	inadequate	inadequate
horizontal angulation	horizontal angulation	horizontal angulation
from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal
centering the BID	centering the BID	centering the BID
too far anterior	too far anterior	too far anterior
too far posterior	too far posterior	too far posterior
too far superior	too far superior	too far superior
too far inferior	too far inferior	too far inferior
Y X	Y X	Y X
man left canine ill		
sensor placement		sensor placement
too far anterior		too far anterior
too far posterior		too far posterior
vertical angulation		vertical angulation
excessive		excessive
inadequate		inadequate
horizontal angulation		horizontal angulation
from the mesial		from the mesial
from the distal		from the distal
centering the BID		centering the BID
too far anterior		too far anterior
too far posterior		too far posterior
too far superior		too far superior
too far inferior		too far inferior
Y X	Y X	Y X

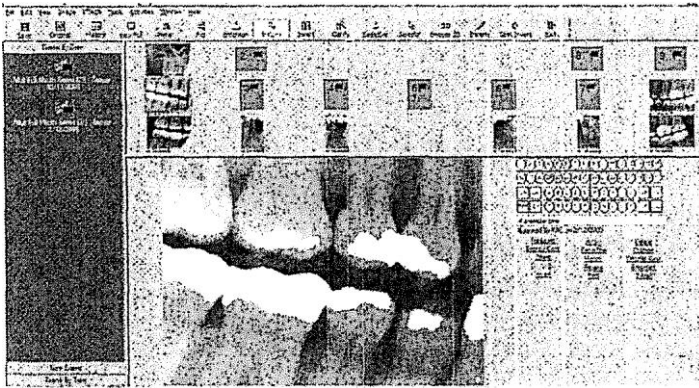


Image is lighter

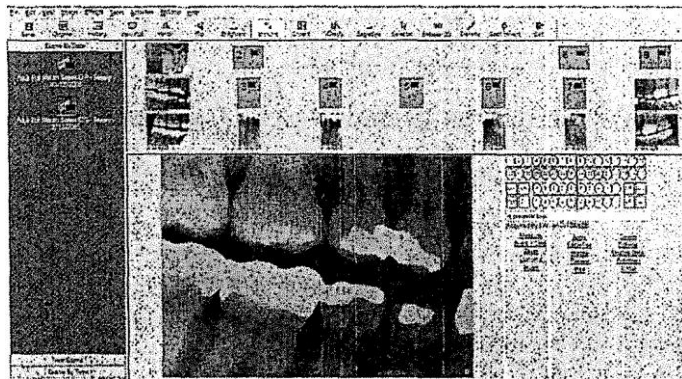


Image is darker

Use the software filters to change the way the image looks-with human teeth this may help with interpretation.

Density (overall darkness/blackness) and Contrast (amount of grays)

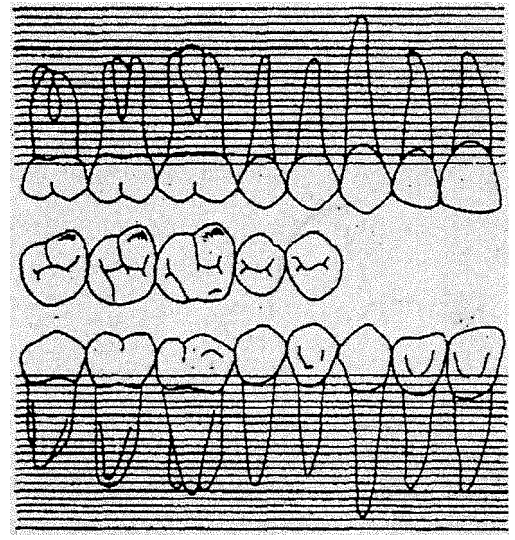
Density needs to be adjusted first, once density is correct contrast can be adjusted.



High contrast-few grays

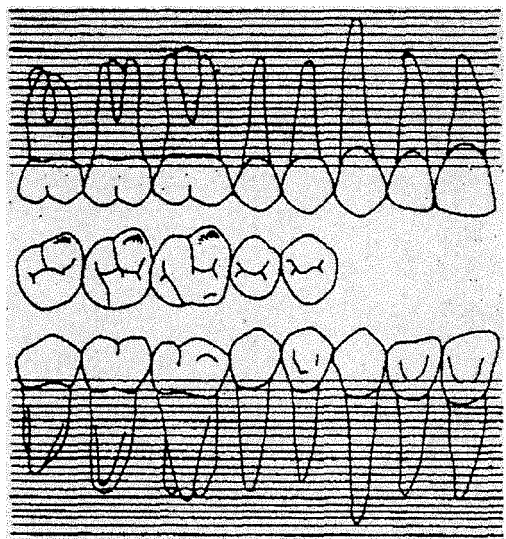
- **Extracted or missing tooth/teeth:**
- Charted using the blue pencil. One line or an "X" is drawn through the tooth/teeth that are extracted—you can not see on the radiographic image

1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

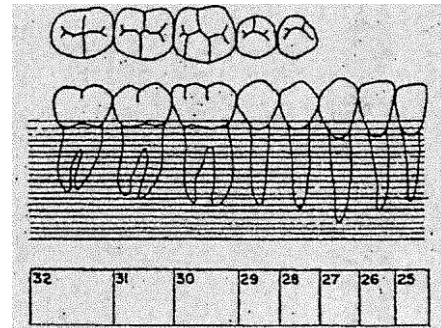


Uneruptoo, or partial erupted teeth: Charted using the blue pencil. The tooth/teeth are drawn on the buccal view of the chart approximately in the area they are located within the mouth. Or draw a box around all three views of the tooth.

1 2 3 4 5 6 7 8

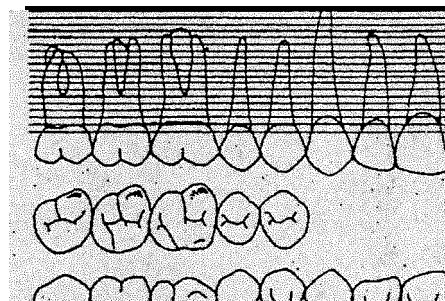


Pulp Stone: Charted using the blue pencil. The pulp stone is drawn within the center of the crown and color it solid blue. A note should be made above the tooth.
"P.S.:"



Enamel Pearl: Charted using the blue pencil. The enamel pearl is drawn within the center of the crown and color it solid blue. A note should be made above the tooth 'EPJ'.

12 14 16 18 20



For each of the following names you have already started a radiographic chart now go back to the various series and complete the chart of the above miscellaneous items.

completed

Name: _____

Charting Miscellaneous

!bots; yhed, usilg {he blue..

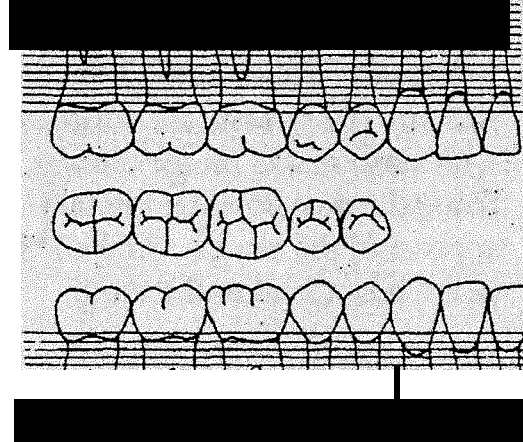
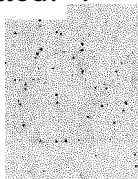
pn, fit :Jt'te root& af n9tthe':.

apptbximit length they should, be

dran according to what YOU see

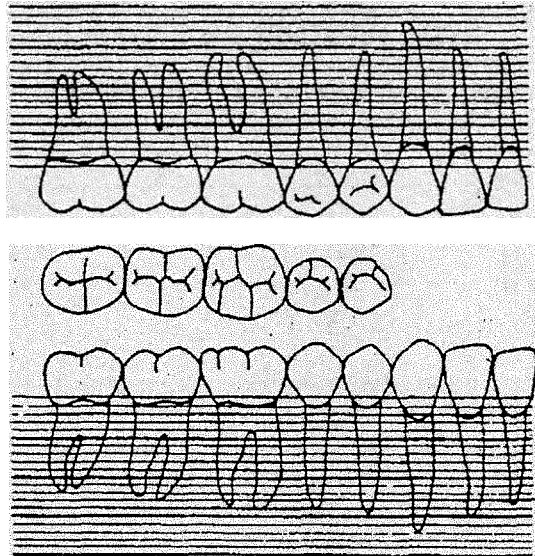
on the m. age_... This would include resorbed or extra short roots, extra

long-roots, Or roots that are dilacated.



32	31	30	29	28	27	26	25
----	----	----	----	----	----	----	----

Rot, a.nals: Charted using the
 blue'pew it Thetooth/teeth with
 the roof :canal(s) must'be drawn
 using lines extending from the CEJ
 j:o the root apx. ;. .,



r r r rrrri

Name: _____

CHARTING

Peer evaluated	Instructor evaluated	Student will correctly ...
		1. Charts all bone level.
		2. Charts caries if present.*
		3. Charts roots: dilacerations, resorption, extra-long if present.*
		4. Charts radiolucencies if present.*
		5. Charts radiopacities if present.*
		6. Charts root canals, overhanging margins, bridges, implants, and pulp stones if present.*
		7. Charts unerupted teeth, tooth buds, supernumerary teeth, and missing teeth if present.*
		8. Has forms for charting evaluation filled out and available.
		9. Charting is neat and legible.

* If abnormalities are not present you may have to demonstrate any or all of these charting requirements.

Dental lab radiographic technique evaluation--P.A 'S molars

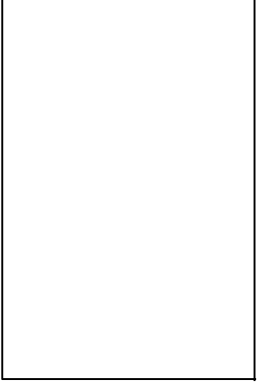
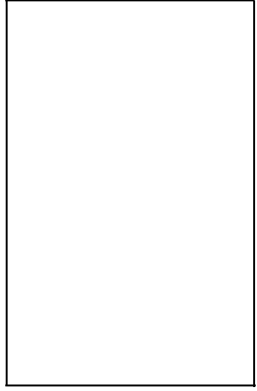
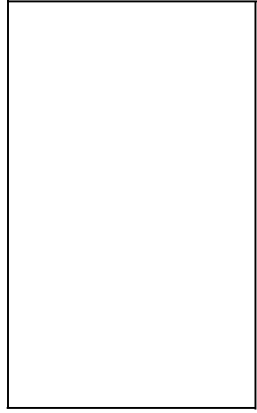
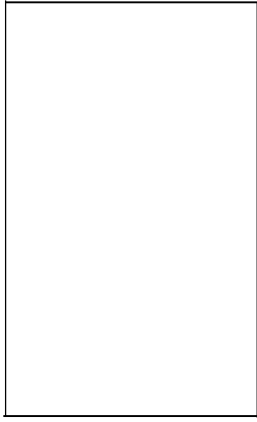
client's right

client's left

17

9

10



max right molar 12a

packet placement ,/ X

too far anterior

too far posterior

vertical angulation ,/ X

excessive

inadequate

horizontal angulation ,/ X

from the mesial

from the distal

centering the BID ,/ X

too far anterior

too far posterior

too far superior

too far inferior

max left molar 12a

packet placement > X

too far anterior

too far posterior

vertical angulation ,/ X

excessive

inadequate

horizontal angulation ,/ X

from the mesial

from the distal

centering the BID , ,/ X

too far anterior

too far posterior

too far superior

too far inferior

man right molar 12a

packet placement > X

too far anterior

too far posterior

vertical angulation ,/ X

excessive

inadequate

horizontal angulation ,/ X

from the mesial

from the distal

centering the BID ,/ X

too far anterior

too far posterior

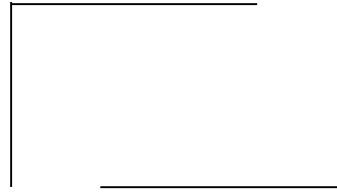
too far superior

too far inferior

Dental lab radiographic technique evaluation--P.A.s maxillary anteriors



3



4



5



6



7



max right canine I2a

sensor placement

___too far anterior

___too far posterior

vertical angulation

___excessive

___inadequate

horizontal angulation

___from the mesial

___from the distal

centering the BID

___too far anterior

___too far posterior

___too far superior

___too far inferior

max right lateral incisor pa

sensor placement

___too far anterior

___too far posterior

vertical angulation

___excessive

___inadequate

horizontal angulation

___from the mesial

___from the distal

centering the BID

___too far anterior

___too far posterior

___too far superior

___too far inferior

max central incisor Qa

sensor placement

___too far anterior

___too far posterior

vertical angulation

___excessive

___inadequate

horizontal angulation

___from the mesial

___from the distal

centering the BID

___too far anterior

___too far posterior

___too far superior

___too far inferior

max left lateral incisor pa

sensor placement

___too far anterior

___too far posterior

vertical angulation

___excessive

___inadequate

horizontal angulation

___from the mesial

___from the distal

centering the BID

___too far anterior

___too far posterior

___too far superior

___too far inferior

max left canine pa

sensor placement

___too far anterior

___too far posterior

vertical angulation

___excessive

___inadequate

horizontal angulation

___from the mesial

___from the distal

centering the BID

___too far anterior

___too far posterior

___too far superior

___too far inferior

Den.ta.I lab radiographic technique evaluation--BWx

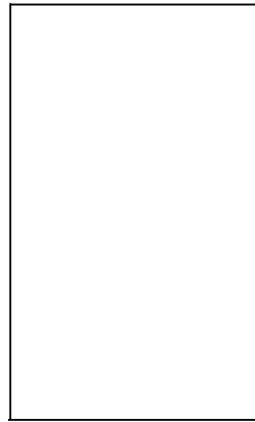
client's left

4

3

2

1



client's right

	right molar bwx	right premolar bwx	left premolar bwx	left molar bwx
sensor placement	-1 X	-1 X	-1 X	-1 X
___too far anterior		too far anterior	too far anterior	too far anterior
___too far posterior	-1 X	___too far posterior	___too far posterior	___too far posterior
horizontal angulation	-1 X	horizontal angulation	horizontal angulation	horizontal angulation
___from the mesial		___from the mesial	from the mesial	from the mesial
___from the distal		___from the distal	from the distal	from the distal
vertical angulation	-1 X	vertical angulation	vertical angulation	vertical angulation
___too positive		___too positive	___too positive	___too positive
___too negative		___too negative	___too negative	___too negative
centering the BID	-1 X	centering the BID	centering the BID	centering the BID
___too far anterior		___too far anterior	too far anterior	too far anterior
___too far posterior		___too far posterior	___too far posterior	___too far posterior
___too far superior		___too far superior	___too far superior	___too far superior
___too far inferior		too far inferior	too far inferior	too far inferior

Software processing part two

Quickly expose a bitewing series.

Right click on the right molar bitewing

Choose copy to clipboard and left click

Left click on new exams (lower left hand corner)

Choose Non-diagnosable template—a FMX template will appear

Place cursor over the slot where the right molar bitewing would be

Right click and choose acquire from clipboard and left click

The molar bitewing is now in the slot

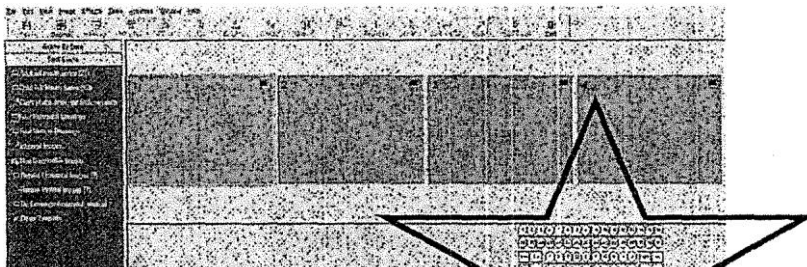
Click save

Open Horizontal retake template

Retake the right molar bitewing image

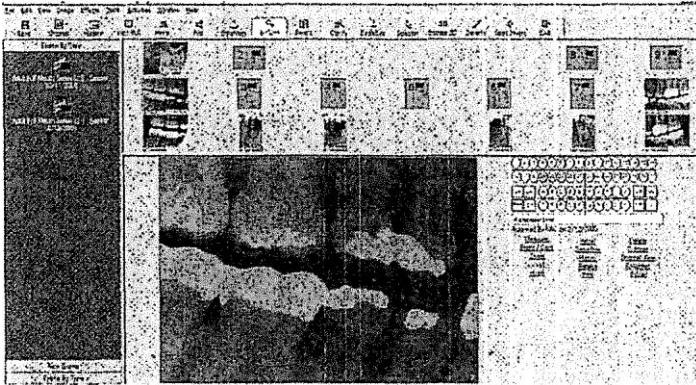
Make sure that the image you just took is in the correct position e.g. you may have to flip or mirror the image

Click save

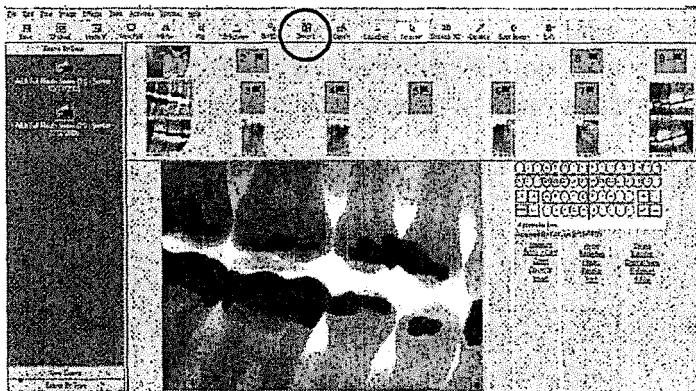


With the image highlighted click on the correct teeth numbers in the lower right hand corner (within the star)

Type the name of this image under description (right molar bitewing)



Low contrast-many grays



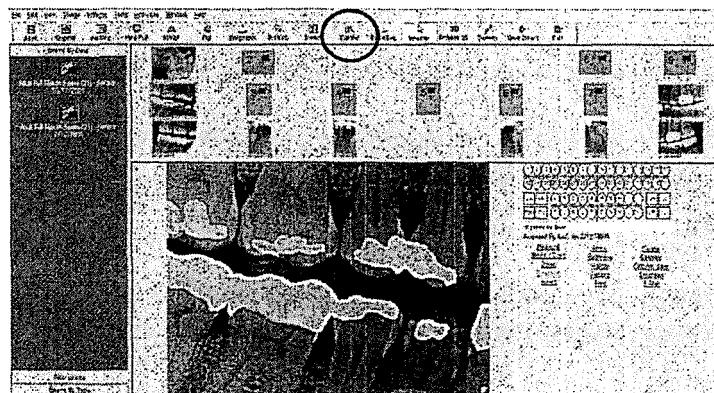
Click invert.

Click edit

Click undo

Or click image history and undo what filters you have applied to the image

Image will appear as a normal x-ray



Click clarify

Click edit

Click undo

Or click image history and undo what filters you have applied to the image

Image will appear as a normal x-ray

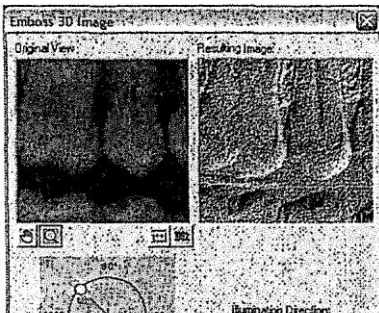


Click 3-D emboss and this image will appear

Click on the box that has a 2-way red arrow, this will makes the full image appear

With the cursor over the sun left click and move the sun around the circle, this changes the direction of where the sun is shining from.

If you need to focus in on a particular area-left click on the magnifying glass and left click on the area of interest. ..



I clicked on the proximal space of teeth #3 and #4. You can also move this image with a left click on the hand and then left click on the image and move the mouse around.

Click edit

Click undo

Or click image history and undo what filters you have applied to the image

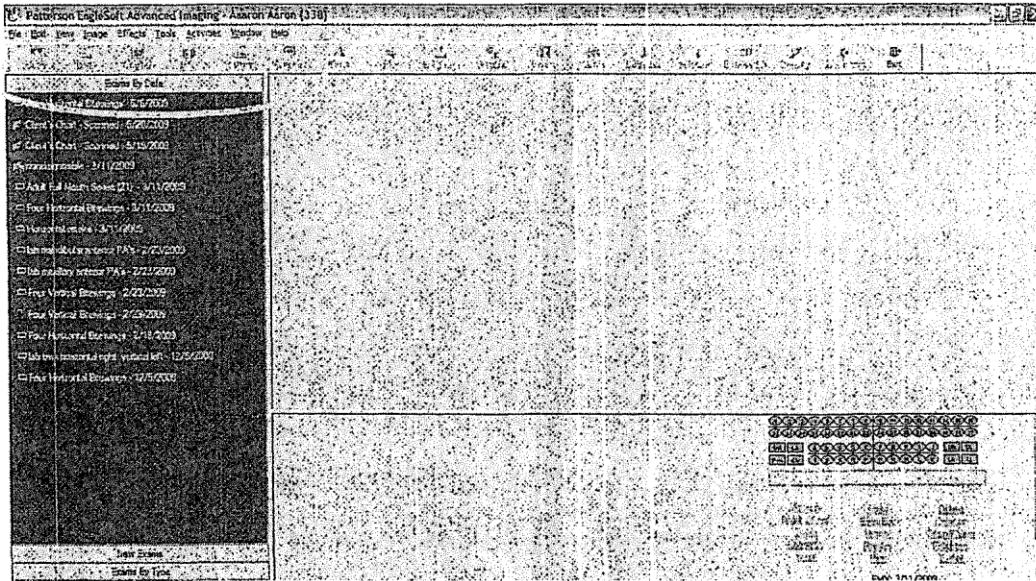
Image will appear as a normal x-ray

Copy the original image (make sure you have undone all the filters that you have tested) to the clipboard and paste it into the original bitewing series.

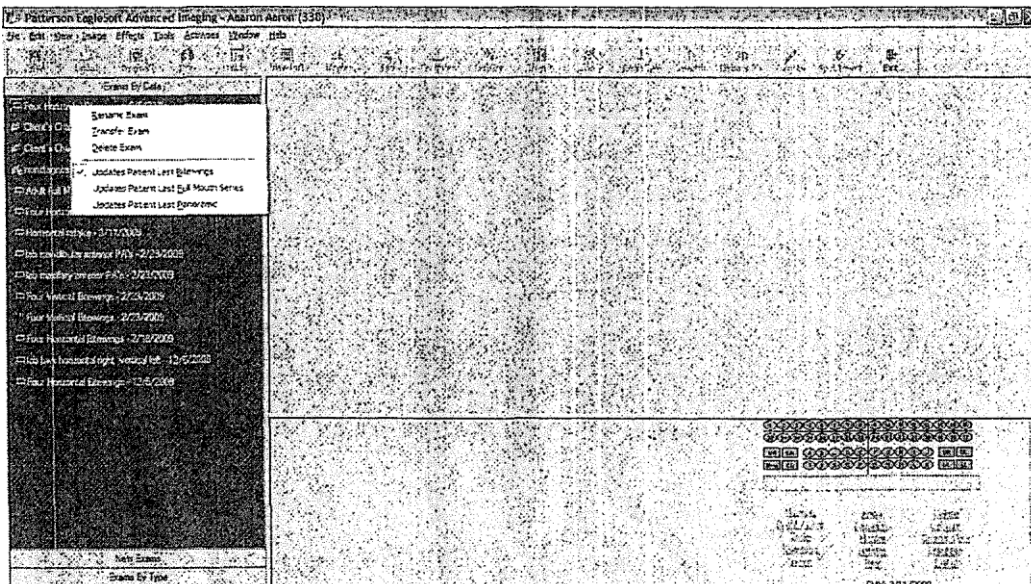
Change template name

The template names may be changed; to do so you must be in the Advanced imaging view which is pictured below.

You must be under Exams by Date!!!!!!! Do not attempt to change the name of the template under New Exams this will cause the template to be listed by whatever name you have changed the template.



Then right mouse click on the template you want to change its name and a white box will appear; left click over rename exam and type in new name e.g. accessory PA's.



If the original template that you want to rename is either a BWX or FMX template then you will also want to right mouse click over the exam and then left click to remove the check mark in front of Updates Patient's last Bitewing or Full Mouth Series

Name: _____

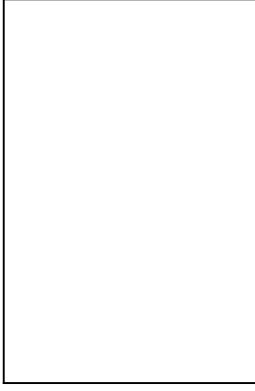
Softwareprocessing Part Two

Pe.er evaluated	Instructor evaluated	Student will conectly...
		1. move <u>ALL</u> non-diagnosable images into the non-diagnosable tern late.:
		2. expose retakes in the retake template.
		3. flip or mirror images in order to evaluate for diagnostic quality (Labial view of image)
		4. move diagnostic images into the bitewing template.
		5. check image information to make sure each image is correctly attached to a tooth number.
		6. demonstrate how to change density first (if needed) than contrast.
		7. demonstrate how to invert an image.
		8. demonstrate how to revert image back to original.
		9. demonstrate how to clarify an image.
		10. demonstrate how to revert image back to original.
		11. demonstrate how to use 3D emboss on an image.
		12. demonstrate how to revert image back to original.

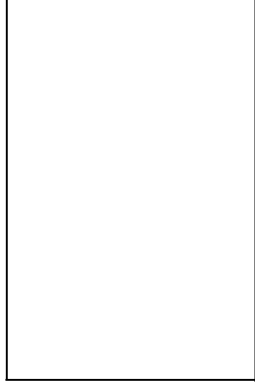
Dental lab radiographic technique evaluation--PA 'S molars

client's leH

10



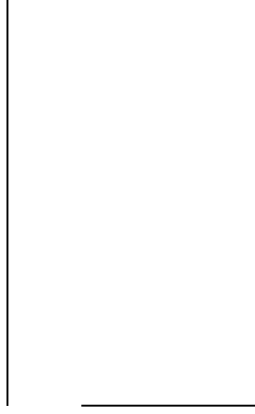
9



17



1



client's right

	max right molar ga	man right molar ga	max left molar ga	illanleft molarQa
packet placement	·y X	·y X	·y X	·y X
___too far anterior		___too far anterior	too far anterior	___too far anterior
___too farposterior		___too far posterior	___too far posterior	___too farposterior
vertical angulation	·y X	vertical angulation	vertical angulation	vertical angulation
excessive		___ excessive	___ excessive	___excessive
___inadequate		___inadequate	___inadequate	___i nadequate
horizontal angulation	·y X	horizontal angulation	horizontal angulation	horizontal angulation
___from the mesial		___from the mesial	___from the mesial	___from the mesial
___ from the d istal		___from the d istal	___from the distal	___from the distal
centering the BID	·y X	centering the BID	centering the BID	centering the BID
___ anterior		too far	___too far anterior	___too far anterior
___too farposterior		too far anterior	___too farposterior	___too farposterior
___too far superior		___too farposterior	___too farsuperior	___too far superior
___too far inferior		___too far superior	too far inferior	___too far inferior

Dental lab radiographic technique evaluation--P.A'S maxillary anteriors

client's right client's left

client's right client's left

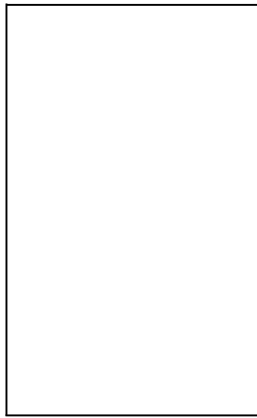
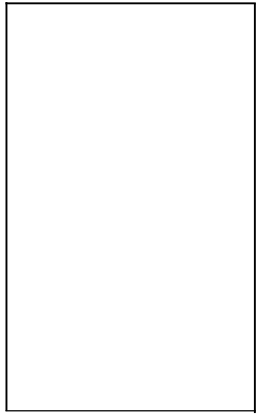
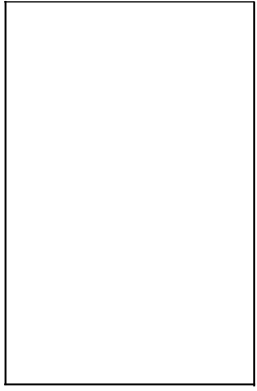
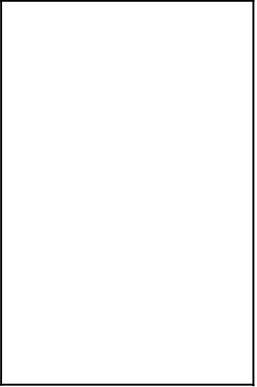
3	4	5	6	7

max right canine pa	max right lateral incisor 12a	max central incisor 12a	max left lateral incisor pa	max left canine 12a
sensor placement <input checked="" type="checkbox"/> X too far anterior too far posterior vertical angulation excessive inadequate horizontal angulation <input checked="" type="checkbox"/> X from the mesial from the distal centering the BID too far anterior too far posterior too far superior too far inferior	sensor placement <input checked="" type="checkbox"/> X too far anterior too far posterior vertical angulation excessive inadequate horizontal angulation <input checked="" type="checkbox"/> X from the mesial from the distal centering the BID too far anterior too far posterior too far superior too far inferior	sensor placement <input checked="" type="checkbox"/> X too far anterior too far posterior vertical angulation excessive inadequate horizontal angulation <input checked="" type="checkbox"/> X from the mesial from the distal centering the BID too far anterior too far posterior too far superior too far inferior	sensor placement <input checked="" type="checkbox"/> X too far anterior too far posterior vertical angulation excessive inadequate horizontal angulation <input checked="" type="checkbox"/> X from the mesial from the distal centering the BID too far anterior too far posterior too far superior too far inferior	sensor placement <input checked="" type="checkbox"/> X too far anterior too far posterior vertical angulation excessive inadequate horizontal angulation <input checked="" type="checkbox"/> X from the mesial from the distal centering the BID too far anterior too far posterior too far superior too far inferior

Dental lab radiographic technique evaluation--PA'S mandibular anteriors

	client's right			client's left		
15	man right canine pa	14	13	12	man left incisor pa	man left canine pa
	sensor placement	sensor placement	sensor placement	sensor placement	sensor placement	sensor placement
	_too far anterior	_too far anterior	_too far anterior	_too far anterior	_too far anterior	_too far anterior
	_too far posterior	_too far posterior	_too far posterior	_too far posterior	_too far posterior	_too far posterior
	vertical angulation	vertical angulation	vertical angulation	vertical angulation	vertical angulation	vertical angulation
	_excessive	_excessive	_excessive	_excessive	_excessive	_excessive
	_inadequate	_inadequate	_inadequate	_inadequate	_inadequate	_inadequate
	horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation
	from the mesial	from the mesial	from the mesial	from the mesial	from the mesial	from the mesial
	from the distal	from the distal	from the distal	from the distal	from the distal	from the distal
	centering the BID	centering the BID	centering the BID	centering the BID	centering the BID	centering the BID
	_too far anterior	_too far anterior	_too far anterior	_too far anterior	_too far anterior	_too far anterior
	_too far posterior	_too far posterior	_too far posterior	_too far posterior	_too far posterior	_too far posterior
	_too far superior	_too far superior	_too far superior	_too far superior	_too far superior	_too far superior
	_too far inferior	_too far inferior	_too far inferior	_too far inferior	_too far inferior	_too far inferior

Dental lab radiographic technique evaluation--BWXX

	client's right		client's left	
	1	2	3	4
				

	right molar bwx	right l2remolar	left l2remolar	left molar bwx
sensor placement	'1 X	'1 X	'1 X	'1 X
___too far anterior		___too far anterior	too far anterior	too far anterior
___too far posterior		___too far posterior	___too far posterior	___too far posterior
horizontal angulation	'1 X	'1 X	'1 X	'1 X
___from the mesial		___from the mesial	from the mesial	___from the mesial
___from the distal		___from the distal	___from the distal	___from the distal
vertical angulation	'1 X	'1 X	'1 X	'1 X
___too positive		___too positive	___too positive	___too positive
___too negative		___too negative	___too negative	___too negative
centering the BID	'1 X	'1 X	'1 X	'1 X
___too far anterior		___too far anterior	___too far anterior	___too far anterior
___too far posterior		___too far posterior	___too far posterior	___too far posterior
___too far superior		___too far superior	___too far superior	___too far superior
___too far inferior		___too far inferior	___too far inferior	___too far inferior

Software processing part three.

Open EagleSoft (the real deal)
Choose you as the client
Open up the clinical exam
Change exam type to images
Complete the exam
Click "save" at bottom of screen

Click on the pencil can on the bottom – you may have to click on the drop down menu and choose the pencil can.

On left side of screen you will see three choices...1. exams by date will be at the top with image templates below. 2. new exams. 3. exams by type.

Click on exams by type

Bottom of the list is "Example Images" -click on this

Click on Caries

There will be a variety of x-ray images that pop up on the screen. The images all have caries. Choose one of the images by placing the curser on the image and left clicking on the image will appear in the larger box at the bottom of the screen.

1. First adjust density by moving sun up and down.
What happens to the image when you move the sun up?

What happens to the image when you move the sun down?

***To change the image back to normal? Click edit, image history, and then undo what you have done. You may do this after each of the activities.**

2. Second change the contrast by moving the Y_i white - Y_i black circle horizontally.
What happens to the image when you move the circle to the right?

What happens to the image when you move the circle to the left?

Caries - filters best for caries detection.

3. Clai-ify
4. Invert – sometime helps
5. Tools –relative density right click on varies areas and a % of density will appear.
You can compare different areas and their density value to see if there is an area of demineralization.
6. Emboss 3-D

Now change your Example type to severe periodontal disease and choose an image. Similar steps as before -for caries.

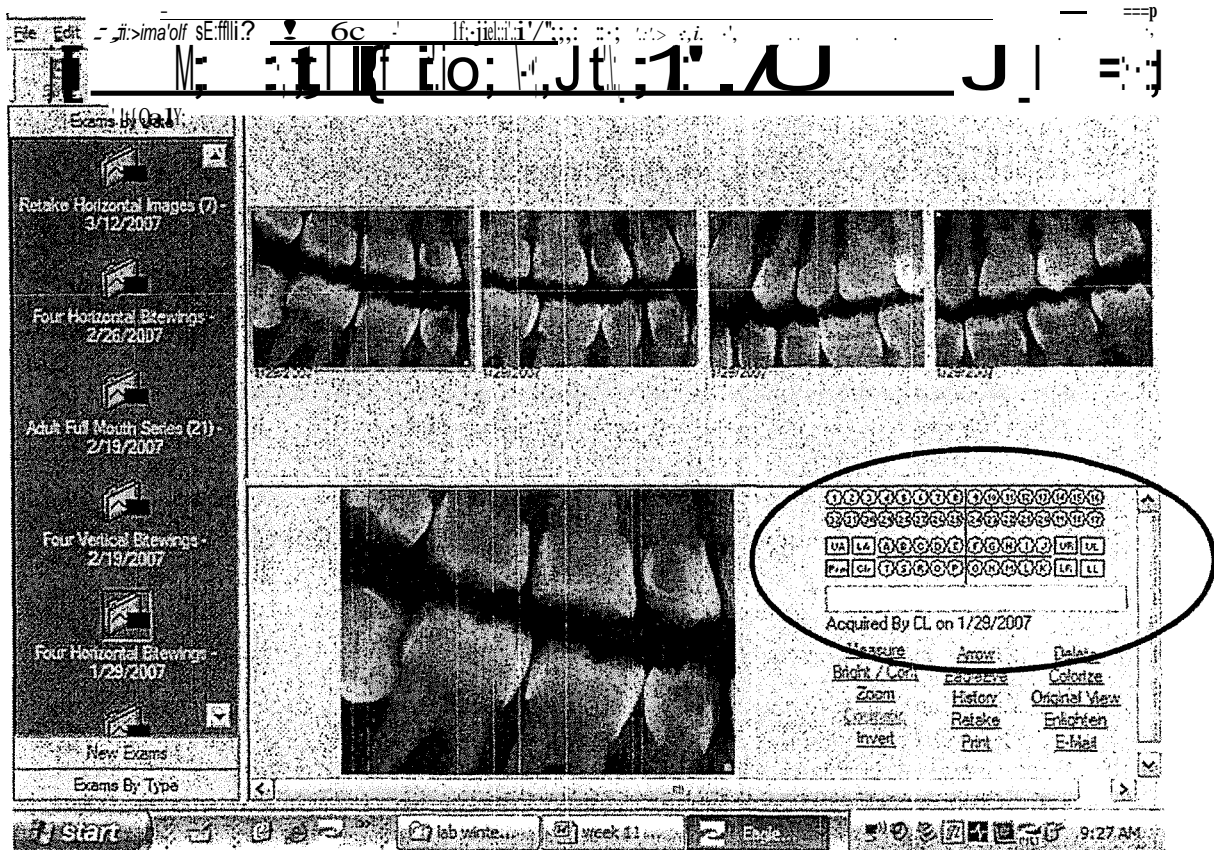
Periapical disease - filters best for periapical diseases.

7. clarify
8. invert

Close out of advanced imaging change. Exit out of EagleSoft. Open EagleSoft and choose Assistant.

- Choose you as the client
- Open up the clinical exam
- Change exam type to images
- Complete the exam
- Click "save" at bottom of screen

Click on the pencil can on the bottom –you may have to click on the drop down menu and choose the pencil can.
Open a Bitewing template that you have already exposed.



Notice the area within the circle? This will tie the image that is next to it to the dental chart; so each tooth that is suppose to be in this image (ie, right molar bitewing has teeth

#1, 2, 3, 30, 31, & 32) will need to be highlighted in yellow. This is done by moving the cursor over the tooth number (the cursor will change to an explorer) and clicking on the number.

Open a FMX template.

Right click on the mandibular right molar pa – copy to clipboard

Open a NEW BWX (horizontal) template.

Right click on first slot and acquire from clip board

Click save.

Add the correct information that will tie this image to the correct tooth in the dental chair.

Place cursor over this new BWX template and right click

Choose rename EXAM

Type accessory image for #32

Press enter

Right click on this template again and click on "updates patient's last bitewing" This is where that information is shown on the chart.

Exam Date: Today Exam Type: Images Status: Incomplete

Summ | P | R | T | I | M | G | E | S | G | E | N | E | R | A | L | O | T | H | E | R | N | O | T | E | S

Patient ID: 42
Patient Name: BirtnDille Age: 21
Home P/O: W0tk
Les/Vitil D: >te

Patient Photo Not Available

Upper Arch Image Not Available

Full Smile Image Not Available

Lower Arch Image Not Available

Mwt ReCAAt

Solt Ti=eE=	1/18/2007
Restotllive EXMt	11/11/2005
TMJ EKam:	11/11/2006
Occi-cr.ion Ek<lm:	11/11/2000
Ek<llm:	3/26/2007
Cosmetic Exam:	11/11/2005
Headt. NeckE	11/11/2005
Habits Exam:	11/11/2006
General Ek<llll:	11/11/2006
Cancer Exam:	None
Dental History Exam:	11/11/2006
Full Mouth Series:	3/26/2007
Bitewing:	3/16/2007
Panoramic:	None

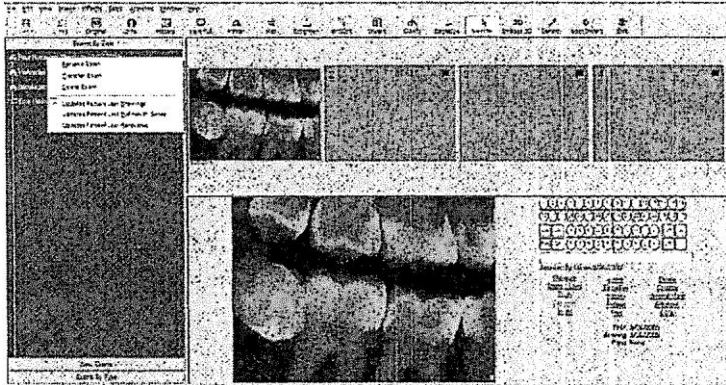
Print Save Cancel

start lab write week 11 9:38 AM

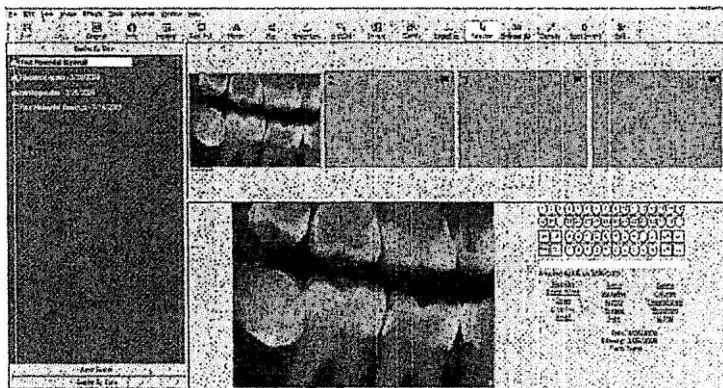
Changing the exam narrrle in EagleSoft

e.g. If the exam name such as four horizontal bitewings needs to be changed to a different name that will reflect what is in the exam such as one BWX.

1. Place cursor over Exam name and right click. This is the menu that will appear.

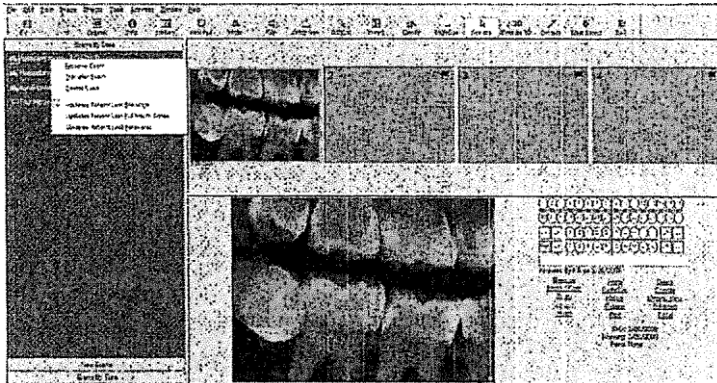


2. Then left click on Rename Exam

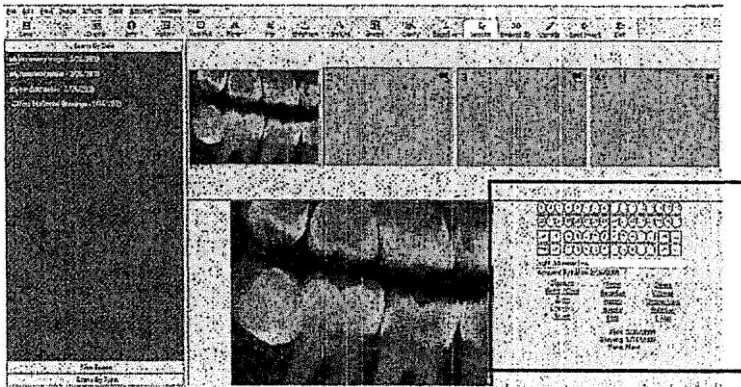


3. The exam name is highlighted type one BWX

4. Right click again on this exam and left click on **Update Patient Last Bitewings.** (So that it is not **1** and will not use the exposure date as the last BWX series)



5. Lastly you need to identify the correct image information within the boxed area; this will attach the image to the dental chart.



"N:tn:;;

Software processing part three

Peer evaluated	Instructor evaluated	Student will correctly ...
		1. demonstrate how to change density first (if needed) than contrast.
		2. identify which filters are best for caries detection.
		3. identify which filters are best for periapical diseases.
		4. move accessory images into the horizontal bitewing template and save.
		5. check image information to make sure each image is correctly attached to a tooth number.
		6. demonstrate how to rename the template once the image has been placed.
		7. demonstrate how to remove "updates patients last bitewing date"

:Oen.ta.I lab radiographic technique evaluation.--P.A'S molars

client's right		client's left	
	17	9	10
max ri ght molar Qa	man right molar 12a	max left molar Qa	man left molar Qa
sensor placement	sensor placement	sensor placement	sensor placement
_too far anterior	_too far anterior	_too far anterior	_too far anterior
_too far posterior	_too far posterior	_too far posterior	_too far posterior
vertical angulation	vertical angulation	vertical angulation	vertical angulation
_excessive	_excessive	_excessive	_excessive
_inadeq uate	_inadeq uate	_i nadeq uate	_i nadeq uate
horizontal angulation	horizontal angulation	horizontal angulation	horizontal angulation
from the mesial	_from the mesial	from the mesial	from the mesial
from the distal	from the distal	from the distal	from the distal
centering the BI D	centeri ng the BID	centering the BID	centeri ng the BID
_too far anterior	too far anterior	_too far anterior	_too far anterior
_too far posterior	_too far posterior	_too far posterior	_too far posterior
_too far superior	_too far superior	_too far superior	_too far superior
_ too far inferior	too far inferior	too far inferior	too far inferior

Dental lab radiographic technique evaluation--PA'S premolars

client's right

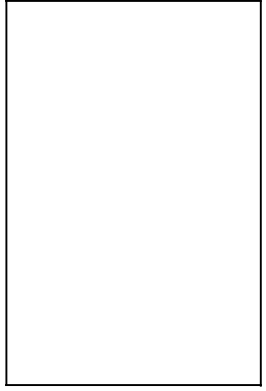
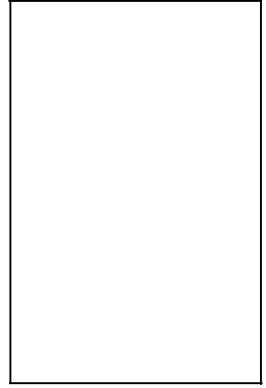
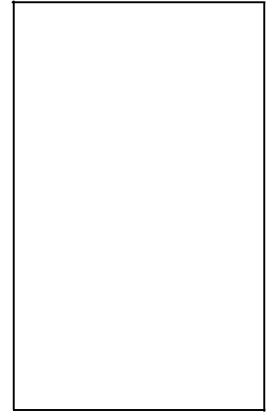
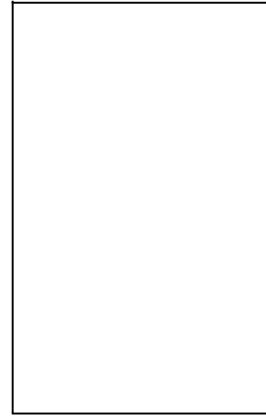
client's left

2

16

8

11



max right gremolar pa	s/	X
sensor placement		X
___too far anterior		
___too far posterior		
vertical angulation	s/	X
excessive		
___inadequate		
horizontal angulation	s/	X
___from the mesial		
from the distal		
centering the BID	s/	X
___too far anterior		
___too far posterior		
___too far superior		
___too far inferior		

man right 12remolar 12a	s/	X
sensor placement		X
too far anterior		
___too far posterior		
vertical angulation	s/	X
excessive		
___inadequate		
horizontal angulation	s/	X
___from the mesial		
___from the distal		
centering the BID	s/	X
___too far anterior		
___too far posterior		
___too far superior		
___too far inferior		

max left gremolar ga	s/	X
sensor placement		X
___too far anterior		
___too far posterior		
vertical angulation	s/	X
excessive		
___inadequate		
horizontal angulation	s/	X
___from the mesial		
___from the distal		
centering the BID	s/	X
___too far anterior		
___too far posterior		
___too far superior		
___too far inferior		

man left gremolar 12a	s/	X
sensor placement		X
too far anterior		
___too far posterior		
vertical angulation	s/	X
excessive		
___inadequate		
horizontal angulation	s/	X
___from the mesial		
___from the distal		
centering the BID	s/	X
___too far anterior		
___too far posterior		
___too far superior		
___too far inferior		

Dental lab radiographic technique evaluation--PA: maxillary anteriors

client's right

3



max right canine 12a

sensor placement Y X

___too far anterior

___too far posterior

vertical angulation V X

___ excessive

___adequate

horizontal angulation Y X

from the mesial

from the distal

centering the BID " X

___too far anterior

___too far posterior

___too far superior

___too far inferior

4



max right lateral incisor pa

sensor placement Y X

___too far anterior

___too far posterior

vertical angulation Y X

___ excessive

___adequate

horizontal angulation Y X

from the mesial

from the distal

centering the BID " X

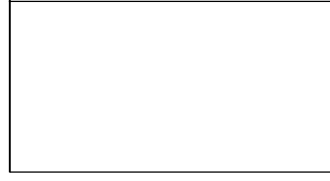
___too far anterior

___too far posterior

___too far superior

___too far inferior

5



max central incisor pa

sensor placement V X

___too far anterior

___too far posterior

vertical angulation Y X

___ excessive

___adequate

horizontal angulation V X

from the mesial

from the distal

centering the BID -/ X

___too far anterior

___too far posterior

___too far superior

___too far inferior

client's left

6



max left lateral incisor ga

sensor placement Y X

___too far anterior

___too far posterior

vertical angulation Y X

___ excessive

___adequate

horizontal angulation Y X

from the mesial

from the distal

centering the BID V X

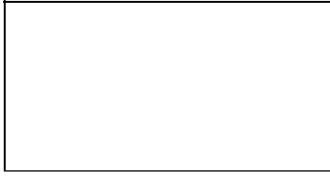
___too far anterior

___too far posterior

___too far superior

___too far inferior

7



max left canine 12a

sensor placement V X

___too far anterior

___too far posterior

vertical angulation Y X

___ excessive

___adequate

horizontal angulation V X

from the mesial

from the distal

centering the BID ,/ X

___too far anterior

___too far posterior

___too far superior

___too far inferior

Course Syllabus

Fall 2016

Instructor Contact Information

Jody Williams

Phone: (641) 683-5120 | (800) 726-2585, ext.5120

Email: Jody.Williams@Indianhills.edu

Office: IHCC - 104 Main Campus (Ottumwa), Rural Health Education Center

Course Description

(Credits: 3) The course will provide necessary instruction and supervised practice in the preparation and delivery of dental hygiene care in the dental operator will be reviewed. Topics and discussions include maintenance of equipment, instrument identification, processing of instruments, basics routines for operator asepsis, patient charting, ergonomics and skill development. Competency is achieved on manikins and peers.

Prerequisites

DEA 321 Dental Radiography II

Required Textbooks

Darby, M. & Walsh, M. (2015) *Dental hygiene theory and practice fourth edition* St. Louis: Elsevier

Website: www.evolve.elsivier.com/DarbyHygiene

Other course materials requirements:

Student will need to purchase these items at the beginning of the course:
Indian Hills Community College Dental Hygiene Uniform

Instrument Kits Must be purchased at the IHCC bookstore to insure uniformity and quality.

Clothing

Necessary attire for Lab Session; Lab coat- either $\frac{3}{4}$ or full length and IHCC scrub top and scrub pant. Personal Protective Equipment including safety visors/ goggles, gloves, masks are required in lab sessions.

Academic dishonesty policy

Academic Dishonesty will be treated seriously. At a minimum it will result in a loss of credit for the assignment. The obvious penalty is a 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting appears that are not the student's original work (plagiarism) also constitutes cheating.

The stringency of this policy is understandable when read in the context of educational program-preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Cell phones are disruptive during lectures and labs. They lend themselves to suspicion during evaluative procedures as well. They must be kept in a purse/ book bag (turned Off) or in your locker during class and lab. If you have a potential emergency, arrangements may be made with the instructor for cell phone monitoring. This is for emergency situations only.

Course Focus

The course focused on the introduction to dental hygiene and the role, responsibilities, and student skill development. Theories, practice models, assessments and intervention are addressed in the dental hygiene setting.

Course Goals/Student learning outcomes

Upon successful completion of this course, the student will be able to:

1. Identify the role of the dental hygienist.
2. Explain the current infection control concepts and the rationale for universal blood and body fluid precautions.

3. Explain and demonstrate how to obtain a thorough personal, dental, and medical history, and obtain accurate vital signs.
4. Demonstrate appropriate operator, assistant, and patient positioning for optimal dental hygiene care.
5. Completed an oral examination/cancer inspection and explains the rationale for teaching the client self- examination procedure.
6. Utilize appropriately the dental explorer, periodontal probe, mouth mirror, and complete accurate assessment recording such as patient classification, occlusal classification, abnormal oral habits, PSR, and periodontal charting.
7. Record accurately the anatomical and geometric dental chartings utilizing the appropriate symbols.
8. Prepare the dental hygiene care plan including patient education taking into consideration the client's wants and needs.
9. Utilize appropriately the dental scaling instruments: sickles, curettes, and ultrasonics.
10. Ability to think critically and to solve problems
11. Establish an ability to work in groups
12. Demonstrate Information, numeric, and computer literacy within clinic software

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

DHY 176
Clinical Procedures
Course Calendar

Week	Topic	Lab	Goal #
1	Review of DHY 176 syllabus Welcome and Introduction to DHY 176 read chapters 1-5 dental hygiene profession, human needs, evidence based decision making, health promotion prior to class, do study questions CHP 1-3 Discussion	Lab exercise and assessment scavenger hunt in clinic (where is___?)	1
2	<u>Week 1 Quiz chapters 1-3</u> Discussion of chapters 4-7 health promotion, changing behaviors, cultural competence, professional portfolios Do Study questions CHP 4-7	Module 2 infection control Lab exercise and assessment	1,2,10,11,12
3	<u>Week 2 Quiz chapters 4-7</u> Do study questions CHP 8-11 discussion Dental hygiene care environment, infection control, medical emergencies, ergonomics	Module 3 ergonomics lab exercise and assessment	2,3,5,10,11,12
4	<u>Week 3 Quiz chapter 8-11</u> Do study questions CHP 12-15 discussion Health History, vital signs, pharmacologic history	Module 4 Medical History Lab exercise and assessment extra oral intra oral assessment	2,3,4,10,11,12
5	<u>Week 4 Quiz chapter 12-14</u> Review for mid term	Module 5 Exploring and probing Lab exercise and assessment	2,3,6,7,10,11,12

6	Mid term examination includes chapters 1-14 Discussion chp 16 dentition assessment	Module 6 Dental charting Lab exercise and assessment	2,6,10,11,12
7	<u>Week 6 quiz chapter 15 & 16</u> Do study questions CHP17 and 18 discussion oral hygiene assessment, dental caries management	Module 7 dental charting in eaglesoft Lab exercise and assessment CAMBRA	3,6,7,10,11,12
8	<u>Week 7 quiz chapter 17-18</u> Do study questions CHP 19 & 20 periodontal risk assessment, potential impact on health	Module 8 Care plan Lab exercise and assessment	5,6,7,8, 10,11,12
9	<u>Week 8 Quiz chapter 19 &20</u> Do study questions CHP 21&22dental hygiene diagnosis and care plan	Module 9 Client self care Lab exercise and assessment	5,8,10,11,12
10	<u>Week 9 Quiz chapter 21 &22</u> Do study questions CHP 27 Ultrasonic Instrumentation	Power scaling Lab exercise and assessment	3,9,10,11,12
11	Week 10 quiz chapter 27 Review for final chapters 1-22,27	Lab final assessment part one	2,3,4,5,6,7,8,9,10,11,12
12	Final Exam	Lab final assessment part two	2,3,4,5,6,7,8,9,10,11,12
12	Final Exam	Points Possible	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Students will be expected to attend lecture and laboratory sessions, read and complete assignments and laboratory activities, commit sufficient time to preparing for the course, and contact instructor regarding absences, missed assignment and educational assistance. The student should expect to spend a minimally 6-8 hours per week of reading and studying time and 4-6 hours per week practicing clinical skills. The student is expected to work in teams to enhance the learning process.

Grading Scale

Students will not be allowed to make-up missed assignments/exams unless the student has contacted the instructor prior to or on the day of absence.

Grading shall be determined by the following breakdown.

Group participation	10%	120 points
Quizzes	30%	200 points
Exams	30%	300 points
Competencies (lab)	30%	150 points
	100%	770 points

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Course Outline

Unit I

Content:

Conceptual Foundations

- a. The Dental hygiene profession
 1. What is dental hygiene
 2. Who is the dental hygienist
 3. What is the dental hygiene process of care
 - a. assessment
 - b. diagnosis
 - c. planning
 - d. implementation
 - e. evaluation
 - f. documentation
 4. Six steps of process

- a. The person level of growth and maturity
- b. Psychomotor
- c. age
- d. gender
- e. role
- f. lifestyle
- g. culture
- h. attitudes
- i. health beliefs and behaviors
- j. Level of knowledge

- b. Human Needs theory and Dental Hygiene Care
 - 1. Maslow's Hierarchy of needs
 - 2. Human needs conceptual model of dental hygiene
 - 3. Dental hygiene's eight human needs

Evidence-based decision making

- c. Health and Health Promotion
- d. Changing behaviors
- e. Cultural Competence
- f. Professional portfolios

Learning experience:

Lecture

Lab assessment

Discussion

Key concepts

Web activities

Learning objectives

Unit II

Content:

Preparation for the appointment

- a. The dental hygiene care environment
- b. Infection control
- c. Medical emergencies
- d. Ergonomics

Learning experience:

Lecture

Lab assessment

Discussion

Key concepts
Web activities
Learning objectives

Unit III

Content:

Assessments

- a. The health history
- b. Vital signs
- c. Pharmacologic history
- d. Extra oral and intraoral clinical assessment
- e. Dentition assessment
- f. Oral hygiene assessment : soft and hard deposits
- g. Dental caries management by risk assessment
- h. Periodontal and risk assessment
- i. Potential Impact of periodontal infections on overall general health

Learning experience:

Lecture

Lab assessments

Discussion

Key concepts

Web activities

Learning objectives

Unit IV

Content:

Critical Thinking in dental hygiene practice

- a. Dental hygiene diagnosis
- b. Dental hygiene care plan, evaluation, and documentation

Unit V

Content:

Implementation

- a. Tooth brushing

- b. Mechanical Oral Biofilm control: Interdental and supplemental self care devices
- c. Dentifrices
- d. Hand activated Instruments
- e. Ultrasonic instrumentation

DHY 176 – Information Sheet for Final Clinical Examination

Part I (Wednesday’ lab)

(30 minutes maximum)

Care Plan as practiced for Module #8:

Assessment data will be given to you to review on an assigned client

You will fill out the Care Plan

You will choose a treatment plan that best suits this client

o Client cases (periodontium diagnosis) will be limited to

Health

Gingivitis

+++++

+++++

30 minutes maximum)

Charting procedures on the computer as you did on Module #7 & 9 assessments:

Dental charting (including color printing)

Periodontal charting (including color printing of the “perio graph” quadrant view)

Plaque Index (bring in a red pencil)

+++++

+++++

Part II – (Monday’s lab)

(20 minutes maximum)

Instrument demonstration on a typodont (each instrument on no more than two teeth that

the instructor will identify)

Slim Right Probe-like

Slim Right Curette-like

Slim Left Probe-like

Slim Left Curette-like

Slim Universal

+++++

+++++

(40 minutes maximum)

Calculus identification – you will explore a designated quadrant and identify which 5 teeth that have calculus on them. There will be ten areas of calculus on 5 teeth in one quadrant.

For example: Tooth # ____;surface __distal __facial __mesial __lingual

Calculus removal- you will be assigned 5 teeth with the calculus identified and your role is to remove the calculus with the appropriate instrument (s).

For example: Tooth # 18 distal

The calculus identification and removal teeth will be assigned on two different quadrants.

DHY 176 Final Lab Exam Name _____

Date _____ Instructor Points Earned _____

Dental Charting

Create a new client by placing your first name and last name initial as the first name and exam as the last name (for example first name Jody W and last name Exam)

Complete the dental charting for the teeth listed below.

Save your charting. Print the chart using the Color Printer.

Tooth # Condition/Service

- 1 Missing
- 2 Sealant
- 3 Mesial pit amalgam
- 4 Distal pit caries
- 5 Extracted
- 6 Attrition
- 7 Distal rotated lingually
- 8 Mesial composite
- 9 Sound
- 10 Facial Veneer
- 11 Hypoplasia on the facial – middle third
- 12 Gold crown with a porcelain coverage
- 13 Abutment
- 14 Pontic
- 15 Abutment
- 16 Partially erupted (mesial cusps)

DHY 176 Final Lab Exam Name _____

Date _____ Instructor Points Earned _____

Periodontal Charting

Still using the client's file that you created for dental charting, enter the data below for the periodontal charting.

This data is from the lingual aspect of the teeth only. If the number below is in brackets e.g. (3), there is bleeding present so chart the bleeding also.

Save your charting. Print out the chart that has the data that you entered by clicking on print preview and follow the directions using the color printer.

Then, click on the "perio graph" tab in the upper left. Move the cursor arrow onto the chart and note it changes to a magnifying glass. Place the magnifying glass over the quadrant with your charting and click. Notice how this enlarges that quadrant. Print the quadrant using the color printer.

The GM for the patient below is at normal height (2mm above the CEJ on the proximals & 1 mm above the CEJ on the linguals EXCEPT when the GM has recession or is enlarged as indicated. In the highlighted section labeled CAL, indicate whether the CAL is in the accurate location on your chart. Use (Y) for yes or (N) for no.

Tooth GM

DL

GM

L

GM

ML

PD

DL

PD

L

PD

ML

MOB FG CAL

DL L ML

32 -2 4 2 3

31 3 2 1 2 (3) 5 1 2

30 4 3 2

29 2 2 (4)

28 1 2 1 2

Plaque Index

Tooth Number Surface (s)

4 DB, B-cervical third, MB

5 ML

6 Lingual – middle third

7 DL, Ling – cervical and middle third, ML

8 MF
9 MF

DHY 176 - Final Lab Exam Name _____

Date _____ Instructor _____ Points Earned _____

30 minutes will be allotted for the DHY Care Plan and Treatment Plan
Care Plan

Assigned Client's Name

Review the client's data and complete the Worksheet and DHY Care Plan

Note: Your client is willing to comply with all of your recommendations

Select the treatment plan that covers the procedures that have been done and any that
need to be completed.

Treatment Plan Selection:

___ A ___ B ___ C ___ D

OPTIONAL:

Comments: The following items did not make sense to me, confused me, or I
would have changed the Treatment Plan as follows:

DHY 176 Final Lab Exam Name _____

Date _____ Instructor _____

Note: 50 points possible 20 minutes maximum Points Earned _____

You will be asked to demonstrate each of the five different techniques when using the slim power scaling tips on no more than two teeth each. Do not carry on a conversation about how or where to use the instruments because time is so limited. After the instructor identifies the two areas, just proceed with the designated instrument to the assigned teeth and apply the instrument as if you were scaling for calculus removal.

Instructors – Each box is worth 1 point if there are no errors; -1/4 for a very minor error e.g. wrong angulation temporarily;

-1/2 – more than one minor/ or a critical error made then corrected – e.g. wrong end-student recognized error and corrected it;

-1 – more than one critical error – student was not proficient/safe with this instrument

Instrument

Teeth Assigned

Aspect: e.g.

Bucc/Ling

M/D

End Choice

Angulation

Adaptation

Stroke

Length/direction

Operator/Client/

Light Position

Comments

Slim Right

Probe like

Slim Right

Curette like

Slim Left

Probe like

Slim Left

Curette like

Slim

Universal

Additional Comments:

DHY 176 - FINAL Written EXAMINATION NAME _____

J. Williams DATE _____

100 points possible

Each multiple choice = 2 points

Module #1 - Role & Functions of the RDH

1. The process by which a government agency certifies that individuals have met predetermined standards and are minimally qualified and are permitted to practice its jurisdiction defines

- a. accreditation
- b. certification
- c. licensure
- d. the practice act

2. The purpose of dental hygiene is to promote and maintain oral wellness.

- a. True
- b. False

3. In order to practice dental hygiene, you must graduate from an accredited dental hygiene school, successfully complete a National Examination, and a State or Regional Examination, become licensed and registered in the state or states you want to practice.

- a. True
- b. False

Module #2 - Universal Precautions

4. Many communicable diseases are transmitted via the oral cavity because the agents are transmitted

- a. in saliva
- b. by aerosols
- c. in blood
- d. by direct contact
- e. all of the above

5. Guidelines for PPE are recommended and/or mandated by the

- a. CDC
- b. governor of each state
- c. Federal Trade Commission
- d. OSHA
- e. a and d

6. Universal precautions should be used for every client because

- a. every client should be considered infective
- b. infective clients enter the operatory daily

- c. many individuals with HBV infections are unaware of the infection
- d. the CDC mandates it

7. A pathogenic bacteria is one which
- a. cannot be killed
 - b. must be autoclaved to kill it
 - c. has the potential to produce disease
 - d. must be transmitted via the bloodstream
 - e. all of the above

Module #3 - Infection Control

8. One of the following is not a sterilizing procedure. Which one?
- a. autoclaving at 260 degrees F for 20-30 min., at 15-29 lbs of pressure
 - b. dry heat at 325 degrees F for one hour
 - c. ethylene oxide at 110 degrees F for 10-16 hours
 - d. glutaraldehyde solution for 20 minutes

9. Disinfectants and sterilants are tested for effectiveness by checking for the destruction of which microorganism
- a. herpes simplex virus
 - b. treponema pallidum
 - c. mycobacterium tuberculosis
 - d. streptococcus mutans

10. The ultrasonic is the best method of disinfecting the instruments prior to sterilization.
- a. True
 - b. False

11. Unless the instrument recirculation processing is begun immediately, the contaminated instruments should be put into a holding solution container for presoaking to prevent drying of bioburden on instruments and begin the microbial kill.
- a. True
 - b. False

12. Liquid chemical immersion sterilizing procedures are not recommended for items that can be sterilized by heat because
- a. they have toxic effects to mucosa and skin if not rinsed after sterilization
 - b. they take 6-10 hours for sterilization
 - c. maintenance of strict asepsis is not possible due to unwrapped instruments
 - d. all of the above

e. (a) and (b)

13. An example of monitoring a sterilizer is
- checking the temperature and pressure gauges
 - servicing the equipment every six months
 - incubating a spore ampule after its been sterilized
 - checking the heat sensitive tape color

Module #4 - Positioning

14. One of the following items does not describe a properly seated clinician. Which one?

- feet flat on the floor
- back straight, but may lean from the waist
- clinician's waist is level with client's mouth
- thighs are parallel with the walls
- shoulders are parallel with the floor

15. The best working distance between the operator's face and the client's face is

- 4-6 inches
- 14-16 inches
- 24-26 inches
- 6-8 inches

16. When your client is in the supine position for dental hygiene procedures, his/her

- head is higher than the feet
 - feet are higher than the head
 - head and feet are level
 - back is upright
 - body is lying down
- 1 and 4
 - 2 and 5
 - 3 and 4
 - 3 and 5
 - 5 only

Module #5 - Medical/Dental Histories

17. When premedicating an adult with amoxicillin, the dosage and time should be

- 2 Gm 1 hour before the appointment
- 3 Gm 1 hour before the appointment and 1.5 Gm 6 hours after initial dose
- 3 ml 1 hour before the appointment and 1 ml 6 hours later
- 2 Gm 30-60 minutes prior to the appointment and 250 mg every 4 hours for 2 days following the appointment

18. Your client has a history of diabetes which he is controlling with medication and diet

and he diligently monitors his blood glucose level. He shows no symptoms of physical limitations or dental disease at this time. What ASA category would he be classified into?

- a. ASA I
- b. ASA II
- c. ASA III
- d. ASA IV
- e. ASA V

19. The blood pressure reading that is the lowest recorded sound when the heart is at rest

is the

- a. systolic
- b. diastolic
- c. arterial

5

20. A client who needs premedication prior to dental hygiene care but is allergic to Amoxicillin would be given

- a. Clindamycin
- b. Motrin
- c. antihistamines
- d. Sulfa

21. An advantage of obtaining a health history by interviewing is that it may be more accurate and you may ask follow-up questions thereby obtaining more information regarding mental evaluation questions that you are asking yourself about the client.

- a. True
- b. False

Module #7 - Explorer/Probe

22. The air syringe is used as an adjunct in exploring to detect

- a. subgingival calculus
- b. supragingival calculus
- c. stain
- d. all of the above

23. The exploratory stroke is the gentle, "feeling" stroke which

- a. has light pressure
- b. is directed by the mind's eye when debriding or detoxifying subgingivally
- c. enters under the sulcus toward the junctional epithelium
- d. all of the above
- e. (a) and (c)

24. If the junctional epithelium has migrated and the periodontal probe measures 5 mm,
the type of pocket is a

- a. pseudo pocket
- b. false pocket
- c. perio pocket
- d. normal pocket

6

25. If the clinician fails to roll the tip of the explorer while going around the line angle of
the tooth into the proximal surface, the likely outcome (s) would be

- a. tissue trauma
- b. failure to follow the tooth topography
- c. discomfort for the client
- d. inability to locate proximal calculus
- e. all of the above

25. when probing, the working stroke has

- a. light lateral pressure
- b. moderate pressure
- c. heavy pressure

27. When adapting the explorer for calculus detection, the clinician should always keep
this part of the instrument on the tooth.

- a. The lower shank
- b. The tip
- c. The upper shank
- d. The side of the tip

Module #7 - Oral Examination

28. The form of healthy gingival tissue should be

- a. pointed papillae, knife-edged margins
- b. pointed marginal tissue
- c. firm
- d. coral pink or pigmented
- e. stippling present

29. Metastasis is the

- a. spread of disease from one part of the body to another
- b. bacteria transferred from one part of the body to another
- c. first symptoms of oral cancer
- d. all of the above

30. A _____ would be recommended for confirmation of a cancerous condition

- a. cytological smear
- b. biopsy

31. A herpes lesion after it ruptures is an example of a (an)

- a. macule
- b. wheal
- c. pustule
- d. ulcer
- e. papule

32. Linea alba, nicotine stomatitis, and leukoplakia, are all examples of

- a. cancers
- b. keratosis
- c. papules
- d. tumors
- e. macules

33. The term "coalescing" describes multiple lesions that are discrete and do not run together.

- a. True
- b. False

Module # 8 - Dental Charting

34. A class II malocclusion is when the maxillary first molar, MB cusp is

- a. mesial to the mandibular first molar, buccal groove by at least the width of a premolar
- b. distal to the mandibular first molar, buccal groove by at least the width of a premolar
- c. even with the mandibular first molar, buccal groove or less than a premolar width from it
- d. in crossbite with the mandibular first molar

35. The PSR recordings below indicate a need for charting which sextant (s) on the Periodontal charting form?

2 2 3
4 1 1

- a. maxillary right posterior teeth
- b. maxillary left posterior teeth
- c. mandibular left posterior teeth

- d. mandibular anterior teeth
- e. all sextants need to be charted

36. A client with subgingival calculus on over 1/2 of the teeth would be coded as:

- a. slight to none
- b. moderate
- c. heavy

37. A Class V dental caries is located

- a. on the proximal surface of the crown - middle third
- b. in an occlusal pit on the crown
- c. in the buccal or lingual pit on the crown
- d. on the cervical region of the crown
- e. none of the above

38. Backwards caries is the lateral spread of decay at the dentinoenamel junction which is

an undermining process that begins

- a. on the cusp tips
- b. as a decalcification/remineralization process
- c. at the margins of existing restorations
- d. with a small opening at the surface of the enamel

39. Sextant 1 is the upper Maxillary anteriors

- a. True
- b. False

Module 9 - Treatment Planning/Pt Education

40. Your client refuses to have a fluoride treatment that was recommended for her. This is an example of:

- a. informed consent
- b. informed refusal
- c. technical assault

41. The most effective method of toothbrushing is the

- a. Bass technique
- b. Scrub technique
- c. Charter's technique
- d. Modified Stillman's technique
- e. any of the above. Brushing should be personalized

42. Your client has 2's and 3's on all the sextants and the plaque is on most every proximal but only a two areas on direct facial or lingual. What do you need to teach this client regarding plaque control?

- a. Flossing techniques
- b. Brushing techniques
- c. Nothing. Praise him and ask what is being done so you can learn from him.
- d. The consequences of oral diseases
- e. (a)and (d)

43. Your client has a three-unit bridge. What oral physiotherapeutic aid (s) could be recommended for plaque removal under the bridge?

- a. A floss threader
- b. Nylon-tipped floss
- c. a thin proxabrush if the tissue allows
- d. all of the above

Module #10 – Debridement & Detoxification

44. This _____ power scaler creates only frictional heat and the water going over the tip is primarily for lavage.

- a. piezoelectric
- b. magnetostrictive
- c. sonic
- d. all of the above
- e. (a) and (c)

45. The piezoelectric power scaler creates vibration at the tip by changing the crystal dimensions in the transducer.

- a. True
- b. False

46. The mode of action that has the potential to destroy or disrupt bacteria is referred to as the:

- a. mechanical action
- b. cavitation
- c. acoustic microstreaming

47. My vibrations are 6,000 cycles per second, I am a(an) _____ power scaler;
my vibrations are 25,000-30,000 cycles per second, I am a (an) _____ power scaler;
my vibrations are 40,000-50,000 cycles per second, I am a (an) _____

_____ power scaler.

- a. sonic, ultrasonic, piezoelectric
- b. ultrasonic, piezoelectric, sonic
- c. sonic, piezoelectric, ultrasonic
- d. piezoelectric, sonic, ultrasonic

48. If your client is uncomfortable during your power scaling, you should _____ the

water level or _____ the frequency level, or both.

- a. decrease ; decrease
- b. decrease; increase
- c. increase; decrease
- d. increase; increase

49. The most powerful portion of the activated slim tip is

- a. nearest the end of the tip
- b. in the middle of the tip
- c. nearest the upper curve of the tip

50. If you are unfamiliar with concavities and not following the tooth topography, your technique may result in

- a. incomplete calculus removal
- b. undue tissue trauma from the tip on the tissue
- c. clinician hand fatigue
- d. all of the above
- d. (a) and (b)

DHY 176

LABORATORY PROCEDURES

The following pages include your laboratory evaluation assessments for DHY 176. Each form correlates to the appropriate study objectives and exercises for that module. Before coming into a lab session prepare yourself by having read the class activity schedule, objectives, exercises, and lab assessment form for the module. Bring this lab manual into every lab session so your peers and instructors may evaluate you as you proceed through the modules.

For most modules, you will notice two different colored lab evaluation forms: one is to be assessed by a peer prior to being assessed by an instructor.

Since it is necessary to utilize the newly learned skills of each module as we go along and one module leads to the next, you must complete the modules in sequence. If you need extra time on a particular module that is fine, but do not go intraorally on the next module without my recommendation. The instructors in this course will be happy to meet with you individually for particular needs. Please ask us.

The symbol "A" on your evaluation forms indicates your performance was acceptable. If you achieve an "I" then your performance is improvable and the assessing instructor will use the comment section and verbal recommendations to help you improve your skills.

If an "R" is given, your performance needs remediation with individualized instruction to facilitate your improvement. During a lab session or a special session, the procedure will be reassessed, provided you have practiced.

The time allotted for this course allows for teaching the necessary clinical skills, but to become proficient at them and retain the proficiency, you must practice between class sessions. You have a typodont and stand for this purpose. DO NOT practice on friends or relatives. Stuffed animals are ok!

Be on time for laboratory sessions and I recommend when going intraorally on each other, coming early to wash your hands and disinfect your unit so you may begin the clinical procedures on time. It takes 15 minutes out of lab time otherwise and all those 15 minutes add up.

WHENEVER THE LAB SESSION IS IN THE CLINIC, YOU MUST HAVE YOUR HAIR TIED BACK, GLASSES ON, SCRUBS ON, LAB COAT OR IMPERMEABLE GOWN ON, GLOVES ON, FINGERNAILS TRIMMED AND CLEAN, AND MASK OR FACE SHIELD ON.

Remember to bring your Manual with you for each lab session. I would recommend leaving it in your locker so it is always available.

THE KEY TO THIS COURSE IS TO:

**Plan your Work;
And Work Your Plan**

DHY 176 – INFECTION CONTROL

Module #2

STUDENT

INSTRUCTOR

DATE

The student will be able to:

- Wash thoroughly demonstrating the:

15 second hand washing procedure followed by
____ spray antimicrobial hand cleansing procedure

Locate and don the appropriate PPE including:
overgown. faceshield.

mask. examination gloves.

eyewear. heavy duty gloves.

- Locate and describe how to mix the disinfecting solution. _____

- Utilize gauze and the cleaner/disinfectant to clean debris from the:
cabinet handles/counter ____ pens and pencils

operator & assistant stools ____ hand mirror

patient's chair ____ file cover

bracket tray ____ disposal ring

dental unit ____ other

light handles

patient and operator safety glasses

air/water syringe and cord

low speed motors and cords

low and high volume suction devices and cords

Disinfect all of the items listed above by:

re-applying disinfectant to all the items listed above

stating the length of time the disinfectant must remain

- CLEAN THE OUTER PLASTIC LIGHT LENS USING WATER AND GAUZE ONLY. (This is done when visibly dirty, not each appointment) ____

NOTE: if the inside lens is soiled, contact the receptionist for cleaning.

- Obtain the tray set-up and check for the:

headrest cover/tray cover

saliva ejector tip

____ Impermeable covers for saliva ejector, intra-oral camera, sealant light,
tri-syringe, and pens gauze squares

____ patient eye cover, patient napkin

DHY 176 – INFECTION CONTROL

Module #2

- Locate the impermeable covers to be used on:
headrest and tray covers.

high &/or low volume suctions, air/water syringe, handpieces.

pen &/or pencils.

patient file cover.

intra-oral camera.

keyboard/mouse

- Place the impermeable covers on the:
headrest and tray covers.

high &/or low volume suctions, air/water syringe, handpieces.

pen &/or pencils.

patient file cover.

intra-oral camera.

____ keyboard/mouse

- Demonstrate the proper procedure for opening and placing sterilized instruments to avoid undue contamination of the instruments and tray set up.

- Prepare the instruments for sterilization by:
checking for dried blood (describe removal procedure if found)
placing them in the instrument cassette
cleaning them in the ultrasonic
rinsing thoroughly

- Package and label instruments for sterilization using the:
wrap and indicator tape
self-closing paper view bags

- Differentiate between the line flushing procedure:
between patients
end of day

- Demonstrate the suction line flushing for end of day _____

- Properly remove the above PPE.

A = ACCEPTABLE I = IMPROVABLE R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

DHY 176 – Ergonomics

Module #3

STUDENT

INSTRUCTOR ASSESSOR

DATE

The student will be able to:

- Adjust the operator’s stool before seating the patient. _____
- Seat the patient with a clear pathway, chair down. _____
- Adjust the patient’s chair to the proper angle for:
preliminary procedures intra-oral procedures
- Adjust the patient’s chair for supine positioning. _____
- Raise or lower the patient’s chair so that the patient’s mouth is level with the operator’s waist. _____
- Demonstrate the proper stool height and positioning for chairside assisting.

- Identify one area of direct vision, one of indirect, and one of transillumination.

- Program the chair for a supine position/light on. _____
- Program the chair for an upright dismissal position/light off. _____

Demonstrate the dental light placement for the client’s:

_____ Mandibular arch _____ Maxillary arch

Demonstrate correct operator positions for:

Right-handed clinicians ___7:30 ___9:00 ___11:00

Left-handed clinicians ___4:30 ___3:00 ___1:00

A = ACCEPTABLE I = IMPROVABLE R = REDO

IF ANY R’S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor’s comments:

DHY 176 – Ergonomics

Module #3

For the following areas in the client's oral cavity, the clinician will demonstrate:
(Right-handed clinician only)

Mandible Teeth # 32-28 Buccal

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

Teeth # 17-21 Lingual

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

Teeth # 32-22 Lingual

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

Teeth # 17-27 Facial

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

(Left-handed clinician only)

Mandible Teeth # 17-21 Buccal

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

Teeth # 32-28 Lingual

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

Teeth # 17-27 Lingual

- _____ correct position
- _____ mirror placement
- _____ fulcrum
- _____ hand placement

Teeth # 32-22 Facial

- _____ correct position
- _____ mirror placement

_____ fulcrum
_____ hand placement
(Right-handed clinician only)

Maxilla Teeth # 1-5 Buccal

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 16-12 Lingual

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 11-6 Lingual

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 1-5 Lingual

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 16-6 Facial

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

(Left-handed clinician only)

Maxilla Teeth # 16-12 Buccal

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 1-5 Lingual

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 6-11 Lingual

_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 16-12 Lingual
_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Teeth # 1-11 Facial
_____ correct position
_____ mirror placement
_____ fulcrum
_____ hand placement

Assessor's comments:

DHY 176 – Medical History

Module #4

STUDENT

PEER INSTRUCTOR

DATE

The student will be able to:

- Record accurately and legibly in ink the client's personal information on the appropriate page. _____

- Have the client sign and date in ink the release form for referral letter

radiographs

photos

- Obtain the written medical and dental history information in ink and have it signed and dated. Review it with the client verbally _____

Ask appropriate follow-up questions and note the answers. _____

- Record as a note "Yes" answers that denote an abnormality or precautions that may alter dental services. _____

- Complete the "Supplemental Drug History" form. _____

- Enter the medical history into the computer software program. _____

- Record the appropriate abnormalities or conditions needing immediate attention in the alert section. _____

- Record two blood pressure readings. _____

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

**DHY 176 - EXPLORING AND PROBING
LABORATORY ASSESSMENT FORM**

MODULE #5

STUDENT

INSTRUCTOR _____

DATE

The student will be able to:

- Identify the presence of the following on a tooth surface:

calculus

irregularities

smooth surface

restoration margins

caries

- Demonstrate competency of the following instruments on the typodont:

Instrument Pen Grasp Wristrock Rotation Strokes Angulation Pressure Order

3 CH

Explorer

1 2 3 4 5 6 7

11/12

Explorer

1 2 3 4 5 6 7

Probe

1 2 3 4 5 6 7

Comments:

DHY 176 - EXPLORING AND PROBING

LABORATORY ASSESSMENT FORM

MODULE #5

• Demonstrate competency of the following instruments intra-orally:
Instrument Pen Grasp Wristrock Rotation Strokes Angulation Pressure Order
3 CH

Explorer

1 2 3 4 5 6 7

11/12

Explorer

1 2 3 4 5 6 7

Probe

1 2 3 4 5 6 7

Comments:

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

DHY 176 – Dental Charting
Lab Assessment Form

Module #6

STUDENT

INSTRUCTOR

DATE

The student will be able to:

- Identify and record the existing oral conditions using the appropriate symbols or numbers on the dental chart form:

Adult Dental Chart – Computer software program(on classmate)

Charting completed in the “existing” mode

Restorations on charting resemble actual restorations

_____ Correct symbols used for the services provided

List services that need remediation:

_____ Correct symbols used for the conditions provided

List conditions that need remediation:

_____ Detailed vs summary was used appropriately

_____ Notes were made (or not) appropriately

accurate caries detection

Chart was read:

accurately

concisely and organized

fluently

DHY 176 – Dental Charting

Lab Assessment Form

Module #6

PSR Chart (classmate)

_____ Accurately charted as 0,1,2,3, or 4

_____ Accurate use of * including notation for condition

Perio Chart (classmate – 1 posterior sextant and 1 anterior sextant))

_____ Accurate GM measurements recorded (recession or enlarged tissues)

_____ Accurate PD measurements (within 1 mm) recorded

_____ Accurate recording for BOP

_____ Accurate recording for MOB

_____ Accurate recording for FG

Occlusal Classification (classmate)

_____ Accurate identification of occlusion

Child Dental Chart (simulation)

_____ Appropriately charted as compared to master

Mixed Dentition Dental Chart (simulation)

Appropriately charted as compared to master

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

DHY 176 – Dental Charting
Lab Assessment Form

Module #7

STUDENT

INSTRUCTOR

DATE

The student will be able to:

- Identify and record the existing oral conditions using the appropriate symbols or numbers on the dental chart form:

Adult Dental Chart – Computer software program(on classmate)

Charting completed in the “existing” mode

Restorations on charting resemble actual restorations

_____ Correct symbols used for the services provided

List services that need remediation:

_____ Correct symbols used for the conditions provided

List conditions that need remediation:

_____ Detailed vs summary was used appropriately

_____ Notes were made (or not) appropriately

accurate caries detection

Chart was read:

accurately

concisely and organized

fluently

DHY 176 – Dental Charting

Lab Assessment Form

Module #7

Child Dental Chart (simulation)

_____ Appropriately charted as compared to master

Mixed Dentition Dental Chart (simulation)

Appropriately charted as compared to master

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

**DHY 176 – Care Plan
Laboratory Assessment Form**

Module #8

STUDENT

INSTRUCTOR

DATE

The student will be able to:

Write the Dental Hygiene Care Plan on an assigned classmate appropriately by:

Determining the

periodontal diagnosis dentition diagnosis

N/A(mod9) oral hygiene diagnosis oral habits/occlusion diagnosis

soft tissue diagnosis

Identifying

needed goal(s) (OHI next module)

intervention necessary to achieve the goals (OHI skills next module)

procedures the client is unwilling to perform

an appropriate reinforcer and schedule

Determining

how both the student and client will know when the goal is achieved

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

**DHY 176 – Client Self Care
Laboratory Assessment Form**

Module #9

STUDENT _____

INSTRUCTOR _____

DATE _____

The student will be able to:

Disclose a fellow student by:

____ using a cotton tipped swab/soufflé cup/disclosing solution

____ keeping the disclosing within the oral cavity

- Correctly assess another student's brushing technique and recommend modifications for improvements where needed.
- Correctly demonstrate the following toothbrushing methods to another student:

Scrub Modified Stillman's Bass

- Correctly demonstrate flossing techniques as follows:

Interproximally with fingers interproximally with an aide
under bridges

- Skim the pamphlets available for reinforcing patient education. List them on the back of this sheet.

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

**DHY 176 – Power Scaling
Laboratory Assessment Form**

STUDENT

INSTRUCTOR____ _

DATE

Typodont:

Slow Side of Angulation Follows

Pen Constant Controlled toe up of lower tooth

Grasp Fulcrum Motion Stroke on tooth Shank topography Order Comments

Slim Right 1 2 3 4 5 6 7 8

Piezoelectric

Probe like

Slim Left 1 2 3 4 5 6 7 8

Piezoelectric

Probe like

Slim Straight 1 2 3 4 5 6 7 8

Universal

Shallow sulci

Slim Right 1 2 3 4 5 6 7 8

Piezoelectric

Curette like

Slim Left 1 2 3 4 5 6 7 8

Piezoelectric

Curette like

Other Comments:

Locate calculus on a simulator in the following areas:

anterior

premolars

molars

Remove simulated calculus in the following areas:

anterior

premolars

molars

**DHY 176 – Power Scaling
Laboratory Assessment Form**

Intraoral:

Slow Side of Angulation Follows

Pen Constant Controlled toe up of lower tooth

Grasp Fulcrum Motion Stroke on tooth Shank topography

Order Comments

Slim Right 1 2 3 4 5 6 7 8

Piezoelectric

Probe like

Slim Left 1 2 3 4 5 6 7 8

Piezoelectric

Probe like

Slim Straight 1 2 3 4 5 6 7 8

Universal

Shallow sulci

Slim Right 1 2 3 4 5 6 7 8

Piezoelectric

Curette like

Slim Left 1 2 3 4 5 6 7 8

Piezoelectric

Curette like

Other comments:

Locate calculus on an assigned classmate or client in the following areas:

anterior

premolars

molars

Remove calculus on an assigned classmate or client in the following areas:

anterior

premolars

molars

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

DHY 235 Nutrition for Dental Hygiene

Course Syllabus

Fall 2016

Instructor Contact Information

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Office: IHCC - Main Campus (Ottumwa), Rural Health Education Center

Course Description

(Credits: 2) This course provides a comprehensive overview of nutritional biochemistry. Emphasis will be placed on the effects of nutrition on oral health and the application of counseling strategies to assist the patient in attaining and maintaining optimum oral health.

Prerequisites

Required: DEA 256 Dental Anatomy

Required Textbooks

Davis, J. & Stegeman, C. (2015). *The dental hygienist's guide to nutritional care* 4th ed. St Louis: Elsevier

Focus

The course focus is on the advanced understanding of nutrition. Nutritional evaluation, diet therapy, and disease signs that may accompany inadequate nutritional patterns are emphasized.

Course Goals/Student Learning Outcomes

Upon successful completion of this course, the student will be able to:

1. Understand influences on food habit development, current nutritional concerns and food labels.
2. Differentiate Recommended Dietary Allowances and Recommended Daily Intakes (RDI) and dietary guidelines.
3. Describe methods for selecting a balanced diet, e.g., the USDA's food guide pyramid.
4. Describe the dietary sources, functions, digestion, absorption, metabolism and chemical makeup of carbohydrates.
5. Discuss development of dental caries from carbohydrate consumption, diseases associated with carbohydrates.
6. Discuss the effects of carbohydrate consumption on the development of dental caries.
7. Describe dietary sources, requirements, digestion, absorption, and metabolism of the chemical makeup of lipids comparing and contrasting saturated and unsaturated fatty acids.
8. Describe the digestion, absorption, metabolism of proteins, chemical makeup, dietary sources, requirements, and diseases associated with protein nutrition.
9. Define basal metabolism and identify factors that affect it.
10. Describe a sound and complete weight loss program.
11. Describe factors which contribute to the development of eating disorders.
13. Describe the functions, dietary sources, deficiencies and toxicity from vitamin C and the B complex vitamins.
14. Describe the oral manifestations of deficiency states of fat-soluble and water-soluble vitamins.
15. Describe and classify the functions of major and trace essential minerals in the body.
16. Describe dietary sources, requirements, disorders of osteoporosis and hypertension from deficiency and toxicity states of the minerals.
17. Describe the functions of water in the body.
18. Discuss strategies for counseling for behavior change, behavior change process.
19. Discuss the need for a complete medical and social history, assessment of the patient's physical appearance, and a complete baseline diet.
20. Describe and demonstrate the procedure for nutritional counseling including establishing the baseline, intervention, generalizing and case summary.
21. Describe special nutritional needs for the stages of life.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

DHY 235
Nutrition for Dental Hygiene
Course Calendar

Week	Topic	Lecture	Goal #
1	Review of DHY 235 course syllabus Introduction to DHY 235 Start Chapter 1	Complete chapter 1 student learning readiness question 1-9 prior to class discussion complete a 5 day diet diary on self. Turn in next week	1, 2,3
1	Continue Chapter 1 Over view of Healthy Eating Habits, and Chapter 2 Concepts in Biochemistry	Complete chapter 2 student learning readiness questions 1-13 prior to class discussion	4
2	Chapter 3 – the Alimentary Canal: Digestion and Absorption	Complete Chapter 3 student learning readiness questions 1-11 prior to discussing case study Quiz Chapters 1 &2	4,5,6,7
2	Chapter 4 –Carbohydrate: The Efficient Fuel	Complete chapter 4 student readiness questions 1-11 prior to class discussion	5
3	Chapter 5 Protein: The Cellular Foundation	(quiz Chp 3&4)complete Chp 5 learning readiness question 1-11 prior to class discussion	8
3	Chapter 6 Lipids: the condensed energy	complete Chp 6 learning readiness question 1-12 prior to class discussion	7
4	Chapter 7 Use of the Energy Nutrients: Metabolism and Balance	(quiz Chp 5& 6)complete Chp 7 learning readiness question 1-5 prior to class discussion	9
4	Chapter 8 Vitamins Required for Calcified Structures	complete Chp 8 learning readiness question 1-11 prior to class discussion	13,14
5	Chapter 9 Minerals Essential for Calcified Structures	complete Chp 9 learning readiness question 1-10 prior to class discussion Quiz Chp 7&8	15,16,17
5	Chapter 10 Nutrients Present in Calcified Structures	Chapter 10 Learning readiness question 1-5 dietary plan of action discussion Activity: evaluate your diet diary report results with a dietary plan of action	12,13,15
6	Chapter 11 – Vitamins Required for Oral Soft Tissues and Salivary Glands	Review for midterm exam activity evaluate a peer dietary diary/ and dietary plan not any	15,16,17

		changes you made and recommendations	
6	Chapter 12 Fluids and Minerals Required for Oral Soft Tissues and Salivary Glands	Mid term exam chapters 1-10 Complete student learning readiness questions prior to class discussion	15,16,17
7	Chapter 13 Nutritional Requirements affecting Oral Health in Women	Quiz chp 11 & 12 Digital portfolio nutritional case study discussion/demo on Weebly website	11,12
8	Chapter 14 Nutritional Requirements During Growth and Development and Eating habits affecting oral health Treatment and Intervention Planning	Student readiness questions Chapter 14 1-7, assigned group discussion on a case study in class Continue with Weebly portfolio demo Start Weebly dietary portfolio	19, 20, 21
8	Chapters 15 Nutritional Requirements for Older Adults and Eating Habits Affecting Oral Health	Quiz chapter 13 & 14 continue with weebly portfolio development dietary analysis	20,21
9	Chapter 16 Food Factors Affecting Health	CHp 16 student readiness questions 1-9, Weebly portfolio assignment development	11
9	Chapter 17 Effects of Systemic Disease on Nutritional Status and Oral Health	Student readiness questions Chap 17, 1-7	13
10	Chapter 18 Nutritional Aspects of Oral Health	Student readiness questions Chap 18, 1-7 Discuss CAMBRA	11
10	Chapter 19 Nutritional Aspects of Gingivitis and periodontal Disease	Discuss application nutritional case studies with client selection of your choice from sheet Quiz chapter 17-18	18, 19, 20, 21
11	Chapter 20 nutritional Aspects of Alterations In the oral Cavity	Presentation- Nutritional case studies	1,2,3,5,10,18,19,20
11	Chapter 21 Nutritional Assessment and Education for Dental Patients	Presentation- Nutritional case studies	1,2,3,5,10,18,19,20,21
12	Review for Final Exam	Digital portfolio nutritional Case studies due	1,2,3,5,10,18,19,20,21
12	Final Exam		

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements. Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

Student will not be allowed to make up missed assignments/exams unless the student has contacted the instructor prior to or on the day of absence. Grading shall be determined by the following breakdown:

Quizzes	30%	180 points
Homework/ assignments	30%	100 points
Exams final & midterm	30%	100 points
<u>Group participation/discussion</u>	<u>10%</u>	<u>20points</u>
Total points	100%	400 points

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Portfolio development utilize website www.Weebly.com. When setting up the website select the standard page.

Assignments/ homework as evaluated as follows:

		4 ADVANCED	3 PROFICIENT	2 NEEDS IMPROVEMENT	1 FAILING
Explore, conjecture, and reason logically.	EFFICIENT EXPLANATION Communication - Does the explanation demonstrate effective mathematical reasoning and an efficient strategy for developing a solution?	Explanation is clear, efficient and flawless. <input type="checkbox"/> All relevant information is identified. Formulas, variables, properties, labels, etc. are included so the reader can tell what every number or variable represents. <input type="checkbox"/> Explanation is fully, accurately, and/or clearly explained. <input type="checkbox"/> Uses diagrams when appropriate. <input type="checkbox"/> No extraneous information <input type="checkbox"/> May provide multiple explanations and make connections between them. <input type="checkbox"/> May check on process with a second approach.	Explanation is mostly effective. <input type="checkbox"/> Some relevant information may not be identified or some information may be used that is incorrect or irrelevant (1-2 pieces). However, most of the relevant information is identified and is correctly used. <input type="checkbox"/> Explanation is not efficient or there is one conclusion that is not fully, accurately, and/or clearly explained.	Explanation is ineffective. <input type="checkbox"/> Most of the information relevant to solving the problem is not clearly identified or is used incorrectly (at least one piece is correct). <input type="checkbox"/> Some information identified is irrelevant for solving the problem. <input type="checkbox"/> More than one conclusion is not fully accurately and/or clearly explained.	Explanation is completely flawed. <input type="checkbox"/> The explanation only identifies information that is incorrect or irrelevant to the problem. <input type="checkbox"/> There are attempts to explain conclusions but they are not accurate, complete or clear.
Communicate and justify an effective problem solving strategy.	O for ORGANIZATION Organization – Is the thought process easy to understand?	Organization is thorough and complete. <input type="checkbox"/> The student's thought process can be followed in the explanation and steps are in logical order.	Some attempt has been made to organize the process. <input type="checkbox"/> Steps are out of order or one step critical to the process is missing. <input type="checkbox"/> Skipped steps that may seem obvious.	Little attempt has been made to organize the process. <input type="checkbox"/> Steps are out of order and/or there is more than one step critical to the process that is missing.	Process is not in any logical order and is difficult to follow.
Apply new knowledge drawn from experience and prior knowledge to solve context-based problems.	A for ANSWER Is the answer to the problem correct?	Answer is completely accurate and demonstrates a deep understanding of the problem. <input type="checkbox"/> Correctly identifies appropriate mathematical concepts and information necessary to solve the problem. <input type="checkbox"/> Responds directly to the question asked. Answer indicates that the student understands the concept(s) being assessed. <input type="checkbox"/> All parts of the explanation are correct. <input type="checkbox"/> All mathematics vocabulary is used correctly. <input type="checkbox"/> All mathematical notation is used correctly.	Answer is mostly accurate and demonstrates a broad understanding of the problem. <input type="checkbox"/> Careless mistakes or a false statement(s) (1-2 small errors or one major error) tarnish an otherwise correct solution. <input type="checkbox"/> Responds directly to the question asked. Answer statement indicates that the student mostly understands the concept(s) being addressed.	Answer is incomplete or off by a large factor. <input type="checkbox"/> There is at least one part of the process or solution that is correct. <input type="checkbox"/> Answer statement indicates several misunderstandings about the concept(s) being assessed.	Answer is not reasonable. <input type="checkbox"/> Answer statement indicates that the student does not understand the concept(s) being assessed.

DHY 235 Nutrition for Dental Hygiene

J Williams

Name: _____

50 points

Multiple Choice: Choose the letter for the best response to each of the following multiple choice items. There is only one correct item

1. Nutrients that supply energy to the body are protein, fat, and:
 - a. Carbohydrate
 - b. Minerals
 - c. Vitamins
 - d. Water

2. Which of the following carbohydrates can be absorbed by cells in the small intestine?
 - a. Dietary fiber
 - b. Disaccharides
 - c. Monosaccharides
 - d. Polysaccharides

3. Your blood level of glucose is rising because you just drank a Coke. What hormone will your body use to lower the blood glucose back to acceptable levels?
 - a. Epinephrine
 - b. Glucagon
 - c. Glycogen
 - d. Insulin

4. A friend tells you she has noticed that after eating yogurt and cheese, she has cramps and bloating. This is an indication that she may have:
 - a. Galactosemia
 - b. Lactose intolerance
 - c. Noninsulin, dependent diabetes
 - d. Reactive hypoglycemia

5. The chemical process for joining 2 monosaccharides to form a disaccharide is called:
 - a. Condensation
 - b. Gluconeogenesis

- c. Hydrolysis
- d. Ketosis

6. Glucose is stored in muscles as a polysaccharide called:

- a. Amylose
- b. Galactose
- c. Glycogen
- d. Myoglobin

7. The majority of fats consumed in our diets are:

- a. cholesterol
- b. lipoproteins
- c. phospholipids
- d. triglycerides

7. Animal fats contain more _____ than do most vegetable oils

- a. Bile
- b. Kcalories
- c. Saturated fat
- d. Triglycerides

8. A fatty acid that contains 2 double bonds is said to be :

- a. Hydrogenated
- b. Monosaturated
- c. Polysaturated
- d. Saturated

9. Lipids are digested primarily in the:

- a. Mouth
- b. Stomach
- c. Gall bladder
- d. Small intestine

10. The main function of high density lipoproteins (HDL) is to:

- a. Emulsify fats
- b. Form an integral part of cell walls
- c. Return cholesterol to the liver to be metabolized
- d. Synthesize vitamin D from ultraviolet light

11. Each of the following elements is found in carbohydrates, fats, and proteins except one. Which element is NOT found in all three?

- a. Carbon
- b. Hydrogen
- c. Nitrogen

d. Oxygen

12. The proteins that inactivate foreign bacteria and viruses are called:

- a. Antibodies
- b. Buffers
- c. Enzymes
- e. Hormones

13. Positive protein (nitrogen) balance is to be expected when a person:

- a. has been fasting for more than a week
- b. is sick and is running a high fever
- c. is pregnant
- d. is losing weight
- e.

14. During the process of digestion, enzymes perform _____ to break apart peptide bonds.

- a. Condensation
- b. Deamination
- c. Hydrolysis
- d. Transamination

15. A deficiency of this vitamin may result in rickets.

- a. Vitamin A
- b. Vitamin D
- c. Vitamin E
- d. Vitamin K

16. A food group high in vitamin B₁₂ is:

- a. Dairy
- b. Fats and oils
- c. Meats
- d. Vegetables

17. Each of the following is an example of a secondary deficiency of a vitamin **except:**

- a. You didn't consume enough of the vitamin
- b. You couldn't absorb the vitamin into your body
- c. Your use of alcohol and tobacco altered your body's use of the vitamin
- d. Your body is not able to utilize the vitamins it absorbs

18. A person deficient in this vitamin may exhibit a prolonged bleeding time:

- a. Vitamin A
- b. Vitamin D
- c. Vitamin E
- d. Vitamin K

19. Cracking at the corners of the mouth is called:

- a. cheilosis
- b. dermatitis
- c. Glossitis
- d. Hypercarotenemia

20. Beriberi is the deficiency disease associated with:

- a. Biotin
- b. Niacin
- c. Thiamin
- d. Vitamin B12

21. Symptoms of vitamin C deficiency include:

- a. Angular cheilosis, glossitis, and photophobia
- b. Bleeding gingiva, bruises easily, and slow wound healing
- c. Dermatitis of areas exposed to the sun, diarrhea, and dementia
- d. Problems walking, macrocytic anemia, and glossitis

22. Symptoms of a folate deficiency will be similar to symptoms of a _____ deficiency.

- a. Niacin
- b. Riboflavin
- c. Vitamin B6
- d. Vitamin B12

23. Water from cell metabolism is available for use by the body.

- a. True
- b. False
- c.

24. The bioavailability of iron is improved when foods with iron are eaten along with foods high in:

- a. Fluoride
- b. Oxalic acid and phytates
- c. Pantothenic acid
- d. Vitamin C

25. To be classified a major mineral you need more than _____ per day of it in your diet

- a. 5mg
- b. 10mg
- c. 75mg
- d. 100mg

DHY 123 Oral Embryology & Histology

Fall 2016

Instructor Contact Information

Jody Williams

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Course Description

(Credits: 2) This course is designed to provide students with an embryological foundation regarding growth and development of the oral facial structures. Topics include developmental timelines for dental structures and the factors influencing them. Emphasis on initiation, eruption, and exfoliation will be covered.

Prerequisites

Required: DHY 117 & DEA 256

Required Textbooks

Chiego, D. (2014) *Essentials of oral histology and embryology*. Saint Louis: Elsevier

Course Focus

The focus of this course is on study of oral histological tissues components, and structures of facial development. Emphasis is on histology of the face, teeth, and oral structures with a concentration on tooth formation eruption and exfoliation. Theories,

assessments are applied. Instructional strategy will include lectures, study objectives quizzes, and enrichment projects.

Course Goals/ Student Learning Outcomes

The student will be able to do,

1. Describe the basic stages of development during the first trimester of growth.
2. Describe and differentiate the three primary embryonic tissues.
3. Describe prenatal development and disturbances of the face and oral cavity.
4. Describe and identify histological features of four primary tissues.
5. Identify the microscopic, macroscopic, and histological features of the gingiva and hard palate.
6. Describe histological features of the oral mucosa, salivary glands, and tongue.
7. Describe the pre eruptive, exfoliation of the primary teeth.
8. Describe the eruption process of the permanent teeth.
9. Describe the age related physical and chemical changes in enamel.
10. Compare the amelogenesis, dentinogenesis, and cementogenesis.
11. Describe and compare mineralization processes for enamel, dentin and cementum.
12. Differentiate the physical, structural and chemical components of the enamel, dentin and pulp.
13. Describe the physical, structural, and function of the periodontal ligament, cementum, alveolar process, and alveolar base.
14. Discuss the development of the mandible and maxilla.

ENRICHMENT OPTIONS: *(see dental hygiene procedure manual for enrichment requirements /limitations)*

These enrichments are worth a maximum of 50 course points. All enrichments must be typed and submitted prior to the last class date.

Report on any of the following topics. All reports must include three (3) references and a bibliography.

- a. Abnormal tooth development including the etiology and treatment.
- b. Effects of dental treatment on the dentin and dental pulp.
- c. Histological effects of dental cries on the enamel, dentin, and dental pulp.
- d. Effects of occlusal trauma no the attachment apparatus.
- e. Effects of periodontitis on the attachment apparatus.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, study

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 123 syllabi Discussion Chapter 1 Development and structure of cells and tissues	Discuss and complete Exercise: Label and identify structure of cells and tissues	1,2,3
2	Week 1 Quiz chapters 1 Discussion of chapters 2&3 Structure and function of cells, tissues and organs, development of oral facial region	Quiz chapter 1 Development and structures of cells and tissues. Exercise: Label and identify the development of oral facial region	1,2,3,4
3	Week 2 Quiz chp 2 &3 Discussion chapter 4& 5 Development of face and palate, development of teeth	Quiz chapter 2 &3 Structures and function of cells development of oral facial region Exercise: label and identify development of face, palate and development of teeth	1,3,4
4	Week 3 Quiz chapter 4 & 5 discussion chapter 6 & 7 Eruption and exfoliation of teeth, Enamel formation	Quiz chapter 4& 5 Discuss Development of face and palate, development of teeth Exercise: chart and identify eruption patterns, and exfoliation of teeth	1,3,
5	Week 4 Quiz chapters 6 & 7 discussion chapter 8	Quiz Chapters 6 & 7	1,3,4

	Dentin	Eruption and exfoliation of teeth, enamel formation Begin discussion on dentin formation, macroscopic features	
6	Mid term examination includes chapters 1-8 Discussion chapter 9 Dental pulp	Mid term exam chapters 1-8 Discuss dental pulp	1,2,3,4
		100 points	
7	Review mid term final results Week 7 discussion chapters 10 Cementum	Discuss written group report discuss cementum and alveolar bone	1,3,4
8	Week 7 quiz chapter 10 Discussion 11 &12 Periodontium: Periodontal Ligament, alveolar process	Quiz chapter 9 & 10 Cementum Compare the PDL to other ligaments. Discuss the attachment apparatus	1,3,4
9	Week 8 Quiz chapter 11 & 12 Discussion chapter 13 & 14 TMJ and Oral Mucosa	Quiz chapter 11 &12 Periodontal ligament, alveolar process Exercise: label and identify	1,7,8,10
10	Week 9 Quiz chapter 13 & 14 Discussion Chapter 15 &16 Salivary glands and tonsils, Biofilms	Quiz Chapter 13 &14 TMJ and oral mucosa	1,5,6,7,
11	Week 10 quiz chapter 14 &15 Discussion review for final	Quiz chapter 14 Salivary glands and biofilms Review for final	11,12, 13 &14
12	Review for Final Exam		1,2,3,4,5,6,7,8,9,10,11,12

12	Final Exam	100 points	
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objectives, examinations, quizzes, written reports, and discussions.

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. All assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, and discussions. Being prepared prior to class time by reading your text and completing the study objectives will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class. This also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class you must call and let me know.

Course Points

8- Quizzes	400 points
1 mid term	100 points
<u>1 final exam</u>	<u>100points</u>
Total points	600 points

Grading for quiz B as follows:

If the student fails to attain a 78% on a quiz, a Quiz B must be taken. This second chance quiz allows for the student to revisit and spend more time on the material. The grading is as follows:

Any Quiz A below 78% is required to take a Quiz B but the quiz B has points starting at 10% less than the quiz A. A B grade is the highest that the Quiz B can achieve. AS an example if you had a 57% on quiz A your score will be a no credit. You take a quiz B over the same subject material and achieve a 93%. Your score would be at the B range.

Grading Scale

Quiz A is for the full points listed under the Quiz A column. If the student quiz score is below 78% the student must take Quiz B within a week of taking the quiz A. This opportunity allows the student to retry but at lesser available points. The maximum letter grade for this retry is a B. This applies for all quizzes. **Mid terms and finals do not have a quiz B.**

Quiz A

Quiz B (second attempt quiz)

Quiz A	% Range	Quiz B	% Range
A	93-100	B	93-100
B	85-92	C	85-92
C	78-84	D	78-84
D	75-77	F	0-77
F	0-74		

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I

Objectives: Development, structure of cells and tissues

Upon completion of this unit, the student will be able to:

1. Understand the cell structure and function
2. Understand cell division
3. Describe origin of human tissue
4. Development of human tissues

Content

Cell structure and function

- a. cell nucleus
- b. cell cytoplasm

Cell division

- a. cell cycle
- b. Mitosis
- c. Meiosis
- d. Apoptosis

Origin of human tissue

- a. Epithelial mesenchymal interaction
- b. Induction
- c. Cell differentiation
- d. Periods of prenatal development
- e. Ovarian cycle, fertilization, implantation
- f. Development of the embryonic disk

Development of human tissues

- a. Epithelial tissue
- b. Nervous system
 - Brain and spinal cord
 - Cranial nerves
- c. Connective tissue
 - Connective tissue proper
 - Blood and lymphatic tissues
 - Cartilage and bone
- d. Muscle
- e. Cardiovascular system
- f. Developmental abnormalities

Objectives: Structure and function of cells, tissues and organs.

1. Discuss how the various tissues of the body build upon one another
2. Describe the components of specific organ systems such as the skin and its accessories, the digestive system, the respiratory system, the vascular system, the lymphatic system, the endocrine system, the urinary system, the reproductive system, and the special senses.
3. List general functions of each of these organ systems.

Content

Cells and tissues

- a. Epithelial tissue
- b. Neural tissue
- c. Connective tissue
 - Cartilage
 - Bone
 - Blood
 - Lymphocytes
- d. Muscle tissue

Organs and organ systems

- a. Integumentary or skin system
- b. Neural system
- c. Skeletal system
- d. Digestive system
- e. Respiratory system
- f. Vascular system
- g. Lymphatic system
- h. Muscular system
- i. Endocrine system
- j. Urinary system
- k. Reproductive system
- l. Special senses

Objectives: Development of the oral facial region

1. Discuss the development of the oral pharynx: the pharyngeal arches, including the pharyngeal pouches, and the neural and vascular components.
2. Describe the skeletal components and the development of the tissues of the face.

Content

Development of the oropharynx

Development of the pharyngeal arches

- a. Pharyngeal grooves and pharyngeal pouches

- b. Vascular development
- c. Muscular and neural development
- d. Cartilaginous skeletal development

Development of the craniofacial skeleton

- a. Cartilages of the face
- b. Bones of the face
- c. Sutures of the face

Objectives: Development of the face and palate

1. Describe prenatal facial development during the fourth to seventh weeks of gestation.
2. Describe palatal development during the seventh to ninth weeks of gestation.
3. Explain how the tongue and thyroid develop.
4. Discuss development of facial and palatal clefts and other facial defects.

Content

Facial development: weeks 4-7

- a. Tissue organization
 - Fourth week
 - Fifth week
 - Sixth week
 - Seventh week
- b. Palatal development: weeks 7-9
 - Medial and lateral palatal processes
 - Palatal shelf elevation and closure
 - Tongue development
 - Body and base
 - Thyroid gland

Malformations

- a. Facial clefts
- b. Palatal clefts
- c. Other defects

Unit II

Objectives: Development of teeth

1. Describe the origin of the tooth formative cells and the role of the induction in tooth formation.
2. Describe the stages of tooth formation and the mineralization of enamel and dentin.
3. Describe the development of the tissues that surround the developing teeth.

Content

- a. Initiation of tooth development
- b. Stages of tooth development
- c. Development of the dental papilla
- d. Dentinogenesis
- e. Amelogenesis
- f. Crown maturation
- g. Development of the tooth root
 - Root sheath
 - Single root
 - Multiple roots
- h. Development of primary and permanent teeth.
- i. Development of supporting structures.
 - Periodontal ligament
 - Alveolar process

Objectives: Eruption and shedding of the teeth

1. Describe the three phases of tooth eruption: preeruption, prefunctional, and functional.
2. Describe the initial growth of the tooth and the compensational changes that occur in the surrounding overlying and underlying tissues.

Content

Preeruptive phase

Prefunctional eruptive phase

a. Changes in tissues

Overlying the teeth

Surrounding the teeth

Underlying the teeth

Functional eruptive phase

Possible causes of tooth eruption

Sequences and chronology of tooth eruption

Shedding of primary teeth

Comparisons of the primary and permanent dentitions

a. Tooth number and size

b. Roots

c. Tooth structure

d. Pulp shape and size

e. Arch shape

f. Root resorption and pulp degeneration

Objectives: Enamel

1. Describe the physical features of enamel such as the structure of the enamel rods, incremental lines, lamellae, tufts and spindles
2. Discuss how these affect the permeability of enamel.
3. Discuss the surface characteristics and the etching of enamel.

Content

Physical properties
 Rod structure
 Incremental lines
 Enamel lamellae
 Enamel tufts
 Enamel spindles
 Surface characteristics
 Permeability

Objectives: Dentin

1. Describe the various types of dentin and the structures they contain.
2. Describe the dental process that lies in the dental tubules.
3. Discuss the relationship of the enamel to the dentin at their junction.

Content:

Physical properties

Dentin classification

- a. Primary dentin
- b. Secondary dentin
- c. Tertiary dentin: Reactionary/Response and Reparative

Predentin

Tubular and intertubular relations

- a. Primary and secondary tubules
- b. Intratubular or peritubular dentin and sclerotic dentin
- c. Intertubular dentin

Incremental Lines

Granular Layer

Odontoblastic cell processes

Dentinoenamel junction

Permeability

Repair process

Objectives: Dental pulp

1. Describe the anatomy of the pulp and the histology of the odontoblasts, fibroblasts, Schwann cell, the endothelial cells of the arteries vein, and

capillaries, pericytes and perivascular cells, and undifferentiated cells within the pulp proper and macrophages.

2. Describe the structure of the blood vessels.
3. Discuss the extracellular matrix of the pulp, predentin, pulp stones, and diffuse calcifications and changes that take place during the aging process.
 - a. Anatomy of the pulp
 - i. Coronal pulp
 - ii. Radicular pulp
 - iii. Apical foramina and accessory canals
 - b. Histology of pulp
 - i. Odontoblasts
 - ii. Fibroblasts
 - iii. Other pulpal cells
 - iv. Fibers and ground substance
 - v. Vascularity
 - vi. Nerves
 - vii. Nerve endings
 - c. Pain and the pulp-dentin complex
 - d. Functions of the pulp
 - e. Regressive changes
 - i. Fibrous changes
 - ii. Pulp stones
 - iii. Diffuse calcifications

Objectives: Cementum

1. Describe the development of cementum and its function on the surface of the root.
2. Describe the nature and the physical properties of intermediate cementum and cellular cementum and acellular cementum
3. Discuss the aging of cementum, the formation of cementicles, and the repair of cementum.
 - a. Role of cementum on root surface
 - b. Development of cementum
 - c. Intermediate cementum
 - d. Cellular and acellular cementum
 - e. physical properties
 - f. Aging of cementum
 - g. Cementicles
 - h. Cemental repair: functional and anatomical

Unit III

Objectives: Periodontium: periodontal ligament

1. Describe the location and structure of the periodontal ligament
2. Explain the purpose of the periodontal ligament
3. Understand the different functions of nerves and blood vessels in and around the ligament and how they interact with one another.
4. Describe the changes that occur in the periodontium as a result of the aging process.

Content

Organization of the periodontal ligament

- Gingival fiber group
- Dentoalveolar fiber group
- Interstitial spaces
- Vascular system
- Neural system

Cells of periodontal ligament

- Fibroblasts, osteoblasts, and cementoblasts
- Macrophages and osteoclasts
- Epithelial rests
- Intercellular tissue

Functions of periodontal ligament

- Supportive
- Sensor
- Nutritive
- Maintenance

Objectives: Periodontium: alveolar process and cementum

1. Describe the nature of alveolar bone proper and supporting bone.
2. Explain how cementum serves in tooth support.
3. Describe the condition of physiologic tooth movement.
4. Understand the effects of aging on the tooth supporting structures and the condition of edentulous jaws.

Content

Alveolar process

- Alveolar bone proper
- Supporting compact bone
- Supporting cancellous bone

Cemental support

Tooth Movement

- Physiological movement
- Orthodontic movement

Aging of alveolar bone and cementum

Edentulous jaws

Objectives: Temporomandibular joint

1. Describe the structure of the temporomandibular joint, the condyles and the temporal fossa, the articulating disk, and the capsule.
2. Discuss the function of the temporomandibular joint and the role of the masticatory muscle.

Content

Structure

Mandibular condyle

Temporomandibular fossa

Upper and lower compartments

Articular disk

Capsule and ligaments

Vascular supply

Innervation

Remodeling of temporomandibular joint articulation

Unit IV

Objectives: Oral Mucosa

1. Describe the various types of oral mucosa including lining, masticatory, and specialized.
2. Describe the location and characteristics of nonkeratinocytes.
3. Explain the various changes in oral mucosa that occur with aging.

Structure of oral mucosa

Lining mucosa

Lips

Soft Palate

Cheeks

Ventral surface of the tongue

Floor of mouth

Masticatory mucosa

Gingiva and epithelial attachment

Free and attached gingiva

Junctional epithelium

Interdental papilla and col

Hard palate

Specialized mucosa

Types of papillae

Tastes buds

Umami taste modality

Nerves and blood vessel

Epithelial nonkeratinocytes

Langerhans cells

Merkel cells
Melanocytes
Lymphocytes and leukocytes
Changes with aging

Objectives: Salivary glands and tonsils

1. Discuss the classification of the major and minor salivary glands.
2. Explain the composition and function of saliva
3. Describe the location and purpose of salivary gland duct systems
4. Discuss the classification of tonsillar tissue
5. Explain the function of the tonsils

Content

Classification of salivary glands
Major salivary glands
Minor salivary glands
Saliva
 Composition
 Functions
 Duct system
 Innervation of the salivary glands
Myoepithelial cells
Classification of tonsillar tissue
 Palatine tonsils
 Lingual tonsil
 Pharyngeal tonsil
Function of tonsils

Objectives: Biofilms

1. Define the origin and components of cuticle.
2. Discuss the composition of acquired pellicle and plaque.
3. Describe the location and composition of calculus.
4. Explain why saliva is important in determining oral health.

Content

Cuticle
Acquired pellicle
Plaque
Calculus

DHY 123 - Oral Embryology and Histology

Final Examination Name _____

Williams

Choose the best response to each of the following matching items; then shade in the letter for that response on the answer sheet.

***The letters may be used only once.**

Match each tissue with its approximate percentage of **inorganic** material.

1. alveolar bone
 2. cementum
 3. dentin
 4. enamel
- a. 96%
 - b. 70%
 - c. 60%
 - d. 46%

Match each tissue with its approximate percentage of **organic** material.

5. alveolar bone
 6. cementum
 7. dentin
 8. enamel
- a. 32%
 - b. 22%
 - c. 20%
 - d. < 1%

Match each tissue with its approximate percentage of **water**.

9. alveolar bone
10. cementum

- 11. dentin
- 12. enamel
- a. 32%
- b. 10%
- c. 8%
- d. 3%

***Letters may be used more than once or not at all.**

Match the following parts of the tooth germ with the tissues they produce.

- 13. cementum
- 14. dentin
- 15. enamel
- 16. pulp
- 17. periodontal ligament
- a. dental follicle
- b. dental papilla
- c. enamel organ

Match the following primitive tissues with the mature tissues that they give rise to.

- 18. cementum
- 19. dentin
- 20. enamel
- 21. pulp
- 22. periodontal ligament
- a. ectoderm
- b. endoderm
- c. mesoderm

Letters may be used only once or not at all.

Match the ducts to the appropriate gland.

- 23. Parotid
- 24. Sublingual
- 25. Submandibular
- a. Bartholin's duct
- b. Stenson's duct
- c. Wharton's duct

Choose the best response to each of the following multiple choice items; then shade in the letter for that response on the answer sheet. There is only 1 correct response for each item.

- 26. A fetus's tongue fails to drop down during the eighth week of development. This is most likely to result in a cleft in the:
 - a. buccal mucosa.
 - b. palate.
 - c. tongue

d. upper lip.

27. Picture 1 on the attached sheet shows a process called:

- a. cleavage.
- b. ectoblastitis.
- c. fusion.
- d. merging.

28. The organic matrix found in mature enamel is called:

- a. amelogenin.
- b. enamelin
- c. GAGs.
- d. primary enamel cuticle.

29. During a gingivectomy the periodontist removes the **free gingiva** to reduce the size of a pocket. This would mean that the ___ have been removed.

- a. alveolar mucosa and submucosa.
- b. epithelium and submucosa.
- c. lamina propria and epithelium.
- d. periodontal ligament and junctional epithelium.

30. When looking at the **epithelium** of the alveolar mucosa under the microscope, you would see:

- a. basal, intermediate, and superficial layers.
- b. basal, prickle, granular, and keratinized layers.
- c. irregular dense fibrous connective tissue.
- d. loose connective tissue.

31. The basal cells of the **junctional epithelium** are connected to the tooth by:

- a. collagen fibers.
- b. desmosomes.
- c. hemidesmosomes.
- d. keratinocytes.

32. You are looking at a slide that shows the area of the mucogingival junction. When comparing the attached gingiva to the alveolar mucosa, what would you see?

- a. The connective tissue papilla of the attached gingiva are longer and more numerous than those in the alveolar mucosa.
- b. Epithelium of the alveolar mucosa has four cell layers; the attached gingiva only has three.
- c. There are glands in the submucosa of the alveolar mucosa but not in the submucosa of the attached gingiva.
- d. The submucosa of the attached gingiva is thicker than that of the alveolar mucosa.

33. Where would you find the greatest number of collagen fibers? In the:

- a. epithelium of lining mucosa.
- b. lamina propria of the gingiva.
- c. prickle cell layer of the masticatory mucosa.
- d. submucosa of the alveolar mucosa.

34. Following an exposure to acid from dental plaque, enamel crystals can be **repaired by** the ___ in saliva.

- a. antibodies.
- b. ph.
- c. mineral ions.
- d. zymogen granules.

35. You are completing a dental chart on a 12 year old boy. The enamel on #9 is pitted. The instructor in the clinic tells you this is **enamel hypoplasia**. This means in that area:

- a. the amelogen did not convert to enamelin.
- b. there was not enough matrix deposited by the ameloblasts.
- c. there was xerostomia prior to eruption.
- d. too many minerals were deposited during the maturation stage.

36. The Grinch has decided to speed up eruption of permanent teeth so he can steal the extra Tooth Fairy money from all the little Who's on Whoville. He needs to know what makes teeth erupt. Tell him which of the following forces has been demonstrated to take part in the eruption of teeth.

- a. Deposition of alveolar bone at the apex of the tooth
- b. Increased vascular pressure apical to the tooth
- c. Lengthening of the root
- d. Squeezing of the epithelial diaphragm

37. We have a new intra-oral microscope that will let you see into the gingival sulcus. You are looking in your own mouth at the junctional epithelium of your maxillary right central incisor on the TV monitor. At this time in your life, your junctional epithelium is derived from the:

- a. epithelial root sheath.
- b. mesoderm.
- c. oral epithelium.
- d. reduced enamel epithelium.

38. Poor fusion between 2 cusps of a molar would result in the formation of:

- a. enamel hypoplasia.
- b. a fissure.
- c. a groove.

d. a pit.

39. Slowing the advance of caries through the tubules of primary dentin can be accomplished by the formation of:

- a. dead tracts.
- b. sclerotic dentin.
- c. secondary dentin.
- d. tertiary dentin.

40. You are looking at a radiograph of tooth #12. The root of this premolar shows a widened periodontal ligament space. Which of the following situations could have caused the periodontal ligament to become wider?

- a. The client has bruxism. He grinds his teeth at night.
- b. The client has normal function. The periodontal ligament just gets wider with age.
- c. The posterior teeth on the lower right quadrant have been extracted so that #12 has less function.
- d. There are epithelial rests in the periodontal ligament.
- e.

41. Your client's roots are exposed by recession, this is causing dentinal sensitivity. You show her the results in the mirror. She wants to know if the cementum will repair itself. You tell her it probably will not because:

- a. excess periodontal ligament fibers will interfere with cementum formation.
- b. the alveolar bone in the area will interfere with cementogenesis.
- c. the exposed roots are too smooth for new cementum to stick to.
- d. there are no cementoblasts outside of the periodontal ligament space.

42. After reviewing an old dental charting, you realize that Mr. Long's mandibular 1st molar has moved toward the anterior region of his mouth. You tell him the term for this is:

- a. Anterior movement
- b. Mesial drift
- c. Horizontal tilt
- d. Misaligned tooth

43. The tissue description for Mr. White notes that the free gingiva is red, rolled, and spongy. Which periodontal ligament fibers have been damaged and are not able to maintain the normal position of the gingiva?

- a. Alveolar crest
- b. Circumferential
- c. Horizontal
- d. Transseptal

44. Your client wants to know how fluoride works. You tell him that the fluoride will remineralize his teeth because the enamel is:

- a. ductile.

- b. permeable.
- c. soluble.
- d. vital.

45. One reason alveolar bone will resorb with less pressure than it takes to resorb cementum is because:

- a. alveolar bone is nonvital.
- b. cementum does not contain blood vessels.
- c. odontoclasts are destroyed after permanent tooth eruption.
- d. oxytalan fibers interfere with formation of cementoclasts.

46. Which of these conditions would decrease dentinal hypersensitivity? The presence of:

- a. dead tracts
- b. denticles
- c. pulpitis
- d. reparative dentin

47. Which of these tooth tissues is not living (vital) at the time the tooth is functioning in the mouth?

- a. Cementum
- b. Dentin
- c. Enamel
- d. Pulp

48. On a radiograph of tooth #9, in the periodontal ligament space, you see an abnormal area that the DDS identifies as a cyst. Which of the following is likely to cause a cyst? The presence of:

- a. accessory canals
- b. ankylosis
- c. cementicles
- d. epithelial rests

49. Look at Picture 3. Which area is a fenestration?

- a. Blue arrow
- b. Green arrow
- c. Red arrow

50. Look at Picture 4. Which arrow is pointing at the periosteal lamella?

- a. Black arrow
- b. Green arrow
- c. Purple arrow
- d. Yellow arrow

51. Look at Picture 4. Which arrow is pointing at a Haversian canal?

- a. Blue arrow

- b. Green arrow
- c. Purple arrow
- d. Yellow arrow

52. Where are you likely to find minor salivary glands?

- a. basal layer of the hard palate
- b. dense irregular fibrous connective tissue of the soft palate
- c. lamina propria of the alveolar mucosa
- d. submucosa of the buccal mucosa

53. You are looking at a radiograph of tooth #28. The lamina dura looks normal and healthy on this radiograph. The lamina dura is the radiographic name for the:

- a. alveolar bone proper.
- b. cortical plate.
- c. entire alveolar process.
- d. spongy bone.

54. All of the following lingual papillae contain taste buds except:

- a. Circumvallate papillae
- b. Funiform papillae
- c. Foliate papillae
- d. Filiform papillae

55. Von Ebner's salivary glands are associated with which lingual papillae?

- a. Circumvallate
- b. Fungiform
- c. Foliate
- d. Both a and c.

56. The pulp in Jonathan's tooth is infected from a dental caries exposure. Which of the following features of his root could cause the infection to be transmitted out into the horizontal fibers of his periodontal ligament?

- a. Accessory canals in the middle of the root
- b. Apical foramen
- c. Dentinal tubules
- d. Sclerotic dentin

57. Tooth #k is ankylosed. What effect is this likely to have?

- a. Cementicles will form in the periodontal ligament of #k.
- b. The enamel on #20 will have hypocalcification.
- c. Tooth #k will hyper-erupt.
- d. Tooth #20 will not be able to cause #k to exfoliate.

58. Which of these tissues is not part of the periodontium?

- a. Alveolar mucosa
- b. Cementum
- c. Free gingiva

d. Periodontal ligament

59. The primary palate must fuse with which other structures to form a functional palate?

- a. Frontal process and tuberculum impar
- b. Maxillary processes and lateral nasal processes
- c. Median nasal process and maxillary processes
- d. Right and left lateral palatine processes

60. The presence of the ____ will cause the differentiation of odontoblasts to make dentin on the root.

- a. dental follicle.
- b. dental lamina.
- c. dental cuticle.
- d. root sheath.

61. Which of the following cells help to facilitate the flow of saliva out of each lumen?

- a. Serous demilune cells
- b. Serous cells
- c. Mucous cells
- d. Myoepithelial cells

62. Look at Picture 2 on the color plates. One arrow is pointing to masticatory mucosa and one to lining mucosa. Which arrow is pointing to lining mucosa?

- a. Black arrow
- b. Green arrow

Look at Picture 5.

63. Which area has a submucosa?

- a. Area A
- b. Area B
- c. Area C

64. What color is the line for the mucogingival junction?

- a. Blue
- b. Green
- c. Red
- d. Yellow

65. The stippling in area A is caused by:

- a. The lamina propria is firmly attached to the tooth and alveolar bone.
- b. The strong pull of the epithelial ridges and connective tissue papillae.
- c. Both a and b.

66. Letter A (the area between the green and blue lines) represents the:

- a. alveolar mucosa

- b. attached gingiva
- c. labial mucosa
- d. sublingual sulcus

67. Letter C (the area under the green line) represents the:

- a. alveolar mucosa
- b. attached gingiva
- c. free gingiva
- d. gingival margin

68. The yellow area represents the:

- a. attached gingiva
- b. col
- c. interdental papilla
- d. traction bands

69. The blue line on the picture represents the:

- a. free gingival groove
- b. gingival margin
- c. mucogingival junction
- d. traction bands

70. The red line represents the:

- a. gingival margin
- b. sulcus
- c. interdental papilla

.

DHY 143 Oral Pathology

Fall 2016

Instructor Contact Information

Jody Williams

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Course Description

(Credits: 2) This course is designed to provide knowledge in general pathology and specific pathologic processes, including inflammatory and immunologic defenses, as well as neoplastic, metabolic, inherited and developmental disturbances. The student will be able to develop useful differential diagnosis.

Prerequisites

Required: DHY 117 & DEA 256

Required Textbooks

Ibsen, O. & Phelan, J. (2014). *Oral pathology for the dental hygienist*. Elsevier: Saint Louis

Course Focus

The focus of this course is on study of oral histological tissues components, and structures of facial development. Emphasis is on histology of the face, teeth, and oral structures with a concentration on tooth formation eruption and exfoliation. Theories, assessments are applied. Instructional strategy will include lectures, study objectives

quizzes, and enrichment projects.

Course Goals/ Student learning outcomes

The student will be able to do,

1. assess variants of normal and benign conditions of the oral cavity
2. evaluate the process of inflammation
3. evaluate the healing process
4. compare oral diseases with immunologic pathogenesis
5. describe process of immune response
6. analyze the clinical appearance of oral manifestations of AIDS/HIV
7. compare the oral symptoms of viral, bacterial, and fungal infections
8. compare developmental soft tissues anomalies
9. compare developmental abnormalities
10. compare inherited disorders that affect the head and neck region
11. examine the epidemiology and etiology of neoplasia
12. evaluate the general characteristics of benign and malignant neoplasms
13. evaluate neoplastic diseases which commonly occur in the head and neck region
14. describe and recognize benign fibro-osseous lesions
15. describe and discuss disorders of the temporomandibular joint
16. analyze the function of the endocrine system
17. describe the oral effects of pathology of the endocrine system
18. analyze the etiology and pathogenesis of specific blood diseases

ENRICHMENT OPTIONS: *(see dental hygiene procedure manual for enrichment requirements /limitations)*

These enrichments are worth a maximum of 50 course points. All enrichments must be typed and submitted prior to the last class date.

Report on any of the following topics. All reports must include three (3) references and a bibliography.

- a. Abnormal tooth development including the etiology and treatment.
- b. Effects of dental treatment on the dentin and dental pulp.
- c. Histological effects of dental cries on the enamel, dentin, and dental pulp.
- d. Effects of occlusal trauma on the attachment apparatus.
- e. Effects of periodontitis on the attachment apparatus.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, study objectives, examinations, quizzes, written reports, and discussions.

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 143 syllabi Discussion Chapter 1 oral lesions	Recognize variants of normal and benign	1,2,3
2	Week 1 Quiz chapters 1 Discussion of chapter 2 Inflammation and repair,	Quiz chapter 1 Describe the process of inflammation and healing	1,2,3,4
3	Week 2 Quiz chp 2 Discussion chapter 3 Immunity and immunologic oral lesions	Quiz chapter 2 Recognize oral disease with immunologic pathogenesis describe process of immune response	1,3,4,5
4	Week 3 Quiz chapter 3 discussion chapter 4 Infectious Diseases	Quiz chapter 3 Describe clinical appearance of oral manifestations of AIDS/HIV recognize te oral symptoms of viral bacteria and fungal infections	1,3,6,7,8
5	Week 4 Quiz chapter 4 discussion chapter 5 Developmental disorders	Quiz Chapter 4 Recognize developmental soft tissue anomalies, recognize developmental abnormalities	1,3,4

6	Mid term examination includes chapters 1-5	Mid term exam chapters 1-5	1,2,3,4
		100 points	
7	Review mid term final results Week 7 discussion chapter 6 Genetics	Discuss written group report Describe inherited disorders of the head and neck region	1,3,4,10
8	Week 7 quiz chapter 6 Discussion chapter 7 Neoplasia	Quiz chapter 6 Discuss the epidemiology and etiology of neoplastic Describe the general characteristics of benign and malignant neoplasms Identify neoplastic diseases that commonly occur in the head and neck region	1,3,4,11,12, 13,18
9	Week 8 Quiz chapter 7 Discussion chapter 8 Nonneoplastic diseases	Quiz chapter 7 Discuss benign fibrous lesions	1,7,8,10,12,14
10	Week 9 Quiz chapter 8 Discussion Chapter 9 Oral Manifestations of systemic diseases	Quiz Chapter 8 Discuss Diabetes oral manifestation	1,5,6,7,16,17
11	Week 10 quiz chapter 9 Discussion Chapter 10 Diseases affecting the TMJ review for final	Quiz chapter 9 Review for final	12,15
12	Review for Final Exam	Written report due	1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18
12	Final Exam	100 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. All assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, and discussions. Being prepared prior to class time by reading your text and completing the study objectives will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class. This also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class you must call and let me know.

Course Points

8- Quizzes	400 points
1 mid term	100 points
<u>1 final exam</u>	<u>100points</u>
Total points	600 points

Grading for quiz B as follows:

If the student fails to attain a 78% on a quiz, a Quiz B must be taken. This second chance quiz allows for the student to revisit and spend more time on the material. The grading is as follows:

Any Quiz A below 78% is required to take a Quiz B but the quiz B has points starting at 10% less than the quiz A. A B grade is the highest that the Quiz B can achieve. AS an

example if you had a 57% on quiz A your score will be a no credit. You take a quiz B over the same subject material and achieve a 93%. Your score would be at the B range.

Grading Scale

Quiz A is for the full points listed under the Quiz A column. If the student quiz score is below 78% the student must take Quiz B within a week of taking the quiz A. This opportunity allows the student to retry but at lesser available points. The maximum letter grade for this retry is a B. This applies for all quizzes. **Mid terms and finals do not have a quiz B.**

Quiz A

Quiz B (second attempt quiz)

Quiz A	% Range	Quiz B	% Range
A	93-100	B	93-100
B	85-92	C	85-92
C	78-84	D	78-84
D	75-77	F	0-77
F	0-74		

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the

SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Chapter I

Objectives: Introduction to preliminary diagnosis of oral lesions and tissues

Upon completion of this unit, the student will be able to:

1. Define each of the terms in the vocabulary list for this chapter
2. List and define the eight diagnostic categories that contribute to the diagnostic process.
3. Name a diagnostic category and give an example of a lesion, anomaly, or condition for which this category greatly contributes to the diagnosis.
4. Describe the clinical appearance of Fordyce spots torus palatinus, mandibular torus, and lingual varicosities and identify them in the clinical setting or on a clinical photograph.
5. Define variant of normal and give three examples of these lesions involving the tongue.
6. Describe the clinical characteristics and identify a clinical picture fo median rhomboid glossitis, geographic tongue, and hairy tongue.
7. Describe the clinical histologic differences between leukoplakia and erythroplakia.
8. Discuss the tow risk types of human papillomavirus covered in this chapter.

Content

The diagnostic Process

- a. Clinical diagnosis
- b. Radiographic diagnosis
- c. Historical diagnosis
- d. Laboratory diagnosis
- e. Microscopic diagnosis
- f. Surgical diagnosis
- g. Therapeutic diagnosis
- h. Differential diagnosis

Variants of Normal

- a. Fordyce granules
- b. Torus Palatinus
- c. Mandibular Tori
- d. Melanin Pigmentation
- e. Retrocuspid papilla
- f. Lingual varicosities
- g. Linea alba
- h. Leukodema

Benign Conditions of unkown Cause.

- a. Lingual thyroid nodule
- b. Median Rhomboid glossitis
- c. Geographic tongue
- d. Fissured Tongue

e. Hairy tongue

Objectives: Chapter 2 Inflammation and repair

Upon completion of this unit, the student will be able to:

1. Define and pronounce each of the words in the vocabulary list for this chapter.
2. List the classic signs for inflammation that occur locally at the site of inflammation.
3. List and describe the major systemic signs of inflammation.
4. List and describe the microscopic events of the inflammatory process.
5. Describe the microscopic events associated with each of the local signs of inflammation.
6. List the white blood cells that are involved in the acute inflammation and describe how each is involved. Describe the differences between acute and chronic inflammation.
7. Define and contrast hyperplasia, hypertrophy, and atrophy.
8. Describe the microscopic events that occur during mucosal tissue and healing in bone repair.
9. Describe the clinical features cause treatment, and microscopic appearance of each of the following traumatic neuroma, post inflammatory melanosis, oral and labial melanotic macule, solar cheilitis mucocele, pyogenic granuloma peripheral giant cell granuloma, chronic hyperplastic pulpitis and irritation fibroma.
10. Describe and contrast attrition, abrasion, erosion.
11. Describe and contrast internal and external tooth resorption. Describe the difference between acute and chronic sialadenitis.

Injury

Content:

- a. Necrosis

Natural Innate Defenses

Inflammation

- a. Local
- b. Systemic
- c. Acute
- d. Chronic
- e. Microcirculation
- f. Hyperemia
- g. Erythema
- h. Transudate
- i. Margination
- j. Pavementing
- k. Emigration
- l. Exudate
- m. Edema
- n. Fistula

- o. Chemotaxis
 - p. Phagocytosis
- White Blood Cells in the Inflammatory response

- a. Macrophages
- b. Neutrophils
- c. Polymorphonuclear leukocytes
- d. Lysosomal enzymes

Biochemical mediators of inflammation

- a. Kinin system
- b. Clotting mechanism
- c. Complement system
- d. Other biochemical mediators of inflammation

Systemic manifestations of inflammation

- a. Fever
- b. Leukocytosis
- c. Lymphadenopathy
- d. Elevated C-reactive protein
- e. Chronic inflammation
- f. Anti-inflammatory drugs
- g. Reactive tissue responses
- h. Hyperplasia
- i. Hypertrophy
- j. Atrophy
- k. Regeneration
- l. Microscopic events during repair.
- m. Types of repair
- n. Bone tissue repair
- o. Attrition
- p. Abrasion
- q. Abfraction
- r. Erosion

Lesions from self-induced injuries

- a. Oral mucosal burns
- b. Ematoma
- c. Traumatic ulcer
- d. Frictional Keratosis
- e. Linea alba
- f. Nicotine stomatitis
- g. Tobacco associated keratosis
- h. Traumatic neuroma
- i. Amalgam tattoo
- j. Melanosis
- k. Solar cheilitis
- l. Mucous retention lesion

- a. Sialolith
- b. Necrotizing sialometaplasia
- c. Sialadenitis
- d. Pyogenic granuloma

Peripheral Giant Cell granuloma

Irritation fibroma, focal fibrous hyperplasia

Denture induced fibrous hyperplasia

Inflammatory papillary hyperplasia of the palate

Gingival enlargement

Chronic Hyperplastic pulpitis

Periapical abscess

Periapical granuloma

Radicular cyst

Tooth resorption

Focal Sclerosing Osteomyelitis

Alveolar osteitis

Chapter 3 Immunity and Immunologic Oral Lesions

Objectives: After this unit the student will be able to:

1. Describe the differences between an immune response and inflammatory response.
2. List and describe the two main types of lymphocytes, including their origins and activities.
3. List and describe the different types of T-cell lymphocytes and their functions
4. Describe the origin of macrophages and list their activities in the immune response.
5. Describe the different types of immunities.
6. Describe the process of immunodeficiency and how it results in disease.
7. Describe and contrast the clinical features of each three aphthous ulcers.
8. List systemic disease associated with aphthous ulcers.
 - a. Acquired immune response
 - b. Antigens
 - c. Cellular involvement in the immune response
 - d. T-cell lymphocyte
 - e. Natural Killer cell
 - f. Macrophage
 - g. Dendritic cell
 - h. Cytokines
 - i. Immunity
 - j. Passive immunity
 - k. Active immunity
 - l. Immunization
 - m. Live-attenuated vaccines
 - n. Immunopathology

- o. Hypersensitivity
 - a. Four stages of hypersensitivity
- p. Autoimmune diseases
- q. Immunodeficiency
- r. Aphthous Ulcers
 - a. Types of aphthous ulcers
- s. Urticaria
- t. Contact mucositis and dermatitis
- u. Fixed Drug eruptions
- v. Erythema multiforme
- w. Lichen Planus
- x. Reactive Arthritis (Reiter Syndrome)
- y. Langerhans Cell Histiocytosis
- z. Pemphigus vulgaris

Chapter 4 Infectious diseases

Objectives : after studying this the student will be able to:

1. State the difference between an inflammatory and an immune response to infection.
2. Describe the factors that allow opportunistic infection to develop.
3. For each of the following infectious disease, name the organism causing it, list the route or routes of transmission of the organism and the oral manifestations of the disease, and describe how the diagnosis is made : impetigo, tuberculosis, actinomycosis, syphilis, verruca vulgaris, condyloma acuminatum and primary herpetic gingivostomatitis.
4. Describe the relationship between streptococcal tonsillitis, pharyngitis, scarlet fever, and rheumatic fever.
5. Describe the four forms of candidiasis. Describe the clinical features of herpes labialis,
6. Describe the clinical features of recurrent intraoral herpes simplex infection and compare them with the clinical features of minor aphthous ulcers.
7. Describe the clinical signs of herpes zoster when it affects the skin of the face and oral mucosa.
8. List two oral infections for which a cytologic smear may assist in confirming the diagnosis.
9. List two diseases caused by coxsackieviruses that have oral manifestations.
10. Describe the spectrum of HIV including initial infection and the development of acquired immunodeficiency syndrome.

Bacterial Infections

- a. Impetigo
- b. Tonsillitis and pharyngitis

- c. Tuberculosis
 - i. Granulomatous disease
 - ii. Iliary tuberculosis
 - iii. Tuberculosis lymphadenitis
- a. Actinomycosis
- b. Syphilis
 - i. mucous patches
 - ii. gumma
 - iii. congenital syphilis
- d. Necrotizing Ulcerative Gingivitis
- e. Pericoronitis
- f. Acute Osteomyelitis
- g. Chronic Osteomyelitis
- h. Candidiasis
 - a. Pseudomembranous Candidiasis
 - b. Erythematous Candidiasis
 - c. Denture Stomatitis
 - d. Chronic Hyperplastic Candidiasis
 - e. Angular Cheilitis
 - f. Chronic mucocutaneous candidiasis
 - g. Median Rhomboid Glossitis
 - h. Mucormycosis
- i. Viral Infections
 - a. HPV
 - b. Verruca vulgaris
 - c. Condyloma acuminatum
 - d. Multifocal epithelia hyperplasia
 - e. Herpes Simplex Infection
 - f. Primary Herpetic gingivostomatitis
 - g. Recurrent herpes simplex infection
 - h. Varicella-zoster virus
 - i. Chicken pox
 - ii. Herpes Zoster
 - i. Epstein Barr Virus infection
 - i. Infectious mononucleosis
 - ii. Hairy Leukoplakia
 - j. Coxsackievirus infections
 - i. Herpangina
 - ii. Hand foot and mouth disease
 - iii. Acute lymphonodular pharyngitis
 - k. Other viral infections that may have oral manifestations
 - i. Measles
 - ii. Mumps
 - l. HIV

- i. The spectrum of human immunodeficiency virus
- ii. Diagnosing AIDS
- iii. HIV testing
- iv. Clinical manifestations
- v. Medical management
- vi. Oral manifestations
 - 1. Oral candidiasis
 - 2. Herpes simplex infection
 - 3. Herpes zoster
 - 4. Hairy leukoplakia
 - 5. HPV
 - 6. Kaposi sarcoma
 - 7. Lymphoma
 - 8. Gingival and periodontal disease
 - 9. Spontaneous gingival bleeding
 - 10. Aphthous ulcers
 - 11. Salivary gland disease

Chapter 5 Developmental Disorders

Objectives:

After studying this chapter, the student will be able to:

1. Describe embryonic development of the face oral cavity and teeth.
2. Define each of developmental anomalies.
3. Distinguish between intraosseous cysts and extraosseous cysts.
4. Name the four odontogenic cysts that are intraosseous.
5. Name the two odontogenic cysts that are extraosseous.
6. Define and identify each of the following anomalies affecting tooth eruption: impacted teeth, embedded teeth, and ankylosed teeth.
7. Identify the diagnostic process that contributes most significantly to the final diagnosis of each developmental anomaly discussed in this chapter.

Content:

- a. Embryonic Development of the face oral cavity and teeth
 - i. face
 - ii. oral and nasal cavities
 - iii. teeth
- b. Developmental soft tissue abnormalities
- c. Ankyloglossia
- d. Commissural lip pits
- e. Lingual thyroid
- f. Developmental Cysts
- g. Odontogenic cysts
- h. Eruption cysts
- i. Primordial Cysts

- j. Odontogenic keratocyst
- k. calcifying odontogenic cyst
- l. Lateral periodontal cyst, gingival cyst, and botryoid odontogenic cyst
- m. Glandular odontogenic cysts
- n. Nonodontogenic cysts
- o. Nasopalatine canal cyst
- p. Median palatine cyst
- q. Globulomaxillary cyst
- r. Median mandibular cyst
- s. Nasolabial cyst
- t. Lymphoepithelial cyst
- u. Epidermal cyst
- v. Dermoid cyst and benign
- w. Throglossal tract cyst
- x. Pseudocysts
- y. Static bonecyst
- z. Simple bone cyst
- aa. Aneurysmal bone cyst

Developmental abnormalities

- i. Abnormalities in the number of teeth
- ii. Anodontia
- iii. Hypodontia
- iv. Supernumerary teeth

Abnormalities in the size of the teeth

- i. Microdontia
- ii. Macrodontia

Abnormalities in the shape of teeth

- i. gemination
- ii. fusion
- iii. concrescence
- iv. dilacerations
- v. Enamel pearl
- vi. talon cusp
- vii. Taurodontism
- viii. Dens in Dente
- viiii. Dens Evaginatus
- X. supernumerary roots

Abnormalities of tooth structures

- a. Enamel hypoplasia
- b. Enamel Hypocalcification
- c. Endogenous staining of teeth
- d. Regional Odontodysplasia

Abnormalities of tooth eruption

- a. Impacted and embedded teeth
- b. Ankylosed teeth

Chapter 6 Genetics

After studying this the student will be able to

1. Explain what is meant by the Lyon hypothesis and give an example of its clinical significance.
2. State the inheritance pattern and describe the oral manifestations and if appropriate the characteristic facies for each of the following: cyclic neutropenia, Papillon-Lefevre syndrome mandibulofacial dysostosis, osteogenesis Peutz-Jeghers syndrome white sponge nevus, hypophosphatasia and hypophosphatemic vitamin D resistant rickets.
3. State the inheritance pattern, the oral or facial malignancy associated with each of the following syndromes: Gardner syndrome; nevoid basal cell carcinoma syndrome multiple mucosa neuromas, medullary carcinoma of the thyroid gland and pheochromocytoma syndrome and neurofibromatosis of von Recklinghausen.
4. State the location and malignant potential of the intestinal polyps in Peutz--Jeghers syndrome.
5. Briefly compare and contrast dentinogenesis imperfecta, amelogenesis imperfect, and dentin dysplasia, including the inheritance patterns, the clinical manifestations, and the radiographic appearance of each.

Content:

Chromosomes

- a. Genes
- b. Amino acids

Normal cell division

- a. Mitosis
- b. Mitotic cycle
- c. Stages of mitosis
- d. Meiosis
- e. First meiosis
- f. Second meiosis
- c. Lyon Hypothesis
 - a. Barr Body
 - b. Carriers
- d. Molecular composition of chromosomes
 - a. DNA
 - b. Nucleotide
 - c. Double helix
 - d. Codon
 - e. Mitochondrial DNA
 - f. Mitochondria
- e. Ribonucleic acid
 - a. Types of RNA

- b. Chromosomal abnormalities
- c. Gross Chromosomal abnormalities
- d. Patterns of inheritance
 - i. autosomal dominant inheritance
 - ii. autosomal recessive inheritance
 - iii. x-Linked inheritance
 - iv. genetic heterogeneity
 - v. multifactorial inheritance
 - vi. inherited disorders affecting the jaw bones and facies

Chapter 7 Neoplasia

After studying the student will be able to

Objectives:

1. Explain the difference between a benign tumor and an malignant tumor.
2. Define leukoplakia and erythroplakia
3. Describe the clinical and microscopic features of a calcifying odontogenic cyst, compare and contrast this lesion with an ameloblastoma.
4. Define neoplasms and describe the clinical features of each, explain how they are treated.
 - a. Description of neoplasia
 - b. Casues of neoplasia
 - c. Classification of tumors
 - d. Names of tumors
 - e. Treatment of tumors
 - f. Epithelial tumors
 - g. Tumors of squamous epithelium
 - i. Papilloma
 - ii. Premalignant lesions
 - iii. Squamous Cell Carcinoma
 - iv. Verruous Carcinoma
 - v. Basal cell carcinoma
 - i. Salivary gland tumors
 - i. Pleomorphic adenoma (benign mixed tumor)
 - ii. Monomorphic Adenomas
 - iii. Mucoepidermoid Carcinoma
 - iv. Adenoid Cystic carcinoma
 - v. Other malignant salivary gland tumors
 - h. Odontogenic tumors
 - i. epithelial odontogenic tumors
 - ii. Mesenchymal odontogenic tumors
 - iii. Mixed Odontogenic tumors
 - iv. Peripheral odontogenic tumors

- j. Tumors of soft tissue
- k. Tumors of melanin-producing cells
- l. Tumors of bone and cartilage
- m. Tumors of blood forming tissues
- n. Metastatic tumors of the jaws

Chapter 8 Nonneoplastic Diseases of Bone

After studying this chapter, the student will be able to:

1. Describe the clinical radiographic and microscopic features of periapical cemento-osseous dysplasia, focal cemento-osseous dysplasia and florid cemento-osseous dysplasia.
2. Compare and contrast monostotic fibrous dysplasia.
3. Compare and contrast the radiographic appearance microscopic appearance of fibrous dysplasia, polyostotic fibrous dysplasia central giant cell granuloma and aneurysmal bone cyst.

Content:

- a. Benign Fibro-ossious Lesions
 - i. periapical cemento osseous dysplasia
 - ii. Florid cemento osseous dysplasia
 - iii. focal cemento osseous dysplasia
 - iv. Fibrous dysplasia
- b. Paget disease of Bone
- c. Central giant cell granuloma
- d. Aneurysmal Bone cyst
- e. Osteomalacia

Chapter 9 Oral Manifestations of Systemic Diseases

After studying this material the student will be able to:

1. State the difference between gigantism, acromegaly, hyperthyroidism and hypothyroidism.
2. List the oral and systemic manifestations that occur in the uncontrolled diabetic state.
3. List the major clinical characteristics of type 1 and type 2 diabetes.
4. Define Addison disease and describe the changes that occur on the skin and oral mucosa.
5. Compare and contrast the cause, of iron deficiency, anemia, pernicious anemia, folic acid deficiency and vitamin B12 deficiency.
6. Compare and contrast the definitions and oral manifestations of thalassemia major and sickle cell anemia.
7. Define celiac disease.
8. Describe the difference between primary and secondary aplastic anemia.
9. Describe and contrast acute and chronic leukemia.
10. Describe the problems that would be expected to occur in a patient with radiation induced xerostomia.

11. Describe two drugs associated with osteonecrosis of the jaw.
12. Define hemophilia and its oral manifestations and treatment.
 - a. Endocrine disorders
 - i. Hyperpituitarism
 - ii. Hyperthyroidism
 - iii. Hypothyroidism
 - iv. Hyperthyroidism
 - v. Diabetes mellitus
 - vi. Addison Disease
 - b. Blood Disorders
 - i. Disorders of red blood cells and hemoglobin
 - ii. Disorders of white blood cells
 - iii. bleeding disorders
 - c. Immunodeficiency
 - i. Primary immunodeficiencies
 - ii. Secondary immunodeficiencies
 - d. Oral Manifestations of therapy for oral cancer
 - i. Radiation therapy
 - ii. chemotherapy
 - e. Effects of Drugs on the oral cavity

Chapter 10 Diseases Affecting the Temporomandibular joint

Objectives: After studying this chapter, the student will be able to:

1. State factors that have been implicated in the cause to temporomandibular disorder and question that would be appropriate to ask of a patient suspected of having a temporomandibular disorder.
2. List symptoms that are suggestive of temporomandibular dysfunction
3. List the types of TMD disorders
4. State the names of one benign tumor and one malignant tumor that may affect the temporomandibular joint area.

Content:

- a. Anatomy of the temporomandibular joint
- b. Normal joint function
- c. Temporomandibular disorders
- d. Treatment of temporomandibular joint disorders.
- e. Biochemical mediators of inflammation

Regeneration

Traumatic injuries to teeth
Injuries to Oral soft tissues
Reactive connective tissue hyperplasia
Inflammatory periapical lesions

, tissues and organs.

1. Discuss how the various tissues of the body build upon one another
2. Describe the components of specific organ systems such as the skin and its accessories, the digestive system, the respiratory system, the vascular system, the lymphatic system, the endocrine system, the urinary system, the reproductive system, and the special senses.
3. List general functions of each of these organ systems.

Content

Cells and tissues

- a. Epithelial tissue
- b. Neural tissue
- c. Connective tissue
 - Cartilage
 - Bone
 - Blood
 - Lymphocytes
- d. Muscle tissue

Organs and organ systems

- a. Integumentary or skin system
- b. Neural system
- c. Skeletal system
- d. Digestive system
- e. Respiratory system
- f. Vascular system
- g. Lymphatic system

- h. Muscular system
- i. Endocrine system
- j. Urinary system
- k. Reproductive system
- l. Special senses

Objectives: Development of the oral facial region

1. Discuss the development of the oral pharynx: the pharyngeal arches, including the pharyngeal pouches, and the neural and vascular components.
2. Describe the skeletal components and the development of the tissues of the face.

Content

Development of the oropharynx

Development of the pharyngeal arches

- a. Pharyngeal grooves and pharyngeal pouches
- b. Vascular development
- c. Muscular and neural development
- d. Cartilaginous skeletal development

Development of the craniofacial skeleton

- a. Cartilages of the face
- b. Bones of the face
- c. Sutures of the face

Objectives: Development of the face and palate

1. Describe prenatal facial development during the fourth to seventh weeks of gestation.

DHY 143 Oral Pathology final

Name _____

1. After arriving at a differential diagnosis, information from which one of the following categories will best establish a final or definitive diagnosis?

- A. Clinical
- B. Historical
- C. Microscopic
- D. Radiographic

2. The descriptive term that would best be used for a freckle is a:

- A. Bulla

- B. Vesicle
- C. Lobule
- D. Macule

3. Which one of the following terms describes the base of a lesion that is stalklike?

- A. Sessile
- B. Lobule
- C. Pedunculated
- D. Macule

4. Which one of the following conditions is considered a chronic inflammatory lesion?

- A. Necrotizing sialometaplasia
- B. Periapical granuloma
- C. Aphthous ulcer
- D. Aspirin burn

5. The directed movement of white blood cells to the area of injury is called:

- A. Pavementing
- B. Margination
- C. Chemotaxis
- D. Hyperemia

6. Which of the following cells are the most prevalent cells seen in chronic inflammation?

- A. Neutrophils
- B. Macrophages and lymphocytes
- C. Lymphocytes and plasma cells
- D. Neutrophils and lymphocytes

8. During the anaphylactic type of hypersensitivity reaction, the plasma cells

- A. Produce antibody called IgE
- B. React with lymphocytes
- C. Combine with antigen
- D. Form immune complexes with antigen

9. Which type of hypersensitivity reaction involves activated complement?

- A. Type I
- B. Cytotoxic
- C. Type III
- D. Anaphylactic

10. What type of lymphocyte matures in the thymus, produces lymphokines, and can increase or suppress humoral immunity?

- A. T-cell lymphocyte
- B. Plasma cell
- C. Natural killer cell

D. Macrophage

11. In the immune system, antibodies are proteins that are

- A. Also called immunoglobulins
- B. Also called cytokines
- C. Directly produced by lymphocytes
- D. Directly produced from mast cells

12. Which of the following types of immunologic disease involve a decreased number or activity of lymphoid cells?

- A. Autoimmune
- B. Hypersensitivity
- C. Immunodeficiency
- D. Reactive hyperplasia

13. Perioral lesions of impetigo may resemble:

- A. Syphilis
- B. Recurrent herpes simplex infection
- C. Herpes zoster
- D. Actinomycosis

14. Which of the following is not associated with group A, β -hemolytic streptococcal infection?

- A. Tonsillitis
- B. Syphilis
- C. Scarlet fever
- D. Rheumatic fever

15. Oral candidiasis is caused by a:

- A. Bacterium
- B. Yeastlike fungus
- C. Spirochete
- D. Protozoan

16. Which statement is false?

- A. Angular cheilitis may be caused by *Candida albicans*.
- B. White lesions resulting from candidiasis may not rub off the mucosal surface.
- C. Erythematous candidiasis is usually completely asymptomatic.
- D. Denture stomatitis may be a form of oral candidiasis.

17. Which tooth is the most common supernumerary tooth?

- A. Mesiodens
- B. Distomolar
- C. Paramolar
- D. Hutchinson incisor

18. Which teeth most often appear smaller than normal?
- A. Mandibular premolars
 - B. Maxillary lateral incisors
 - C. Mandibular lateral incisors
 - D. Mandibular third molars
19. Which term refers to the developmental anomaly that arises when a single tooth germ attempts to divide and results in the incomplete formation of two teeth?
- A. Fusion
 - B. Gemination
 - C. Concrescence
 - D. Dilaceration
20. Which term refers to the developmental anomaly that arises from the union of two normally separated adjacent tooth germs?
- A. Twinning
 - B. Gemination
 - C. Fusion
 - D. Dilaceration
21. Barr bodies are seen at the:
- A. Nuclear periphery of all human cells
 - B. Periphery of the cytoplasm in all human cells
 - C. Nuclear periphery of cells in women
 - D. Periphery of the cytoplasm in all cells from women
22. The karyotype of a patient with Turner syndrome shows:
- A. 44 autosomes and XYY
 - B. 43 autosomes and XYY
 - C. 44 autosomes and XXY
 - D. 44 autosomes and XO
23. Hypothetically, an autosomal-dominant trait would be clinically present in:
- A. 50% of the offspring of an affected parent
 - B. 75% of the offspring of an affected parent
 - C. 25% of the offspring of an affected parent
 - D. Only in males, never in female offspring
24. Patients with an X-linked hereditary condition:
- A. Are always men
 - B. Are generally affected more severely if they are men
 - C. Are always women
 - D. Have cells with many Barr bodies
25. Which one of the following is associated with cyclic neutropenia?

- A. Premature loss of primary teeth
- B. Diminished number of circulating neutrophils
- C. Exfoliating teeth because of short roots
- D. Chipping away of enamel

26. A small white exophytic lesion on the palate is a benign lesion composed of squamous epithelium. Papillary projections are arranged in a cauliflower-like appearance. It is most likely a:

- A. Peripheral ossifying fibroma
- B. Neurofibroma
- C. Granular cell tumor
- D. Papilloma

27. Which of the following is not a microscopic characteristic of squamous cell carcinoma?

- A. Invasion of tumor cells into the connective tissue
- B. Cells with very small nuclei
- C. Cells with hyperchromatic nuclei
- D. Keratin pearls

28. Which of the following are the most common locations for intraoral squamous cell carcinoma?

- A. Upper labial mucosa, frenum, and lingual gingiva
- B. Lower labial mucosa, maxillary gingiva, and buccal mucosa
- C. Floor of the mouth, ventrolateral tongue, and soft palate
- D. Anterior tongue, mandibular gingiva, and retromolar area

29. A patient with squamous cell carcinoma of the lateral tongue exhibits metastatic disease in the liver. What clinical stage correlates with these findings?

- A. Stage I
- B. Stage II
- C. Stage III
- D. Stage IV

30. Which of the following represents the earliest clinical example of squamous cell carcinoma?

- A. Nonhealing ulceration
- B. Exophytic lesion
- C. Pigmented area
- D. Destructive radiolucency

31. The most appropriate treatment for epithelial dysplasia is:

- A. Radiation therapy
- B. Chemotherapy
- C. Surgical excision
- D. Observation

32. Periapical cemento-osseous dysplasia is located in the:
- A. Posterior mandible
 - B. Posterior maxilla
 - C. Craniofacial bones
 - D. Anterior mandible
33. Periapical cemento-osseous dysplasia has also been known as a(n):
- A. Cementoma
 - B. Odontoma
 - C. Cementoblastoma
 - D. Fibrous dysplasia
34. Which of the following diseases is associated with café-au-lait spots?
- A. Polyostotic fibrous dysplasia
 - B. Paget disease
 - C. Monostotic fibrous dysplasia
 - D. Periapical cemento-osseous dysplasia
35. What is the name of the type of fibrous dysplasia that involves the maxilla and adjacent bones?
- A. Periapical
 - B. Jaffe
 - C. Craniofacial
 - D. Monostotic
36. Which one of the following is not a feature of Paget disease?
- A. Deposition of amorphous material
 - B. Resorption and osteoblastic repair
 - C. Chronic metabolic bone disease
 - D. Hypercementosis
37. Which of the following is typically an acute metabolic complication of uncontrolled diabetes mellitus?
- A. Eye damage
 - B. Ketoacidosis
 - C. Atherosclerosis
 - D. End-stage kidney failure
38. Polydipsia, polyuria, and polyphagia are all characteristic of which of the following?
- A. Hyperparathyroidism
 - B. Hyperthyroidism
 - C. Type 1 diabetes mellitus
 - D. Addison disease

39. Which of the following is not a feature of type 2 diabetes mellitus?
- A. Those with it have increased insulin resistance.
 - B. It typically occurs at 40 years of age or older.
 - C. Autoimmunity is the key to its development.
 - D. Glucose control can be achieved without daily insulin injections in many cases.
40. Which of the following oral complications is not typically associated with diabetes mellitus?
- A. Candidiasis
 - B. Xerostomia
 - C. Excessive periodontal bone loss
 - D. Multilocular radiolucencies with pathologic fracture
41. Which one of the following is false concerning Addison disease?
- A. It is also known as primary adrenal cortical insufficiency.
 - B. There may be bronzing of the skin.
 - C. It may be caused by a malignant tumor that destroys the adrenal gland.
 - D. The patient may experience pathologic fracture.
42. Which of the following statements is false regarding diabetes mellitus?
- A. Candidiasis may be indicative of compromised immunity in a patient with diabetes.
 - B. Hypoglycemic agents are more commonly used in the treatment of type 2 diabetes than in type 1 diabetes.
 - C. Microvascular disease typically affects eyes, kidneys, and nerves.
 - D. Diabetes mellitus is not considered a syndrome.
43. Which of the following statements is false?
- A. Primary immunodeficiencies are less common than secondary immunodeficiencies.
 - B. Persons with T-lymphocyte deficiencies are susceptible to viral and fungal infections.
 - C. All primary immunodeficiencies are combined B-lymphocyte and T-lymphocyte deficiencies.
 - D. Secondary immunodeficiency can result from corticosteroid medication.
44. Which of the following is not a form of surgical treatment used for temporomandibular joint disorders?
- A. Arthrocentesis
 - B. Condylotomy
 - C. Joint reconstruction
 - D. Occlusal appliance
45. Which of the following is the most common benign tumor of the synovium of the temporomandibular joint?
- A. Osteblastoma
 - B. Osteochondroma
 - C. Chondroblastoma
 - D. Synovial chondromatosis

46. Which of the following diagnostic modalities should be used for patients suspected of osteoarthritis of the temporomandibular joint?
- A. Cone-beam computed tomography
 - B. Magnetic resonance tomography
 - C. Local anesthesia injected into the joint
 - D. Arthrography
47. Which of the following muscles cannot be palpated on clinical examination?
- A. Medial pterygoid
 - B. Lateral pterygoid
 - C. Masseter
 - D. Temporalis
48. The primary goals for management of temporomandibular disorders include all of the following except:
- A. Improving oral function
 - B. Reducing pain
 - C. Preventing further joint damage
 - D. Improving oral health
49. Which management would you recommend to a patient who complains of chronic subluxation?
- A. Arthrocentesis
 - B. Eminectomy
 - C. Appliance therapy
 - D. Nonsteroidal antiinflammatory drugs (NSAIDs)
50. How may dental hygiene management be modified for a patient with myofascial pain and dysfunction?
- A. Shorter appointments
 - B. Jaw exercises before and after the appointment
 - C. Pain management with nitrous oxide analgesia
 - D. All of the above

DHY 154 Dental Emergency Management

Fall 2016

Instructor Contact Information

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Course Description

(Credits: 1) This course is designed to prepared students to recognize and respond to an emergency in the dental office.

Prerequisites

Required: DHY 176 Clinical Procedures

Required Textbooks

Darby, M. & Walsh,M. (2015). *Dental hygiene theory and practice, 4th edition*. Saint Louis; Elsevier chapters 10 & 13

Basic Life Support for Health Care Providers American Heart Association

Course Focus

The focus of this course is on the instruction of medical emergencies, emergency flow chart and prevention of the emergency. Theories, practice models, assessments are applied.

Course Goals/Student Learning outcomes

1. Predict, prevent recognize and manage medical emergency in the dental office.
2. Identify the signs and symptoms of presyncope and syncope.
3. Compare and contrast the American Society of Anesthesiologists (ASA) classification.
4. To demonstrate resuscitative techniques at various levels of need.
5. Initiating EMS system and to demonstrate assistance in a medical emergency recording vitals, assembling personal data for transfer of care.
6. Demonstrate on a real or simulated adult, infant or child experiencing a respiratory or cardiac arrest, the proper technique and procedures of the one rescuer emergency intervention consistent with the current American Heart Association standards.
7. Demonstrate on a real or simulated adult, infant or child experiencing a complete or partial airway obstruction the proper technique, and procedures consistent with the current American Heart Association standards.
8. Demonstrate on a real or simulated adult patient and the required equipment, the student will ventilate a patient using a pocket mask. Performance will be acceptable if rate and volume meet AHA standards an adequate chest expansion occurs.
9. Demonstrate on a real or simulated adult or child suffering from cardiac arrest the proper two rescuer technique and procedural steps consistent with the most recent American Heart Association standards.
10. Demonstrate on a real or simulated adult or child suffering from cardiac arrest the proper technique and procedure; correctly use an automated external defibrillator consistent with the most recent American Heart Association standards.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, group exercises and discussions.

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 154 syllabi Discussion Chapter 10		1,2,3,4
2	Week 1 discussion chapter 10	Emergency procedures in clinic, emergency kit, emergency flow chart	1,2,3,4,5

3	Quiz 1 chapter 10 Emergency prevention	Quiz 1	1,2,3,4,5
4	Emergency scenarios/discussion Allergic reaction/choking	Discuss/demo Epi pen assembly and administration Heimlich maneuver, child chest compressions, pregnancy adaptations	1,2,3,4,5
5	Emergency scenarios/discussion Respiratory/asthma	Discuss/demo Positioning client upright introduce oxygen, inhaler use, removal of allergen Respiratory emergency scenario assessment	1,2,3,4,5
6	Basic life support CPR	Quiz 2 Infant CPR Child CPR demo, practice and assessment	6,7,8,9
7	Basic life support CPR	Two rescuer CPR	6,7,8,9,
8	Basic life support CPR	Emergency project Two rescuer CPR	6,7,8,9
9	Basic life support CPR	Individual rescuer adult CPR	6,7,8,9
10	Basic life support AED	AED demo/practice and assessment on adult manikin	6,7,8,9,10
11	Basic life support AED	AED assessment on adult manikin	6,7,8,9,10
12	Review for CPR exam	Final exam	1,2,3,4,5,6, 7,8,9,10
12			

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class you must call and let me know.

Course Points	quiz 1	50
	quiz 2	50
	Emergency project	100
	<u>Final exam</u>	<u>200</u>
	Total	400

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and

well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Medical Emergencies

Objectives:

Upon completion of this unit, the student will be able to:

1. Discuss prevention of medical emergencies, including how to recognize persons at high risk for a medical emergency.
2. Delineate protocols for performing Basic Life Support in adults, children, and infants.
3. Discuss cardiac arrest and the protocol for management of the situation.
4. Describe protocol's for managing victims with mild (partial) airway obstruction and severe (complete) airway obstruction.
5. Discuss the administration of oxygen.
6. Discuss appropriate use of equipment and drugs included in a medical emergency kit.
7. Identify signs and symptoms of specific medical emergencies and appropriate treatment for each.

Content:

- a. Preventing Medical Emergencies
 - i. Office personnel and Environment preparation
 - ii. Client assessment
 - iii. Anxiety recognition and management
 - iv. Stress reduction protocols
 - v. Recognition of unresponsiveness
- b. Basic Life Support
 - i. Recognition of unresponsiveness
 - ii. Terminate dental hygiene care, summon assistance and position client.
 - iii. Rescue breathing and bag mask ventilation
- c. Cardiac Arrest
 - i. The Hearts Electrical system
 - ii. Effective emergency response
 - iii. Early Recognition and Cardiopulmonary Resuscitation
 - iv. Use of an Automated External Defibrillator.
- d. Obstructed Airway
- e. Oxygen Administration

- f. Basic Dental Emergency Kit
- g. Management of specific medical emergencies
- h. Client education tips
- i. Legal, ethical, and safety issues

**BLS for Healthcare Providers Course
Version A**

Please do not mark on this examination. Record the best answer on the separate answer sheet.

1. **What is the rate for performing chest compressions for a victim of any age?**
 - A. 30 compressions per minute
 - B. 50 compressions per minute
 - C. 80 compressions per minute
 - D. 100 compressions per minute

2. **Which of the following describes a way you can allow the chest to recoil completely after each chest compression?**
 - A. Keep the chest pushed down approximately ½ to 1 inch between compressions
 - B. Keep your weight on the victim's chest so the chest is slightly compressed at all times.
 - C. Compress the chest shallowly with each compression so you don't have to release too far
 - D. Take your weight off your hands and allow the chest to come back to its normal position

3. **When you do not suspect cervical spine injury, what is the best way to open an unresponsive victim's airway?**
 - A. Give abdominal thrusts and then sweep out the mouth
 - B. Use the head tilt–chin lift
 - C. Use the tongue lift–finger sweep
 - D. Use a mask while giving breaths to the victim

4. **After you open the airway and pinch the nose of an unresponsive adult or child, which of the following describes the best way to give mouth-to-mouth breaths?**
 - A. Seal your mouth over the victim's mouth and give 2 breaths, watching for chest rise
 - B. Put your mouth on the victim's mouth and give small puffs. Try to avoid making the chest rise.
 - C. Put your mouth on the victim's mouth and give 1 slow breath over about 5 seconds
 - D. Put your mouth on the victim's mouth and give 5 slow breaths over about 2 seconds each, watching for chest rise

5. **What is the best way for a rescuer to know that a rescue breath for an infant victim is effective?**
 - A. The stomach rises visibly
 - B. The chest rises visibly
 - C. An adult ventilation bag is completely compressed
 - D. The rescuer can hear an air leak around the mask

-
6. **You must check adequate breathing before giving breaths to an unresponsive adult victim. You do this by looking for chest rise and feeling for airflow through the victim's nose or mouth. What other sign should you assess?**
- A. Look into the victim's mouth to see if anything is blocking the airway
 - B. Count the victim's breaths for at least 15 seconds
 - C. Look carefully for gasps because they are signs of adequate breathing
 - D. Listen for airflow from the victim's nose or mouth
7. **What would be the next step when you find an unresponsive victim who has agonal gasps and you have sent someone to activate the emergency response system?**
- A. Open the airway and give 2 breaths
 - B. Open the victim's mouth and look for a foreign object
 - C. Check the victim's pulse
 - D. Give rescue breaths for at least 2 minutes before starting chest compressions
8. **How do you know when to start cycles of chest compressions with breaths for an adult?**
- A. The victim has a pulse but is having trouble breathing
 - B. The victim is responsive but is complaining of chest pains and indigestion
 - C. The victim is unresponsive, is not breathing, and does not have a pulse
 - D. The victim is unresponsive but is breathing adequately
9. **Which of the following best describes how you and a second rescuer can give CPR to an infant victim together using the 2-thumbs encircling hands technique?**
- A. You continue giving cycles of 30 compressions and 2 breaths while the second rescuer waits 2 minutes for his turn
 - B. You switch to cycles of 15 compressions and 2 breaths with one rescuer giving chest compressions and the other giving breaths
 - C. You stop giving CPR while the second rescuer checks the victim's pulse, then you continue with cycles of 30 compressions and 2 breaths
 - D. You stop giving CPR and wait for advanced care specialists to arrive and take over
10. **Which of the following statements tells why it is important to give early defibrillation to an adult?**
- A. The most frequent initial rhythm in witnessed sudden cardiac arrest is atrial fibrillation
 - B. The most effective treatment for sudden cardiac arrest is synchronized cardioversion
 - C. The probability of successful defibrillation diminishes rapidly over time
 - D. Ventricular fibrillation is an uncommon cause of sudden cardiac arrest in adults

11. Which of the following best describes the steps common to the operation of all AEDs in the correct order?

- A. Power on the AED, attach pads, clear the victim and allow the AED to analyze the rhythm, clear the victim and deliver shock, if advised
- B. Power on the AED, shave the victim's chest, attach pads, clear the victim and press the SHOCK button
- C. Power on the AED, attach pads, press the SHOCK button, clear the victim
- D. Power on the AED and press the SHOCK button immediately

12. After you power on an AED and attach the pads to the victim, what is the next step you should do?

- A. Clear the victim so the AED can analyze the heart rhythm
- B. Press the SHOCK button immediately
- C. Clear the victim and press the SHOCK button
- D. Give another cycle of CPR before pressing the analyze button

13. What might happen if you touch the victim while the AED is delivering a shock?

- A. The AED will power off if you touch the victim while it is shocking
- B. You might move the victim, which may cause the AED to reanalyze the victim's rhythm
- C. The AED could shock you while it is shocking the victim
- D. The AED might mistake your movement for the victim's pulse and not deliver a shock

14. You are using an AED on an adult victim, and the AED gives a "no shock indicated" (or "no shock advised") message. Until advanced care personnel arrive, what should you do next?

- A. Remove the pads from the victim's chest and wait for advanced care personnel to arrive
- B. Remove the pads from the victim's chest and continue CPR
- C. Leave the pads on the victim's chest and continue CPR beginning with compressions
- D. Give the victim breaths without compressions

15. What is the best way to relieve severe choking in a responsive adult?

- A. Perform abdominal thrusts
- B. Start CPR immediately
- C. Give 5 back slaps, followed by 2 breaths
- D. Give 2 breaths, repositioning the airway after each breath

- 16. A choking adult becomes unresponsive while you are doing abdominal thrusts for severe choking. You ease the victim to the floor and send someone to activate your emergency response system. What should you do next?**
- A. Perform a tongue-jaw lift and finger sweep for at least 2 minutes
 - B. Begin CPR. When you open the airway, look for and remove the object (if seen) before giving rescue breaths
 - C. Continue the Heimlich maneuver until the object comes out of the victim's airway then begin the steps of CPR
 - D. Give chest thrusts for 2 minutes, then begin CPR
- 17. You are alone and you find an infant who is not responsive. You begin the steps of CPR. When should you activate your emergency response system?**
- A. As soon as you find the child
 - B. After you give 5 cycles of CPR
 - C. After you check the infant's pulse
 - D. After you open the airway, check breathing, and give 2 effective breaths
- 18. What is the best action to relieve severe choking in a responsive infant?**
- A. Kneel behind the infant and perform abdominal thrusts (perform the Heimlich maneuver)
 - B. Begin cycles of 5 back slaps, followed by 5 chest thrusts
 - C. Give 2 breaths, repositioning the airway after each breath
 - D. Start CPR immediately
- 19. Which of the following statements best describes why you should minimize interruptions when giving chest compressions to any victim of cardiac arrest?**
- A. You do not need to worry about interrupting chest compressions
 - B. Minimizing interruptions means you will not be as tired giving CPR
 - C. Only advanced care professionals need to worry about minimizing interruptions
 - D. If you minimize interruptions in chest compressions, you will increase the victim's chances of survival
- 20. Which of the following statements is true when choosing AED pads or an AED system for an adult victim?**
- A. Use only the adult AED pads and system
 - B. You can use the child pads and child system as long as you apply both pads to the victim's chest
 - C. You can use the child pads and child system as long as you apply both pads to the victim's back
 - D. You can use one adult pad and one child pad

DHY 185 Clinical Procedures

Fall 2016

Instructor Contact Information

Jody Williams

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Course Description

(Credits: 3) This course will provide necessary instruction and supervised practice in advanced dental hygiene instrumentation. Students will acquire advanced skills in developing treatment plans for advanced cases. Clinical session in the laboratory setting would require students to demonstrate competency in utilizing dental hygiene instrument, detection and removal of subgingival deposits, ultrasonic scaling and air polishers. Competency is achieved on manikins and peers.

Prerequisites

Required: DHY 176 Clinical Procedures

Required Textbooks

Darby, M. & Walsh, M. (2015). *Dental hygiene theory and practice, 4th edition*. Elsevier: Saint Louis

Dental Hygiene Clinical Assessments and Competencies.

Indian Hills Community College Dental Hygiene Clinic and Procedural Manual

Course Focus

The focus of this course is on the application of dental hygiene practices in assessment, intervention and treatment planning.

Course Goals/ Student Learning Outcomes

1. Provide treatment consideration for the special needs patient.
2. Provide palliative care for patients undergoing cancer therapy.
3. Understand and provide dental care for the developmentally and cognitively challenged.
4. Implement the selective polishing concept.
5. Appropriately apply topical fluoride agents.
6. Identify signs and symptoms of common dental office emergencies and the procedures to follow in the event that each occurs.
7. Utilize appropriately power scaling, manual scaling instruments.
8. Utilize a manual oral irrigation device.
9. Identify the need for instrument sharpening and demonstrate the sharpening technique.
10. Implement the selective polishing concept.
11. Appropriately apply topical fluoride agents.
12. Identify signs and symptoms of common dental office emergencies and the procedures to follow in the event that each occurs.
13. Utilize appropriately power scaling, manual scaling instruments.
14. Utilize a manual oral irrigation device.
15. Identify the need for instrument sharpening and demonstrate the sharpening technique.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

Week	Topic	Quiz/Tests/	Goal #
1	Introduction to DHY 185 clinical procedures syllabi Discussion chapter 42 Persons with disabilities	Demo on manual scalers Lab practice on typodonts	1,2
2	Discussion Chapter 51 developmentally and	Quiz 1 chapter 42 Lab assessment manual Instrumentation sickle	1,2,3,4

	cognitively challenged	scaler on typodont	
3	Discussion chapters 52 alcohol and substance abuse problems	Quiz 2 chapter 51 Lab manual instrumentation curettes Irrigation	1,2,3,4,5
4	Discussion chapters 55 Individuals with special needs/geriatric	Quiz 3 chapter 52 Lab assessment scaling intra oral on peers	1,2,3,4,5,
5	Discussion Chapters 31, 45 oral considerations for Cancer therapy patients	Quiz 4 chapter 55 Lab assessment scaling intra oral, demo on cup polishing fluoride application	6,7,12,16,17
6	Midterm test chapters 31,42, 45 51-55	Mid term test 100pts Lab quiz manual instrumentation intra oral Cup polishing	1,2,3,4,5,6,7, 14,15
7	Discussion chapters	Quiz 5 chapters 51-52 Demo/Lab assessment Instrument sharpening oral irrigation	9,10,17,18,
8	Discussion chapters 55-56	Quiz 6 chapters 53-54 Lab assessment Fluoride application demo	9,10,14,15
9	Discussion chapters 57-58	Quiz 7 Chapters 55-56 Emergency procedures Wheel chair transfer/aiding the handicapped	17,18,19
10	Week 9 Quiz Discussion chapters 59-60	Quiz 8 Chapters 57-58 Emergency procedures	
11	Review for final	Lab Prophylaxis on clinic partner	1,2,3,4,5, 6,7,8,9

12	Final Exam	Lab Prophylaxis on clinic partner	1,2,3,4,5,6,7,8,9,
12	Final Exam	100 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time. Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.
If you are sick and not going to be in class or lab you must call and let me know.

Course Points

8-Quizzes total	400points
1-Midterm total	100points
1-Final total	100points
<u>1-research paper</u>	<u>100points</u>
	700points

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84

D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

The research topic for DHY 185

Persons with disabilities- select a specific disability

Two page (body) paper, double spaced

Include:

Title page, name, date, type of disability

References

Type of disability and limitations (if any)

Assess the type of care client is needing (home assistance, home health aid, personal hygiene care)

Determine modifications for dental visits

Determine modifications for home dental care

Name: _____

Research Paper Rubric

	4	3	2	1
Content and Focus	<ul style="list-style-type: none"> ▪ Exceptionally clear, focused, interesting thesis. ▪ Strong, rich supporting details and examples that prove thesis. ▪ A meaningful conclusion explaining the importance of the research and how it can be used. 	<ul style="list-style-type: none"> ▪ Clear thesis which maintains a consistent focus from beginning to end. ▪ Specific supporting details are present. ▪ A clear conclusion as to why the research is important. 	<ul style="list-style-type: none"> ▪ Contains thesis but with inconsistent focus. ▪ Generalized supporting details that prove thesis. ▪ Conclusion tends to summarize research. 	<ul style="list-style-type: none"> ▪ Thesis statement lacks clarity and focus. ▪ Inadequate or missing supporting details. ▪ Missing a summarizing conclusion
Organization	<ul style="list-style-type: none"> ▪ Strong introduction and conclusion. ▪ Consistent and coherent logical progression. ▪ Uses clear and skillful transitions. 	<ul style="list-style-type: none"> ▪ Clear introduction and conclusion. ▪ Illustrates some consistency and shows some logical progression. ▪ Uses clear transitions. 	<ul style="list-style-type: none"> ▪ Introduction and conclusion is present but not clear ▪ Show some attempt of consistency and order. Paper shows attempt of transitions between paragraphs. 	<ul style="list-style-type: none"> ▪ Unable to clearly identify introduction and conclusion. ▪ Lack of consistency and order. ▪ Paper shows little or no attempt of transitions between paragraphs.
Style	<ul style="list-style-type: none"> ▪ Written in formal language (avoids slang completely). ▪ Elaborate and colorful language. ▪ Consistently strong and varied sentence structure. ▪ Direct quotes support student's ideas. ▪ Paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Majority of paper written in formal language. ▪ Language appropriate to topic. ▪ Words convey intended message. ▪ Direct quotes support student's ideas. ▪ Majority of paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Some use of formal language recognized; informal language is dominant. ▪ Most language is appropriate to topic. ▪ Able to get vague idea of message. ▪ Some parts of paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Paper frequently uses informal language. ▪ Language is not appropriate to topic. ▪ Message is unclear. ▪ Majority of paper is plagiarized.
Sources/Format	<p>Follows MLA guidelines:</p> <ul style="list-style-type: none"> ▪ Uses 5 or more cited sources. ▪ Sources meet the guidelines for types of sources. ▪ All parenthetical documentation is MLA correct (author's name, pg. #). ▪ Works Cited page is MLA correct. ▪ All researched info is documented. 	<p>Follows MLA Guidelines with few exceptions:</p> <ul style="list-style-type: none"> ▪ 3-4 cited sources used. ▪ Sources meet the guidelines for types of sources. ▪ Few errors noted in parenthetical documentation ▪ Majority of Works Cited page is MLA correct. ▪ Most research info is Documented. 	<ul style="list-style-type: none"> ▪ Inconsistent use of MLA style guidelines. ▪ Less than 3 cited sources used. ▪ Majority of parenthetical documentation done incorrectly. ▪ Random MLA documentation. ▪ Rarely documents sources. 	<ul style="list-style-type: none"> ▪ Fails to follow MLA style Guidelines. ▪ Less than 3 cited sources used little or no parenthetical documentation. ▪ Works Cited page is not understandable.
Conventions	<p>Superior editing. Rarely makes errors in the following areas:</p> <ul style="list-style-type: none"> ▪ Spelling and mechanics. ▪ Correct usage and grammar. 	<p>Careful editing. Makes few errors in the following areas:</p> <ul style="list-style-type: none"> ▪ Spelling and mechanics ▪ Correct usage and grammar 	<p>Some evidence of editing:</p> <ul style="list-style-type: none"> ▪ Extensive spelling and grammatical errors. 	<p>Poor editing:</p> <ul style="list-style-type: none"> ▪ Spelling and grammatical errors make it difficult to read paper.

Score: _____ / 4

Evaluated by: _____ Date: _____

**DHY 185
QUIZ A
JWilliams**

NAME _____
DATE _____

1. When debriding (scaling)the cementum, it may be more difficult than on enamel because
 - a. the calculus imbeds into the cementum
 - b. the calculus is more tenacious
 - c. it may be subgingival

- d. all of the above
2. The term jacquette refers to a (an)
 - a. a scaler
 - b. a curette
 3. If your instrument cutting edge does not seem to bite into the surface being instrumented, it may be
 - a. dull
 - b. angled incorrectly
 - c. the wrong instrument for the task
 - d. all of the above
 4. Detoxifying(root planing) is a shaving process in which layers are removed.
 - a. True
 - b. False
 5. The first instrument choice for removing a moderate size of calculus just under the contact of a molar when the tissue is tight would be
 - a. Barnhart 5/6
 - b. YG 7/8
 - c. NEVI 2
 - d. H 6/7
 6. The angle range for debriding or detoxifying is
 - a. 45-90 degrees
 - b. 80-90 degrees
 - c. 45-60 degrees
 - d. none of the above
 7. Coincidental curettage is done intentionally to promote healing.
 - a. True
 - b. False
 8. The wristrock's exploratory stroke creates the insertion angle which
 - a. closes the face toward the tooth
 - b. is a 45 degree angle to the tooth

- c. opens the angle to 90 degrees
 - d. keeps the lower shank parallel with the surface being instrumented.
9. Irrigating the sulci or pockets with an antimicrobial following instrumentation
- a. kills remaining organisms
 - b. promotes healing
 - c. creates a flushing action in the area
 - d. all of the above
10. The strokes for debridement (scaling) of tenacious calculus should be _____ mm in length with _____ or _____ lateral pressure.
11. The strokes for detoxifying (root planing) subgingivally should be _____ mm in length with _____ lateral pressure to begin, and end with _____ lateral pressure.
12. The optimum angle of the instrument face to the tooth surface for scaling is between 45 and 60 degrees. The optimum angle for root planing is 70 to 80 degrees.
- a. both statements are TRUE
 - b. both statements are FALSE
 - c. first statement is TRUE; the second is FALSE
 - d. first statement is FALSE; the second is TRUE
13. The design characteristic of a universal curette which makes it more versatile than an area specific curette is
- a. having two cutting edges converging with a point
 - b. having an upper and lower cutting edge
 - c. the lower shank at 90 degrees to the face of the instrument
 - d. having multiple angles in the shank
 - e. all of the above
14. A sickle has **(circle all that apply)**
- a. a pointed tip
 - b. a rounded toe
 - c. two cutting edges
 - d. one continuous cutting edge
15. In cross section, the working end of a curette is:

- a. spoon shaped
 - b. perpendicular
 - c. square
 - d. triangular
 - e. parallel
16. The more simple the shank, the more anterior it's use.
- a. True
 - b. False
17. If you are using dull instruments for debriding or detoxifying, you may cause
- a. burnished calculus
 - b. incomplete calculus removal
 - c. undue tissue trauma from repeated strokes
 - d. clinician hand fatigue
 - e. all of the above
18. It is possible to explore an area being instrumented with your scaling or root planing instrument by:
- a. alternating it with an explorer
 - b. using moderate pressure
 - c. using light pressure on the working stroke
 - d. changing the angle of the blade
19. The most effective and versatile instrument for detoxifying is the
- a. curette
 - b. sickle
 - c. explorer
 - d. file
20. Condition (s) that dictate (s) the selection of blade size is/are
- a. pocket depth
 - b. amount of calculus
 - c. accessibility
 - d. all of the above
 - e. b and c
21. The debridement stroke for the removal of a heavy ledge of tenacious calculus should have
- a. heavy pressure with a push stroke
 - b. firm lateral pressure at more than 90 degree angulation

- c. moderate lateral pressure at 45 degree angulation
- d. firm lateral pressure at just less than 90 degrees angulation
- e. variable lateral pressure dependent upon the surface being instrumentated

22. When debriding and detoxifying, the exploratory stroke is used

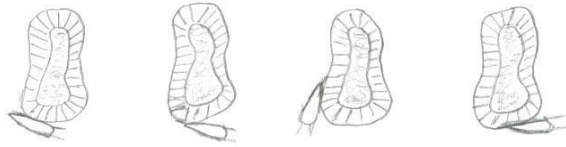
- a. intermittently
- b. after a section or area is instrumentated
- c. exclusively
- d. very seldom

23. Which of the following statements describe the working stroke during debridement?

- 1. The handle is grasped lightly
- 2. The handle is grasped firmly
- 3. Light lateral pressure is used
- 4. Firm lateral pressure is used
- 5. Short strokes are used
- 6. Long strokes are used

- e. 1, 3, and 5
- f. 2, 4, and 5
- g. 2, 3, and 6
- h. 1, 4, and 5
- i. 1, 3, and 6

24. Which drawing below shows **incorrect** blade adaptation caused by failure to roll the instrument at the line angle?



a.

b.

c.

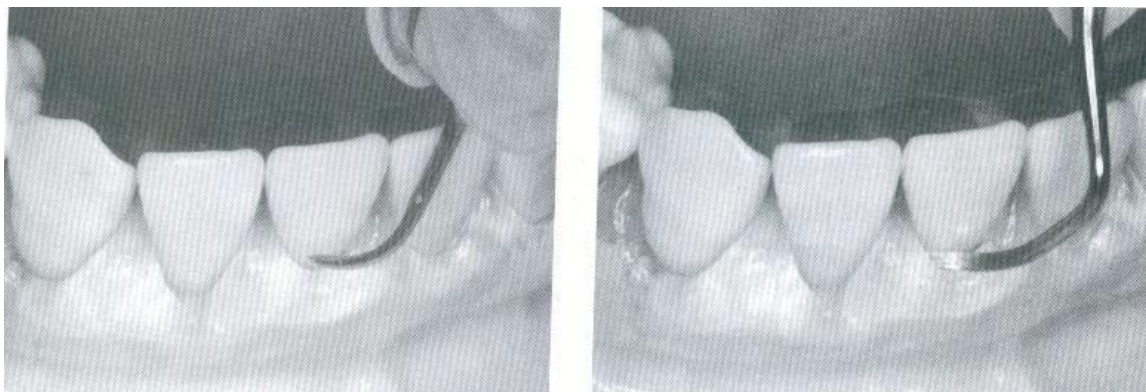
d.

25. Failure to roll the instrument as shown above in Question #24, would probably result in

- a. gouging of the root
- b. undue pain and bleeding
- c. loss of patient confidence
- d. all of the above
- e. b and c

x-tra credit: 4 points total

Circle the picture that shows correct technique:



Circle the picture that shows correct technique



**DHY 185 Dental
Hygiene Clinic
Assessment
Manual
Schedule of Events
Lab**

Week one	Week two
<ul style="list-style-type: none"> • Discuss CAS • Demo on manual scalers • Lab practice on typodonts • Demonstration of oral irrigation manual & with power scalers 	<ul style="list-style-type: none"> • Lab practice with scalers on typodonts • Lab assessment with manual oral irrigation
Week three Quiz on scaling & irrigation Typodont practice & assessment	Week four Lab assessment – intra-oral scaling Demo on cup polishing and fluoride application Lab practice on typodonts
<ul style="list-style-type: none"> • Lab assessment – scaling intra-oral 	
Week five	Week six
<ul style="list-style-type: none"> • Lab assessment – cup polishing & fluoride application • Demo/discussion on emergency procedures & practice • Demo on instrument sharpening 	<p>Quiz on cup polishing & fluoride application</p> <ul style="list-style-type: none"> • Lab assessment – cup polishing & fluoride application • Lab assessment – emergency procedures • Practice sharpening
Week seven	Week eight
<ul style="list-style-type: none"> • Lab assessment – emergency procedures • Lab assessment -- instrument sharpening 	<ul style="list-style-type: none"> • Quiz on instrument sharpening & emergency procedures Practice anything from DHY 176 and DHY 185 that you want to review or need to complete the assessment

<p>Week nine</p> <p>Discuss CAS Demo on manual scalers Lab practice on typodonts Demonstration of oral irrigation manual & with power scalers</p>	<p>Week ten</p> <p>Lab practice with scalers on typodonts Lab assessment with manual oral irrigation</p>
<p>Week eleven</p> <p>Quiz on scaling & irrigation Typodont practice & assessment</p> <ul style="list-style-type: none"> • Lab assessment – scaling intra-oral 	<p>Week twelve</p> <p>Lab assessment – intra-oral scaling Demo on cup polishing and fluoride application Lab practice on typodonts</p>
<p>Week twelve</p> <ul style="list-style-type: none"> • Lab assessment – cup polishing & fluoride application • Demo/discussion on emergency procedures & practice • Demo on instrument sharpening 	<p>Quiz on cup polishing & fluoride application</p>

**DHY 185
Instrumentation Assessment**

STUDENT _____
INSTRUCTOR _____
DATE _____

Typodont:

	Pen Grasp	Fulcrum	Wristrock	Exploratory Stroke	Working Stroke	Angulation of Blade	Rotations line angles	Order	Comments
Barnhart 5/6 Type	1	2	3	4	5	6	7	8	
Barnhart 5/6 Type	1	2	3	4	5	6	7	8	
YG 7/8	1	2	3	4	5	6	7	8	
NEVI 2	1	2	3	4	5	6	7	8	
NEVI 1	1	2	3	4	5	6	7	8	

Other Comments:

• **Locate calculus on a simulator in the following areas:**

- _____ anteriors
- _____ premolars
- _____ molars

• **Remove simulated calculus in the following areas:**

- _____ anteriors
- _____ premolars
- _____ molars

DHY 185 Instrumentation Assessment

Intra-oral:

	Pen Grasp	Fulcrum	Wristrock	Exploratory Stroke	Angulation of Blade	Working Stroke	Rotations line angles	Order	Comments
Barnhart 5/6 Type	1	2	3	4	5	6	7	8	
Barnhart 5/6 Type	1	2	3	4	5	6	7	8	
YG 7/8	1	2	3	4	5	6	7	8	
NEVI 2	1	2	3	4	5	6	7	8	
NEVI 1	1	2	3	4	5	6	7	8	

Other comments:

- **Locate calculus on an assigned classmate or client in the following areas:**

_____ anteriors
 _____ premolars
 _____ molars

- **Remove calculus on an assigned classmate or client in the following areas:**

_____ anteriors
 _____ premolars
 _____ molars

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

IF ANY R'S ARE RECORDED ON THE ASSESSMENT, THE FORM MUST BE REDONE.

Assessor's comments:

DHY 185 – ANTIMICROBIAL IRRIGATION Name _____
LABORATORY ASSESSMENT Date _____
Instructor _____

The student will demonstrate the subgingival irrigation procedure by:

- _____ **Filling the syringe and attaching the endodontic tip.**
- _____ **Gently placing the tip subgingivally**
- _____ **Slowly applying pressure to irrigate the sulcus or pocket.**
- _____ **Properly irrigating posterior teeth.**
- _____ **Properly irrigating anterior teeth.**
- _____ **Demonstrating home irrigation as you would teach your clients.**

A = ACCEPTABLE
I = IMPROVABLE
R = REDO

Comments: _____

**DHY 185 – POLISHING
LABORATORY ASSESSMENT**

Name _____
Date _____
Instructor _____

The student will be able to:

- **Demonstrate rubber cup polishing on the typodont by:**
 - _____ properly adapting the cup on the distals, mesials, and direct facials and linguals.
 - _____ splaying the cup under the tissue.
 - _____ using light to moderate, intermittent pressure.
 - _____ rotating the cup slowly.

- _____ **Demonstrate the brush on the occlusal surfaces on the typodont.**

- _____ **Prepare and apply the tin oxide to the typodont's teeth.**

- _____ **Polish with tin oxide utilizing the list of criteria above for rubber cup.**

- **Demonstrate rubber cup polishing intra-orally by:**
 - _____ properly adapting the cup on the distals, mesials, and direct facials and linguals.
 - _____ splaying the cup under the tissue.
 - _____ using light to moderate, intermittent pressure.
 - _____ rotating the cup slowly.

- **Demonstrate interproximal flossing following the polishing.** _

- **Obtain a final check by an instructor when the polishing is complete.** __

0-2 areas = A 3-4 areas left = I 5 or more areas left = R

Comments: _____

A = ACCEPTABLE
I = IMPROVABLE
R = REDO

**DHY 185 – FLUORIDE APPLICATION
LABORATORY ASSESSMENT**

Name _____
Date _____
Instructor _____

The student will demonstrate gel & foam fluoride application by:

- _____ **Determining whether the APF or Neutral sodium gel should be used.** • _____
Filling the trays with the appropriate amount.
- _____ **Drying the teeth prior to the application.**
- _____ **Placing the trays in the mandible first, then the maxilla.** • _____
Inserting the saliva ejector.
- _____ **Tilting the client’s head down.**
- _____ **Having the client chew for 4 minutes.**
- _____ **Removing the tray carefully and smoothly.**
- _____ **Reinserting the saliva ejector for approximately 1 minute.** • _____
_____ **Giving accurate post-op instructions.**

Comments: _____

A = ACCEPTABLE
I = IMPROVABLE
R = REDO

**DHY 185- INSTRUMENT SHARPENING
LABORATORY ASSESSMENT**

STUDENT _____
DATE _____
INSTRUCTOR _____

The student will be able to sharpen instruments demonstrating the following procedures:

H6/7– sickle end

- _____ instrument is stabilized
- _____ lower shank is at 12:00 o'clock
- _____ light is directed at the blade
- _____ moderate pressure to begin
- _____ lighter pressure to end
- _____ strokes are smooth and continuous
- _____ strokes are at 4 minutes before or after 12:00 o'clock
- _____ strokes use the whole stone length
- _____ sharpen both blades
- _____ checks for sharpness by using
 - _____ feeling with pad of fingers
 - _____ test stick
 - _____ reflection of light – no reflection if sharp

NEVI 2

- _____ instrument is stabilized
- _____ lower shank is at 12:00 o'clock
- _____ light is directed at the blade
- _____ moderate pressure to begin
- _____ lighter pressure to end
- _____ strokes are smooth and continuous
- _____ strokes are at 4 minutes before or after 12:00 o'clock
- _____ strokes use the whole stone length
- _____ sharpen both blades
- _____ checks for sharpness by using
 - _____ feeling with pad of fingers
 - _____ test stick
 - _____ reflection of light – no reflection if sharp

Comments:

Barnhardt 5/6

- ____ instrument is stabilized
- ____ lower shank is at 12:00 o'clock
- ____ light is directed at the blade
- ____ moderate pressure to begin
- ____ lighter pressure to end
- ____ strokes are smooth and continuous
- ____ strokes are at 4 minutes before or after 12:00 o'clock
- ____ strokes use the whole stone length
- ____ strokes are at 2:00 o'clock or 4:00 o'clock on the toe area
- ____ checks for sharpness by using
 - ____ feeling with pad of fingers
 - ____ test stick
 - ____ reflection of light – no reflection if sharp

YG 7/8

- ____ instrument is stabilized
- ____ lower shank is at 12:00 o'clock
- ____ light is directed at the blade
- ____ moderate pressure to begin
- ____ lighter pressure to end
- ____ strokes are smooth and continuous
- ____ strokes are at 4 minutes before or after 12:00 o'clock
- ____ strokes use the whole stone length
- ____ strokes are at 2:00 o'clock or 4:00 o'clock on the toe area
- ____ checks for sharpness by using
 - ____ feeling with pad of fingers
 - ____ test stick
 - ____ reflection of light – no reflection if sharp

A = ACCEPTABLE

I = IMPROVABLE

R = REDO

Comments:

The student will be able to:

- _____ **Locate the oxygen tank in the clinical area.**
- _____ **Adjust the oxygen for a patient having difficulty breathing.**
- _____ **Adjust the oxygen for a patient not breathing.**
- _____ **Locate the First Aid Kit in the clinical area.**
- _____ **Locate the support board for performing CPR.**
- _____ **Demonstrate the proper steps for retrieving a broken instrument tip.**
- _____ **Locate the fire extinguisher.**
- _____ **Locate the eye wash stations.**
- _____ **Demonstrate the proper use of the eye wash station.**
- _____ **Demonstrate the protocol for an emergency situation arising in the clinical setting.**

A _____ =
ACCEPTABLE
I = IMPROVABLE
R = REDO

Comments:

DHY 229 Dental Preventative Health

Fall 2016

Instructor Contact Information

Jody Williams

Phone: (641) 683-5120 | (800) 726-2585, ext.5120

Email: Jody.Williams@indianhills.edu

Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 2) This course is designed to provide concept of health and wellness; theories of teaching and motivation and a thorough knowledge of life stage changes. Students will identify and research contemporary treatment modalities.

Prerequisites

Required: DHY 235 Nutrition for Dental Hygiene

Required Textbooks

Darby, M. & Walsh, M. (2015). *Dental hygiene theory and practice, 4th edition*. Saint Louis; Elsevier

Course Focus

The course focused on the understanding of preventive dental therapies in the life stage changes

Course Goals/Student Learning Outcomes

Upon successful completion of this course, the student will be able to:

1. Differentiate the life changes dental needs and how to change therapies as the aging body changes occur.
2. Utilize the dental hygiene process of care with tooth brushing including the sharing of evidence based decision making with clients regarding and use of oral therapeutics based on specific patient needs.
3. Activate the CAMBRA caries prevention plan for all ages and lifestyles.
4. Implement the nutritional needs of all patient life changes.
5. Create a diagnostic, goals, intervention and outcome for caries prevention, nutritional changes and habit control.
6. Describe the link between oral and systemic health including health screening guideline's specific for women.
7. Describe the dental care of infants and children including the planning of their dental hygiene care.
8. Present the importance of health promotion for the older adult.
9. Describe oral conditions in the aged, including: differentiating age-related changes from those that occur as a result of diseases or medications.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, group exercises and discussions.

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 229 Discussion Chapter 33 Caries management: fluoride and non fluoride	Examine different fluorides types and methods of application demonstration/ practice	1,2,3,4
2	Week 1 quiz chapter 33 Discussion Chapter 34 Sealants and application	Quiz 1 Sealant lab in clinic manikins	1,2,3,4,5
3	Quiz 2 quiz chp 34 Discuss Chp 36 tobacco	sealant lab in clinic on peer	1,2,3,4,5

	cessation	with water etch, then sealant with etch, DO assessment sealant fluoride assessment at application after sealants	
4	Quiz 3 chapter 36	Quiz 3 sealant with etch, DO assessment sealant fluoride assessment at application after sealants	1,2,3,4,5
5	Tobacco cessation habit control therapy planning Discussion Chapter 54	Quiz 4 sealant lab in clinic on peer sealant assessments	1,2,3,4,5
6	Quiz 5 Chapter 54 Womens Health Midterm review	Habit control therapy (nail biting, digit sucking, clenching, assessment simulation Quiz 5	6,7,8,9
7	Midterm examination	Habit control therapy treatment plan	6,7,8,9,
8	Review midterm Discussion Chapter 53 Eating disorders	Anorexia, bulimia,	6,7,8,9
9	Chapter 55 older adult	Quiz 5 bulimia Xerostomia, drug considerations for dentistry Physical limitations	6,7,8,9
	Quiz older adult Discussion Chapter 23 oral health aids	Toothbrush, oral health aids for special needs	
10	Quiz 6 Chapter 23	Quiz 6 chapter 23	6,7,8,9
	Discussion Chapter 24 Mechanical biofilm control	Interdental aids	
11	Quiz Chapter 24	Quiz 6 interdental aids	6,7,8,9
	Final review		
12	Final		1,2,3,4,5,6, 7,8,9,
12			

Student Contributions and Method of Evaluation

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If you are sick and not going to be in class you must call and let me know.

Course Points	6-quizzes	300
	Mid term	100
	<u>Final exam</u>	<u>200</u>
	Total	600

Grading Scale

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D	75-77
F	0-74

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Ottumwa

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well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I Toothbrushing

Objectives:

Upon completion of this unit the student will be able to:

1. Describe characteristics of acceptable manual tooth brush designs
2. Describe characteristics and modes of action of power tooth brush designs.
3. Discuss soft and hard tissue lesions, including factors that cause tissue lesions and the significance of a clean tongue and toothbrush.
4. Discuss the dental hygiene process of care and toothbrushing including the sharing of evidence based decision making with client regarding selection and use of a toothbrush based on specific client needs.

Content:

- a. Manual toothbrushes
- b. Power toothbrushes
- c. Toothbrushing instruction
 - i. toothbrushing duration and frequency
 - ii. Toothbrushing force
 - iii. Toothbrushing methods
- d. Soft and hard tissue lesions
- e. The dental hygiene process of care and toothbrushing

Unit II Mechanical Oral biofilm control

Objectives:

Upon completion of this unit the student will be able to:

1. Discuss the selection of self care devices including the significance of removing or reducing interdental and subgingival plaque biofilm.
2. Discuss types of nonpowered interdental and supplemental self care devices including
3. Use of nonpowered self care devices designed for interdental and subgingival biofilm removal.
 - a. Selecting self care devices
 - b. Types of interdental and supplemental self care devices: nonpowered
 - i. Dental floss and tape
 - ii. String Flossing methods
 - iii. Floss holders and threaders
 - iv. Tooth picks, toothpick holders and triangular toothpicks
 - v. Rubber tip Stimulators
 - vi. Interdental brushes and tips

- vii. End tufted or single tufted brushes
- viii. Tongue cleaners
- ix. Additional devices
- c. Types of interdental and supplemental self care devices: powered
 - i. Flossing devices
 - ii. Interproximal brushes and tips
 - iii. Water Jets
 - iv. Tongue cleaner attachments

Unit II Caries management

Objectives:

Upon completion of this unit the student will be able to:

1. Discuss factors involved in caries management.
2. Discuss fluoride therapies.
3. Discuss acute fluoride toxicity including causes, signs, symptoms, emergency management and prevention.
4. Explain why xerostomia places clients at higher risk for caries and adds recommendations to manage the symptoms and associated caries risk.
5. Design a caries management plan based on sound clinical judgment and patient risk, needs and preferences.

Content:

Caries Management: fluoride and nonfluoride caries preventive agents

- a. Caries Management
- b. Caries management and ADA
- c. Fluoride therapies
- d. Ingested fluoride
 - i. Community water fluoridation
 - ii. Community water fluoridation and antifuoridationists
 - iii. Fluoride in food and beverage
 - iv. Prescription fluoride supplements
 - v. The risk of chronic fluoride toxicity
 - vi. Ingested fluoride issues for consideration
- e. Topical Fluoride
 - i. Fluoride and children
- f. Self- applied products for patients at risk for caries: rinses, gels, and pastes
 - i. over the counter daily patient applied fluoride mouth rinses
 - ii. Prescription client applied fluoride rinses
 - iii. Prescription weekly fluoride mouth rinses in school based programs
 - iv. Over the counter and prescription daily fluoride gels and pastes
- g. Professionally applied fluorides: gels, foam rinse and varnish.
 - i. Professionally applied fluoride products: evolution and types.
 - ii. Professionally applied tray technique: Patient and product selection.
 - iii. Professionally applied fluoride tray technique: features and advantages.
 - iv. Professionally applied fluoride tray technique: procedure
- h. Varnish
 - i. Acute fluoride toxicity

- i. Emergency management of acute toxicity
- ii. Prevention of acute and chronic fluoride toxicity
- j. Non-fluoride caries preventives agents American Dental Association recommendations
 - i. Chlorhexidine products and claims
 - ii. Xylitol products and claims
 - iii. Calcium and Phosphorus based products and claims
 - iv. Other nonfluoride products and claims
- k. Caries control for patients with xerostomia

Unit III Pit and Fissure Sealants

Objectives:

Upon completion of this unit the student will be able to:

1. Identify the role of sealants in primary and secondary prevention
2. Explain indications and contraindications for sealant placement
3. Explain how sealants are classified and describe each type.
 - a. Indications for sealant placement
 - b. Types of sealants
 - c.
 - i. classification by polymerization method
 - ii. Comparison of shrinkage patterns
 - iii. Classification by sealant content
 - d. Procedure for sealant placement

Unit IV Nutritional Counseling

Objectives:

Upon completion of this unit the student will be able to:

1. Identify individuals in need of nutritional counseling to control dental caries, promote postsurgical healing and tissue regeneration, reduce bone loss due to osteoporosis and osteopenia
2. Identify methods for conducting successful nutritional counseling
3. Discuss the nutritional needs of different client populations

Content:

- a. Nutrition Assessment
- b. Dietary Assessment
- c. Nutritional needs of different patients populations

Unit V Tobacco Cessation

Objectives:

Upon completion of this unit the student will be able to:

1. Describe systemic effects and oral health effects of tobacco use.
2. Explain the challenges to successful tobacco cessation
3. Discuss the different aspects of nicotine addiction
4. Discuss the key element of intensive tobacco cessation treatment programs, including coping strategies to prevent relapse.
 - a. Systemic health effects
 - b. Oral health effects

- c. Challenges to successful tobacco cessation
- d. Nicotine addiction
 - i. Physical effects
 - ii. Psychological, behavioral sensory and sociocultural aspects
- e. Helping clinics become tobacco free
- f. Assisting clients who are not ready to quit
- g. Assisting clients who are ready to stop tobacco use
- h. Key elements for intensive tobacco cessation treatment programs
- i. US Food and Drug Administration approved pharmacologic adjuncts
- j. nicotine replacement therapy
- k. Varenicline
- l. Implementations of tobacco intervention program in the oral healthcare setting
- m. The dental hygienist role in the community

Unit VI Women's health and the health of their children

Objectives:

Upon completion of this unit the student will be able to:

1. Discuss the links between oral and systemic health, including health screening guidelines specific for women.
2. Discuss significant life events of women, including: the relationship between hormonal changes and periodontal diseases.
3. Explain the relationship between periodontal disease status in pregnant women and preterm, low birthweight infants. Recognize oral manifestation of conditions and diseases prevalent in women.
4. Describe the dental care of infants and children including the planning of their dental hygiene care.

Content:

- a. Links between oral and systemic health
- b. Women and heart disease
- c. Significant life events
 - i. puberty and menses
 - ii. Oral contraceptives
 - iii. childbearing years and pregnancy
 - i.i pregnancy associated gingivitis
 - i.ii pregnancy granulomas
 - i.iii hormone replacement therapy
- d. Infant and child care
 - i. Early childhood caries
 - ii. herpetic infections

Unit VII The Older Adult

Objectives:

Upon completion of this unit the student will be able to:

1. Explain the demographic characteristics and their implication for older adult care.
2. Define the following: geriatrics, gerontology, chronologic age, and functional age.

3. Describe the different theories on why and how people age.
4. Explain the general and oral health assessment procedures and findings for the older adult
5. Explain the importance of health promotion for the aging client.

Content:

- a. Demographic aspect of aging
- b. Health care for older adults
- c. Why and how people age
 - i. social theories of aging
 - ii. Physiological aspects of aging
 - iii. Biologic theories of aging
- d. Health status and assessment
- e. Health Promotion and aging
- f. Oral conditions in the aged
 - i. Dental changes
 - ii. Periodontal changes
 - iii. Oral mucosal changes
 - v. Salivary gland changes
 - vi. Drug induced oral changes
- g. Dental hygiene with Older adults
 - i. Assessment and dental hygiene diagnosis
 - ii. Planning
 - iii. Implementation
 - iv. Evaluation
 - v. documentation
- h. Community Health Services

TEST DHY 229 Preventative Dental Health

J Williams

Name _____

Each question is worth 5 points (total 50 points)

1. In dentistry the profession should provide women with health information on the following:
 - a. Puberty, menses
 - b. Oral contraceptives and pregnancy
 - c. Osteoporosis and osteopenia
 - d. Childbearing and child rearing

- e. All of the above
 - f. B and C
2. Tobacco products and nicotine products are the same
 - a. True
 - b. False
 3. The most common cancer causing chemical in tobacco is:
 - a. carbon monoxide
 - b. nitrosamines
 - c. free nicotine
 - d. oral snuff
 4. The five A's approach to help a patient become tobacco free:
 - a. Ask, Approach, Assist, Advice, Agree
 - b. Assess, Assist, Agree, Advice, Approach
 - c. Ask, Advise, Assess, Assist, Arrange
 - d. Assess, Ask, Advise, Assist, Arrange
 5. Scenario: your patient does not want fluoride. He feels that it is poison and is concerned about any fluoride. He is making his own toothpaste along with other health products. In caries management the student should provide:
 - a. CAMBRA, Calcium building products, neutral sodium fluoride
 - b. CAMBRA, calcium building products, MI paste
 - c. CAMBRA, neutral sodium fluoride, MI paste
 - d. CAMBRA, phos-flur, MI paste, Calcium building products
 - e.
 6. Scenario: your patient's mother doesn't want her children drinking the city water. She is using highly filtered water and thinks that her children still need fluoride supplements. Select the most appropriate answer:
 - a. Ms. Brown, it is important not to over-fluoridate since the signs of that do not show up for five to ten years after the over-fluoridation. In order to find out the fluoride level from your filtered water, we can test the filtered water from your home and then add additional fluoridation if needed.
 - b. Ms. Brown, it is important not to over-fluoridate since the signs of that do not show up for five to ten years after the over-fluoridation. In order to find out the fluoride level from your filtered water, we will need to send in a test sample to the local water company to test the filtered water from your home and determine the level of fluoride that is present through the filtration.

- c. Ms. Brown, Since you are concerned about the fluoride level and the need for supplementation, you have an alternative choice in purchasing distilled water with fluoride added removing any possibility of over fluoridation from the filtration as it ages.
7. Based on the scenario in number 6 Ms. Brown is asking about fluoride treatments and is wanting only one fluoride treatment every two years. In your own words explain to Ms. Brown why fluoride treatments are helpful and the optimal professional treatment schedule.

Answer as if in a conversation to Ms. Brown (in a paragraph)

8. Ms. Brown has children that are 2 years of age and 8 years of age. What level of fluoride systemic supplementation should they receive once daily?
- a. 0.025mg and 0.10mg
 - b. 0.25mg and 10.0mg
 - c. 0.25mg and 1.0mg
 - d. 2.5mg and 1.0mg
9. What type of toothbrush method is best used for a person that creates excessive force and experiences pain from recession?
- a. Stillman
 - b. Charter
 - c. Roll stroke
 - d. Bass

10. Ms. Brown wants her eight year old to have sealants but has heard about a cancer causing material known as bisphenol A (BPA) being in sealants. Based on your understanding of sealants what type of alternative can you offer Ms. Brown?

Answer in conversation with Ms. Brown

DHY 135 Pharmacology and Pain Control

Fall 2016

Instructor Contact Information

Jody Williams

Phone: (641) 683-5120 | (800) 726-2585, ext.5120

Email: Jody.Williams@indianhills.edu

Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 2) This course will introduce the student to general pharmacology including drug classification, uses, actions, interactions, side effects contraindications, and systemic and oral manifestations. Administration of local anesthesia as it relates to dental hygiene therapy will be addressed. Emphasis is placed on drugs commonly used in dentistry and those which modify dental care procedures. Laboratory sessions will include concepts and practice in the delivery of local anesthesia.

Prerequisites

Required: DHY 117

Required Textbooks

Halves, E. (2011) *Applied pharmacology for the dental hygienist*. St Louis: Elsevier

Malamed, S. (2004) *Handbook of local anesthesia*. St Louis: Elsevier

Course Focus

The course focused on the understanding of pharmacology, administration of local anesthetics as it pertains to diseases relating to dental hygiene. Theories,

assessments are applied. Instructional strategy will include lectures, study objectives quizzes, and enrichment projects.

Course Goals/Student Learning Outcomes

The student will be able to do,

1. Use the PDR to identify drugs and their effects.
2. Compare the absorption, distribution, metabolism, and excretion of drugs by the body.
3. List and describe characteristics of drug actions.
4. Identify factors that influence drug effects.
5. Identify types of adverse reactions and methods for avoiding and treating them.
6. Recognize the parts of a prescription including abbreviations.
7. Review the actions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
8. Analyze commonly used adrenergic and adrenergic blocking agents including their actions, adverse effects, and interactions with other drugs.
9. Discriminate perception and reaction as components of the pain response.
10. analyze commonly used analgesics including their actions, adverse effects, and interactions with other drugs.
11. Differentiate assemble and administer commonly used general and local anesthetics including their actions, adverse effects, and interactions with other drugs.
12. Compare indications and contraindication for use of antibiotics.
13. Discuss the selection of an antimicrobial agent.
14. Assess commonly used antibiotics, anti-infectives, anti-viral, and antifungal agents including their mechanisms of action, adverse effects, uses, and interactions with other drugs.
15. Select the prophylactic use of antibiotics including the agent of choice and the regimen to be followed.
16. Select the need for anxiety control in dentistry.
17. compare commonly used sedative-hypnotic and anti-anxiety drugs including their actions, adverse effects, and interactions with other drugs.
18. set up and demonstrate the use of nitrous oxide sedation including its advantages, disadvantages, indications, and contraindications.
19. measure the effects of various chronic diseases on the oral cavity and dental treatment.

20. Recognize drugs commonly used in treatment of chronic diseases and their potential effects on dental treatment.
21. Identify interactions that are likely between drugs used in treatment of chronic diseases and those used in dental treatment.
22. Recognize the contents of an emergency drug kit including their uses and adverse effects.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, study objectives, examinations, quizzes, written reports, and discussions.

Week	Topic	Quiz/Tests/Lab	Goal #
1	Review of DHY 135 syllabus Introduction to DHY 135 read chapters 1-3 Discussion chapters 1-3 Information, Regulatory, prescription writing, drug action and handling, adverse reactions	Lab local anesthetics (Malamed) introduction pain management neurophysiology Medical history/BP pulse/respiration syringe assembly	1,2,3,4,5,6
2	Week 1 Quiz chapters 1-3 Discussion of chapter 4 & 5 & 9 autonomic drugs, nonopioid, local anesthetics	Quiz 1 chapters 1-3 Lab-Tray set up syringe assembly delivery/ aspiration/disposal practice injections in plums/ oranges assessment	1,2,5,7,11
3	Week 2 quiz 2 chapter 6&7 analgesics and antagonists	Quiz 2 chapter 4& 5 & 9 Anesthetic administration_Max R, Mand R ½ class client group one	1,2,3,4,11

4	Week 3 Quiz chapter 6&7 Chapter 8&10 discussion antifungal/ antiviral, general anesthetics	Quiz 3 chapter 6&7 Anesthetic administration Max R, Mand R ½ class client group two	1,2,3,4,11,14
5	Week 4 Quiz Chapters 8 &10 Chapter 23,& 24 emergency and pregnancy	Quiz 4 chapter 8 &10 Anesthetic administration Max L, Mand L ½ class client group one	2,3,4,5,11,14
6	Mid term examination includes chapters 1-10 23&24 Discussion Chapter 11 & 12 antianxiety, Drugs used in dentistry	Anesthetic administration Max L, Mand L ½ class client group two	1,2,3,4,5,11,14,15,17
7	Week 6 quiz chapter Discussion Chapter 13&14 treatment of oral conditions, hygiene related oral disorders	Anesthetic administration lab nitrous oxide discussion	2,4,9,10,11,12
8	Week 7 quiz chapter Discussion chapter 15&16 Cardiovascular drugs, anticonvulsants	Anesthetic administration/ nitrous oxide lab group one	2,4,5,6,7,11,18
9	Week 8 Quiz Discussion chapter 17 &18 psychotherapeutic agents, Autocoids and antihistamines/adrenocorticostero ids	Anesthetic administration/Nitro us oxide lab group two	8, 9,10,11,12,18
10	Week 9 Quiz Discussion chapter 19&20, Adrenocorticosteroids, other hormones	Anesthetic administration/Nitro us oxide lab group three	8, 9, 10, 11, 12,13 14,15,18
11	Week 10 quiz	Nitrous oxide lab	1,2,3,4,5,6,7,8,9,10,

	Discussion 21,22,26 antineoplastic drugs, drugs that may alter treatment herbal supplements, Review for final	Group four	11,12,13,14,15,16,1 7, 18,20,21,22
12	Final Exam	Nitrous oxide lab group five Report on special medical situations due	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15, 16,17,18,19,20,21, 22
12	Final Exam	60 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. All assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, and discussions. Being prepared prior to class time by reading your text and completing the study objectives will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class. This also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class you must call and let me know.

Grading Scale

Quiz A is for the full points listed under the Quiz A column. If the student quiz score is below 78% the student must take Quiz B within a week of taking the quiz A. This opportunity allows the student to retry but at lesser available points. The maximum letter grade for this retry is a B. This applies for all quizzes. **Mid terms and finals do not have a quiz B.**

Quiz A

Quiz B (second attempt quiz)

Letter	% Range	Letter	% Range
A	93-100	B	93-100
B	85-92	C	85-92
C	78-84	D	78-84
D	75-77	F	0-77
F	0-74		

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

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Curriculum Outline

Unit I

Objectives: General principles of Pharmacology

Upon completion of this unit, the student will be able to:

1. Discuss the history of pharmacology and its relationship to the oral health care provider.
2. Define the way in which drugs are named and significance of each.

3. Describe the acts and agencies within the federal; government designed to regulate drugs.
4. Identify the four phases of clinical evaluation involved in drug approval and the five schedules of drugs.
5. Differentiate dose, potency, and efficacy in the context of the actions of drugs.
6. Explain the pharmacologic effect of a drug.
7. Discuss the major steps of pharmacokinetics: absorption, distribution, metabolism, and excretion.
8. Provide examples of factors that may alter the effect of a drug.
9. Define an adverse drug reaction and name five categories of reaction.
10. Discuss the risk to benefit ratio of the use of a drug for therapeutic effect and its potential adverse reactions.
11. Explain how the toxic effects of drugs are evaluated.

Information, sources, Regulatory Agencies, Drug legislation, and Prescription Writing.
Content

- History

- Pharmacology

- Providers

- Sources

- Drug names

- Drug substitution

- Top 200 Drugs

- Federal Regulations and Regulatory Agencies

- Harrison Narcotic Act

- Food and Drug Administration

- Federal Trade Commission

- Drug Enforcement Administration

- Omnibus Budget Reconciliation Act

- Clinical Evaluation of a New Drug

- Drug Legislation

- History

- Scheduled Drugs

- Prescription Writing

- Measurement

- Prescriptions

- Explanations accompanying Prescriptions

Content Drug Action and Handling

- Characterization of Drug Action

- Log Dose Effect Curve

- Potency

- Efficacy

- Chemical Signaling among cells
- Mechanism of Action of Drugs
 - Nerve transmission
 - Receptors
- Pharmacokinetics
 - Passage across Body Membranes
 - Absorption
 - Distribution
 - Half-life
 - Blood-brain Barrier
 - Redistribution
 - Metabolism (Biotransformation)
- Routes of Administration and Dose Forms
 - Routes of Administration
 - Routes of Administration
 - Dose Forms
- Factors that Alter Drug Effects
- Content Adverse Reactions
 - Definition and Classifications Clinical Manifestations of Adverse Reactions
 - Exaggerated Effect on Target Tissues
 - Effect on non-target Tissues
 - Effect on Fetal Development (Teratogenic Effect)
 - Local Effect
 - Drug Interactions
 - Hypersensitivity (Allergic Reactions)
 - Idiosyncrasy
 - Interference with Natural Defense
 - Mechanisms
- Toxicological Evaluation of Drugs

Unit II Drugs Used In Dentistry

Objectives: Autonomic Drugs

1. Identify the major components and functional organization of the autonomic nervous system.
2. Discuss the pharmacologic effects, adverse reactions, contraindications, and dental considerations of cholinergic agents.
3. Discuss the pharmacologic effects, adverse reactions, contraindications, and dental considerations of anticholinergic agents.
4. Identify the major components of the sympathetic nervous system.
5. Discuss the pharmacologic effects, adverse reactions, contraindications, and dental considerations of adrenergic agents.

6. Explain the works of adrenergic blocking agents and neuromuscular blocking agents.

Content

Autonomic Nervous System

Anatomy

Parasympathetic Autonomic nervous system

Sympathetic autonomic nervous system

Functional Organization

Neurotransmitters

Drug groups

Parasympathetic autonomic nervous system

Cholinergic (parasympathomimetic) agents

Anti cholinergic (Parasympatholytic) Agents

Nicotinic Agonists and antagonists

Sympathetic Autonomic Nervous System

Sympathetic autonomic nervous system receptors

Adrenergic (sympathomimetic) agents

Adrenergic blocking agents

Neuromuscular blocking drugs

Content: Nonopioid (Nonnarcotic) Analgesics

Pain

Classification

Salicylates

Acetylsalicylic Acid

Other Salicylates

Nonsteroidal anti-inflammatory drugs

Chemical classification

Mechanism of action

Pharmacokinetics

Pharmacologic effects

Adverse reactions

Drug interactions

Contraindications and Cautions

Therapeutic uses

Specific Nonsteroidal Anti-inflammatory Drugs

Acetaminophen

Pharmacokinetics

Pharmacologic Effects

Adverse Reactions

- Drug Interactions
- Uses
- Dose and Preparations
- Drugs used to treat gout
 - Colchicine
 - Allopurinol
 - Probenecid

- Content Opioid (Narcotic) Analgesic and Antagonists
 - History
 - Terminology
 - Classification
 - Mechanism of action
 - Pharmacokinetics
 - Analgesia
 - Sedation and Euphoria
 - Cough Suppression
 - Gastrointestinal Effects
 - Adverse reactions
 - Respiratory Depression
 - Nausea and Emesis
 - Constipation
 - Meiosis
 - Urinary retention
 - Central Nervous System Effects
 - Cardiovascular Effects
 - Biliary Tract Constriction
 - Histamine Release
 - Pregnancy and Nursing Considerations
 - Addiction
 - Allergic reactions
 - Drug interactions
 - Specific Opioids
 - Opioid Agonists
 - Mixed Opioids
 - Tramadol
 - Dental Use of Opioids

- Content Anti-infective agents
 - Dental infection evolution
 - History

- Definitions
- Infection
- Culture and sensitivity
- Resistance
- Indications for antimicrobial agents
- General adverse reactions and disadvantages associated with anti-infective agents
- Penicillin
- Macrolide
- Tetracycline
- Clindamycin
- Metronidazole
- Cephalosporin
- Rational use of anti-infective agents in dentistry
- Antimicrobial agents for non-dental use
- Antituberculosis agents
- Topical antibiotics
- Antibiotic prophylaxis used in dentistry

Content: Antifungal and Antiviral Agents

- Anti-fungal agents
 - Nystatin
 - Imidazole
 - Other antifungal agents
- Antiviral agents
 - Herpes Simplex
 - Acquired Immunodeficiency Syndrome
 - Other Antiviral agents

Content: Local Anesthetics

- History
- Ideal Local anesthetic
- Chemistry
- Mechanism of action
 - Action on nerve fibers
 - Ionization factors
- Pharmacokinetics
 - Absorption
 - Distribution
 - Metabolism
 - Excretion
- Pharmacologic Effects

- Peripheral Nerve conduction (blocker)
- Antiarrhythmic
- Adverse Reactions
 - Toxicity
 - Local Effects
- Malignant Hyperthermia
- Pregnancy and nursing considerations
- Allergy
- Compositions of local anesthetic solutions
 - Solutions
- Local anesthetic agents
 - Amides
 - Esters
 - Other local anesthetics
- Vasoconstrictors
 - Overview
 - Drug interactions
- Choice of local anesthetic
- Topical anesthetics
 - Amides
 - Esters
 - Precautions in topical anesthetic
- Doses of local anesthetic and vasoconstrictor

Content: General Anesthetics

Objectives

1. Summarize the history of general anesthesia in dentistry
2. Describe how general anesthesia worked and the stages and planes involved
3. Compare and contrast the classifications of general anesthesia
4. Discuss the use of nitrous oxide in dentistry, including how it worked, the pharmacologic effects, adverse reactions, and contraindications
5. Name and describe several types of halogenated hydrocarbons
6. Identify and describe several other types of general anesthesia.

History

Mechanism of action

Overview

Stages and planes of anesthesia

Adverse reactions

General anesthetics

Classification of anesthetic agents

Nitrous oxide

Halogenated hydrocarbons
Other General anesthetics

Balanced general anesthesia

Content: Antianxiety agents

Objectives

1. Discuss the value of patient relaxation in dentistry
2. Describe the mechanism of action, interactions, and dental relevance of the benzodiazepines and barbiturates
3. Name and briefly describe the mechanism of action of the nonbenzodiazepine-nonbarbiturate sedative-hypnotics and the nonbenzodiazepine- nonbarbiturate receptor agonists
4. Name a melatonin receptor agonist and summarize its actions
5. Explains the workings of the centrally acting muscle relaxants and how they are used.
6. Discuss some general precautions about which the dental practitioner should be aware with the use of antianxiety agents.
 - a. Definitions
 - b. Benzodiazepines
 - i. Chemistry
 - ii. Pharmacokinetics
 - iii. Mechanism of action
 - iv. Pharmacologic effects
 - v. Adverse reactions
 - vi. Abuse and tolerance
 - vii. Drug interactions
 - viii. Medical uses
 - ix. Management of the Dental patient taking benzodiazepines
 - c. Barbiturate
 - i. Chemistry
 - ii. Pharmacokinetics
 - iii. Mechanism of action
 - iv. Pharmacologic effects
 - v. Adverse reactions
 - vi. Chronic long term use
 - vii. Contraindications
 - viii. Drug interactions
 - ix. Uses
 - d. Non Benzodiazepine-Nonbarbiturate sedative-hypnotics
 - i. Chloral hydrate
 - ii. Buspirone
 - e. Non benzodiazepine nonbarbiturate receptor agonists
 - i. Zolpidem
 - ii. Zaleplon
 - iii. Eszopiclone

- f. Melatonin receptor agonist
- g. Centrally acting muscle relaxants
 - i. Pharmacologic effects
 - ii. Individual centrally action muscle relaxants
- h. Miscellaneous agents
 - i. Baclofene
 - ii. Tizanidine
 - iii. Dentrolene
- i. General Comments about anxiety agents
 - i. Analgesic- sedative combinations
 - ii. Special considerations
 - iii. Precautions

Content: Vitamins and Minerals

Objective:

1. Explain the body's need for vitamins and minerals
2. Summarize and explain how vitamins are classified
3. Name and describe the water-and fat-soluble vitamins- sources, recommended amounts, roles, deficiencies, adverse reactions, and clinical considerations.
4. Describe the sources, recommended amounts, roles, deficiencies, and toxicity of the minerals iron, zinc, and calcium.
5. Discuss the clinical considerations of vitamins and mineral and provide several examples of their relevance to dental treatment.

Measurements

Water-soluble vitamins

Ascorbic acid

B complex vitamins

Other B vitamins

Fat soluble vitamins

Vitamin A

Vitamin D

Vitamin E

Vitamin K

Content: Oral Conditions and their treatment

Objectives:

1. Name several common infectious lesions of the oral cavity and summarize the treatments for each.
2. Describe immune reactions resulting in canker sores and lichen planus and discuss the treatments for each.
3. Name several oral conditions that result from inflammation and the measures used to treat them.
4. Discuss treatment options for xerostomia and name several other possible drug induce oral side effects
5. Discuss the pharmacologic agents most commonly used to treat oral lesions.

- a. Infectious Lesions
 - i. Acute necrotizing ulcerative gingivitis
 - ii. Herpes infections
 - iii. Candidiasis
 - iv. Angular Cheilitis/Chielosis
 - v. Alveolar Osteitis
- b. Immune reactions
 - i. Recurrent aphthous stomatitis
 - ii. Lichen planus
- c. Miscellaneous oral conditions
 - i. Geographic tongue
 - ii. Burning mouth or tongue syndrome
- d. Inflammation
 - i. Pericoronitis
 - ii. Post irradiation Caries
 - iii. Root sensitivity
 - iv. Actinic lip changes
 - v. Stomatitis
- e. Drug induced oral side effects
 - i. Xerostomia
 - ii. Sialorrhea
 - iii. Hypersensitivity-type reactions
 - iv. Oral lesions that resemble auto-immune type reactions
 - v. Stains
 - vi. Gingival enlargement
- f. Common agents used to treat oral lesions
 - i. Corticosteroids
 - ii. Palliative treatment

Content: Hygiene-Related oral disorders

Objectives

1. Discuss the nonpharmacologic therapies that are effective in preventing caries
2. Discuss the role of fluoride in preventing caries
3. Discuss the proper methods that patients should use when brushing and flossing
4. Differential between acute and chronic fluoride toxicity and know how to treat both.
5. Compare and contrast both professionally applied and at home fluoride preparations
6. Discuss the proper methods that patients should use regarding at home fluoride
7. Discuss the proper methods for administering professionally applied fluoride preparations
8. Discuss the pathophysiology and incidence of gingivitis
9. Compare and contrast the available treatments for gingivitis
10. Discuss the pathophysiology of tooth hypersensitivity.

11. Compare and contrast the at home and in office therapies for the treatment of tooth hypersensitivity
12. Discuss the dental hygiene considerations associated with a caries, gingivitis and tooth hypersensitivity
 - a. Dental Caries
 - Prevention
 - b. Gingivitis
 - Prevention
3. Tooth Hypersensitivity
 - Pathophysiology
 - Treatment

Unit III: Drugs that may alter dental treatment

Content: Cardiovascular drugs

Objectives:

1. Identify several dental issues in the treatment of patients with cardiovascular disease.
 2. Describe heart failure and identify drugs commonly used to treat it, including mechanisms of action, pharmacologic effects, adverse reactions, and uses of each.
 3. Define arrhythmia and dysrhythmia and describe how the heart maintains its normal rhythm.
 4. Describe the mechanisms of action, pharmacologic effects, adverse reactions, and uses of antiarrhythmic agents and identify the issue to consider in dental treatment
 5. Define angina pectoris and describe the types of drugs used to treat it, identify that dental implications of these drugs.
 6. Describe the various types of antihypertensive agents, including the mechanism of action, pharmacologic effects, adverse reactions, and uses of each. Also identify potential drug interactions and the dental implications of these drugs.
 7. Define hyperlipidemia and hyperlipoproteinemia and summarize the types of drugs used to restore cholesterol homeostasis in the body.
 8. Describe the role of warfarin in blood coagulation and the potential adverse reactions and interactions associated with its use.
 9. Identify several other drugs that affect blood coagulation.
 - a. Dental implications of cardiovascular disease
 - i. Contraindications to treatment
 - ii Vasoconstrictor limit
 - iii. Infective Endocarditis
 - iv Cardiac Pacemakers
 - v. Periodontal disease and cardiovascular disease
- Cardiac Glycosides
Heart failure

- Digitalis Glycosides
- Antiarrhythmic agents
 - Automaticity
 - Action potential
 - Arrhythmias
 - Antiarrhythmic agents
 - Adverse reactions
 - Dental implications
- Antianginal drugs
 - Angina pectoris
 - Nitroglycerin-like compounds
 - Calcium channel blocking agents
 - B*-Adrenergic blocking agents
 - Ranolazine
 - Dental implications
- Anti hypertensive drugs
 - Patent evaluation
 - Treatment of hypertension
 - Diuretic agents
 - B-Adrenergic blocking agents
 - Calcium channel blocking agents
 - Angiotension-related agents
 - Renin inhibitors
 - α1*-Adrenergic blocking agents
 - Other antihypertensive agents
 - Management of the dental patient taking antihypertensive agents
- Anti hyperlipidemic agents
 - 3-hydroxy-3-methylglutaryl coenzyme A
 - Niacin
 - Cholestyramine
 - Gemfibrozil
 - Dental implications
- Drugs that affect blood coagulation
 - Anticoagulants
 - Drugs that increase blood clotting

Content: Anticonvulsants

Objectives:

1. Define epilepsy and briefly summarize the various types of seizures.
2. List and describe general adverse reactions to anticonvulsants

3. Summarize the pharmacologic effects, adverse reactions, and drug interactions of the main anticonvulsants-carbamazepine, valproate, phenobarbital, and phenytoin.
4. Name two miscellaneous anticonvulsants and describe the workings of each.
5. Provide several examples of new types of anticonvulsants, including the mechanism of action, indications, and adverse reactions of each.
6. Outline the dental treatment of patients with epilepsy.

Outline:

- a. Epilepsy
 - a. Generalized seizures
 - b. Partial epilepsies
- b. Drug therapy of patients with epilepsy
 - i. General adverse reactions to anti convulsant agents
 - ii. Carbamazepine
 - iii. Valproate
 - iv. Phenobarbital
 - v. Phenytoin
 - vi. Miscellaneous anticonvulsant agents
 - vii. New anticonvulsant agents
- c. Dental treatment with the patient with epilepsy
- d. Nonseizure uses of anticonvulsants
 - i. Neurologic pain
 - ii. Psychiatric use

Content: Autocoids and antihistamines

1. Define histamine and discuss its pharmacologic effects, adverse reaction, and uses.
 2. Describe the dental implications, pharmacologic effects, adverse reactions, toxicity and uses of antihistamines
 3. Name and discuss the mechanism of action of nonsedating H1 receptor antagonists.
 4. Categorize the prostaglandins and thromboxanes and outline their pharmacologic effects, uses, and dental implications.
- List several other types of autacoids and describe how they work.

Outline:

- a. Histamines
 - i. Pharmacologic effects
 - ii. Adverse reactions
 - iii. Uses
- b. Antihistamines
 - i. Pharmacologic effects

- ii. Adverse reactions
 - iii. Toxicity
 - iv. Uses
- c. Peripheral H1-receptor agents
 - i. Fexofenadine
 - ii. Loratadine
 - iii. Desloratadine
 - iv. Cetirizine
 - v. Acrivastine
 - vi. Azelastine
- d. Other autocooids
 - i. Prostaglandins and thromboxanes
 - ii. Leukotrienes
 - iii. Kinins
 - iv. Substance P

Content: Adrenocorticosteroids

Objectives:

1. Define adrenocorticosteroids and describe how the body releases them.
2. Summarize the classification, administration, mechanism of action, and pharmacologic effects of adrenocorticosteroids.
3. Describes the various adverse reactions and uses of adrenocorticosteroids, including their application to dentistry.
4. Differentiate several examples of corticosteroids
5. List several dental implications to the use of steroids

Outline:

- a. Mechanism of Release
- b. Classification
- c. Definitions
- d. Routes of administration
- e. Mechanism of action
- f. Pharmacologic effects
- g. Adverse reactions
 - Metabolic changes
 - Infections
 - Central nervous system effects
 - Peptic ulcer
 - Impaired wound healing and osteoporosis
 - Ophthalmic effects
 - Electrolyte and fluid balance
 - Adrenal crisis
 - Dental effects

h.Uses

Medical uses

Dental uses

i.Corticosteroid products

j.Dental implications

Adverse reactions

Steroid supplementation

Topical use

Content: Other Hormones

Objectives:

1. Outline the functions of the anterior and posterior glands.
2. Provide an overview of the thyroid hormones and the conditions known as hypothyroidism and hyperthyroidism and the antithyroid drugs.
3. Define diabetes mellitus, list and describe the two types of this disease, its complications issue involving dentistry, cautions and contraindications in the treatment of patients with diabetes, and the effects of drugs on complications of diabetes.
4. Name and describe the types of drugs used to treat diabetes
5. Summarize the major female and male sex hormones and describe several types of hormonal contraceptives.

Pituitary hormones

Anterior pituitary

Posterior pituitary

Thyroid hormones

Iodine

Hypothyroidism

Hyperthyroidism

Pancreatic hormones

Diabetes Mellitus

Female sex hormones

Estrogens

Progestin

Hormonal contraceptives

Male sex hormones

Androgens

Other agents that affect sex hormone systems

Clomiphene

Leuprolide

Tamoxifen

Danazol

Aromatase Inhibitors

Content: Antineoplastic Drugs

Objectives:

1. Define antineoplastic agents.
2. Summarize the use, mechanisms of action, and classification of antineoplastic agents.
3. Describe several adverse drug effects associated with antineoplastic agents
4. 4. Discuss the dental implications of patients planning to take or actively taking antineoplastic drugs.

Outline:

- a. Use of antineoplastic agents
- b. Mechanisms of action
- c. Classification
- d. Adverse drug effects
 - i. Bone marrow suppression
 - ii. Osteonecrosis
 - iii. Gastrointestinal effects
 - iv. Dermatologic effects
 - v. Hepatotoxicity
 - vi. Neurologic effects
 - vii. Nephrotoxicity
 - viii. Immunosuppression
 - ix. Germ cells
 - x. Oral effects
- e. Combinations
- f. Dental implications

Content: Respiratory and gastrointestinal drugs

Objectives:

1. Summarize the two groups of respiratory diseases.
2. Name and describe the mechanisms of action of several types of drugs used to treat respiratory diseases.
3. Discuss the types of drugs used to treat respiratory infections, including the implications to dentistry.
4. Summarize the most common types of gastrointestinal diseases.
5. Name and describe the types of drugs used to treat gastrointestinal disease including any implications to dentistry.

Outline:

- Respiratory Drugs
 - Respiratory diseases
 - Drugs used to treat respiratory diseases
 - Metered-dose inhalers
 - Sympathomimetic agents

- Corticosteroids
- Leukotriene modifiers
- Methylxanthines
- Anticholinergics
- Anti-Immunoglobulin E antibodies
- Agents used to mane upper respiratory infections
- Dental implications of the respiratory drugs
- Gastrointestinal drugs
 - Gastrointestinal diseases
 - Dental implications
- Drugs used to treat gastrointestinal diseases
 - Histamine2-blocking agents
 - Proton pump inhibitors
 - Mixed anti-infective therapy for ulcer treatment
 - Antacids
 - Miscellaneous gastrointestinal drugs
 - Laxatives and antidiarrheal
 - Antiemetic
 - Agents Used to manage chronic inflammatory bowel disease

Content: Emergency drugs

Objectives

1. Summarize the general measures a dental professional should follow to train for an emergency and the preparation for treatment in the event of an emergency.
2. Name and describe several categories of emergencies and provide common examples within each category.
3. List the critical drugs to include in a dental office emergency kit and several examples of second or third level drugs that would be optimal.
4. Name several pieces of equipment that would be included in the emergency kit.

Outline:

- General measures
 - Steps indicated
 - Preparation for treatment
- Categories of emergencies
 - Lost or altered consciousness
 - Respiratory emergencies
 - Cardiovascular system emergencies
 - Other emergencies
 - Epinephrine
- Emergency kit for the dental office
 - Drugs

Equipment

Content: Pregnancy and Breast-feeding

Objectives

1. List the two main concerns in the administration of drugs during pregnancy.
2. Define teratogenicity and outline the food and drug administration's categories of drugs for pregnancy.
3. Name several types of local anesthetic, anti-infective, and antianxiety agents and state their indications or contraindications for pregnant women.

4. Outline

General principles

Two main concerns

History

Pregnancy

Pregnancy trimesters

Teratogenicity

Food and Drug administration pregnancy categories

Breast Feeding

Dental Drugs

Local anesthetic agents

Epinephrine

Analgesics

Anti-infective agents

Antianxiety

Content: Drug Abuse

Objectives:

1. Define Addiction, dependence, tolerance, and withdraw in relation to drug abuse.
2. Name several types of central nervous system depressants that are commonly abused and outline the typical pattern of abuse, treatment, adverse reactions, management of overdose and withdrawal, and dental treatment implications of each.
3. Identify several types of central nervous system stimulants that are commonly abused.
4. Describe the pattern of abuse and treatment options associated with tobacco use, and summarize the role of the dental health care worker in tobacco cessation.
5. Discuss ways in which the dental health care worker can identify patients or colleagues who may be abusing drugs.

Outline:

a. General considerations

Definitions

- Psychological dependence
- Physical dependence
- Tolerance
- b. Central Nervous system depressants
 - Ethyl Alcohol
 - Nitrous oxide
 - Opioid analgesics
 - Sedative-hypnotics
- c. Central nervous system stimulants
 - Cocaine
 - Amphetamines
 - Caffeine
 - Tobacco
- d. Psychedelics (Hallucinogens)
 - Lysergic acid diethylamide
 - Phencyclidine
 - Marijuana
- e. Identifying the drug abuser
- f. The impaired dental health care worker

Content: Natural /herbal products and dietary supplements

Objectives:

1. Discuss why people choose herbal products over traditional medicine
2. Discuss the federal legislation governing herbal and dietary products
3. Discuss good Manufacturing practice and the standardization of herbal products
4. Explain the adverse effects associated with herbal products and their affect on oral health care.
5. Discuss the herbal supplements that are used in oral health care.
6. Explain the drug interactions associated with herbal products and their impact on oral health care.
7. Explain the dental hygiene considerations associated with the use of herbal products.

Outline:

- Limited regulation
 - Dietary supplement health and education act
 - Package labeling
- Safety of herbal and nutritional products
- Drug interactions
- Standardization of herbal products
- Good manufacturing practice
- Herbal supplements used in oral health care

Acemannan
Essential oil mouth rinse
Oil of cloves (eugenol)
Triclosan
Xylitol

Quiz A – DHY 135 – Pharmacology & Anesthesiology
Drugs Affecting the ANS

Name _____ **Module #2**

Circle the letter for the **best response** to each of the following multiple choice items. There is only one (1) correct answer for each item.

1. Which of the following best describe the sympathetic autonomic nervous system?
 - a. Craniosacral and energy conserving
 - b. Craniosacral and diffuse
 - c. Thoracolumbar and energy conserving
 - d. Thoracolumbar and diffuse

2. Which of the following best describe the parasympathetic autonomic nervous system?
 - a. Craniosacral and energy conserving
 - b. Craniosacral and diffuse
 - c. Thoracolumbar and energy conserving
 - d. Thoracolumbar and diffuse

3. Which of the following is a neurotransmitter that functions in both the PANS and the SANS nervous systems?
 - a. Acetylcholine
 - b. Epinephrine
 - c. Norepinephrine
 - d. Tubocurare

4. The adrenal medulla is part of the adrenal gland. Where is it located?
 - a. At the base of the brain
 - b. In the spinal cord
 - c. On the kidneys
 - d. Near the heart

5. Parasympathetic (PANS) stimulation has three effects on the eye:
 - a. Pupil dilation, accommodation for near vision and stimulation of tear formation
 - b. Pupil constriction, accommodation for far vision and stimulation of tear formation
 - c. Pupil dilation, accommodation for far vision and inhibition of tear formation

6. Patient Jones has myasthenia gravis. His doctor prescribes pilocarpine to treat the condition. Mr. Jones also has diabetes, high blood pressure, cardiac disease and asthma. Which of these conditions is most likely to be adversely affected by pilocarpine, based on its pharmacological effects:
 - a. Diabetes
 - b. High blood pressure
 - c. Cardiac disease
 - d. Asthma

7. The primary mechanism for inactivation of acetylcholine is:
 - a. Breakdown of acetylcholine by an enzyme in the synapse
 - b. Reuptake of the chemical unchanged by the nerve that secreted it
 - c. Reuptake of the chemical unchanged by the affected nerve or tissue
 - d. Secretion of an antagonist by the receptor site

8. The general term for nerves that carry impulses away from the spinal cord:
 - a. Afferent
 - b. Post ganglionic
 - c. Efferent
 - d. Synaptic

9. 9. The specific effect of an indirect acting parasympathomimetic (indirect cholinergic) drug is to:
- Prolong the effects of norepinephrine thereby extending its action on the organ
 - Prolong the effects of epinephrine
 - Prolong the effects of nicotine
 - Prolong the effects of acetylcholine thereby extending its parasympathetic action on the organ
10. Drug X has strong Beta 1 antagonist (sympatholytic) activity. Which of the following organs is most likely to be affected by its action, based on class discussion?
- Arteries
 - Eye
 - Heart
 - Uterus
 - Lungs
11. Contraction of the iris causes formation of a small pupil. This is called:
- Mydriasis
 - Bradycardia
 - Miosis
 - Photophobia
12. A serious side effect of overexposure to organophosphate insecticides is a syndrome called SLUD. This syndrome is best explained as:
- SANS stimulation causing excessive fluid secretions
 - PANS stimulation causing excessive fluid secretions
 - Adrenal medulla stimulation, resulting in hypotension and then cardiac arrest
 - Blockade of PANS neurotransmitters causing reduced fluid secretions
13. The two different pharmacology drug classes that would have essentially the same effects of bronchial dilation, increased heart rate and decreased GI motility are:
- Sympathomimetic and a parasympathomimetic
 - Sympatholytic and a parasympatholytic
 - Sympathomimetic and a parasympatholytic

- d. Parasympatholytic and a parasympathomimetic
14. Which drug pharmacology class would produce both xerostomia and photophobia:
- Sympatholytic
 - Sympathomimetic
 - Parasympathomimetic
 - Cholinergic
15. Which of the following organs has beta 2 receptors:
- Lungs
 - Muscles
 - Heart
 - GI tract
16. Nicotine is a potent drug that can cause death in low doses. Nicotine works by stimulating which of the following areas of the autonomic nervous system:
- Synapses of post ganglionic SANS
 - Synapses of post ganglionic PANS
 - Ganglia (synapses) between pre & post ganglionic neurons of both the SANS and PANS
 - Synapses of post ganglionic somatic
17. The somatic system is a branch of the efferent nervous system. The following statement best characterizes this system:
- Voluntary muscle control with pre and postganglionic neurons
 - Involuntary muscle control with pre and postganglionic neurons
 - Voluntary muscle control with no ganglion
 - Involuntary muscle control with no ganglion
18. Scopolamine is an anticholinergic that penetrates the blood brain barrier. It is used primarily for:
- Producing a dry field
 - Eye tests
 - Motion sickness
 - Treatment of myasthenia gravis

Match the drug classes with the appropriate treatment:

23. _____ Treatment for asthmatic attack
- epinephrine
24. _____ Treatment for xerostomia
- Pilocarpine
 - Atropine

25. Administration of epinephrine would have the following effects on the heart:
- Increased chronotropic and decreased inotropic
 - Decreased chronotropic and increased inotropic
 - Increased chronotropic and increased inotropic
 - Decreased chronotropic and decreased inotropic

EXTRA CREDIT:

- Translate these Latin abbreviations into a prescription that could be read by a patient: Sig: 2 tabs PO tid pc & qhs prn headache
- Drug X has an ED₅₀ of 10mg and a LD₅₀ of 120mg. What is the therapeutic index of drug X? Is this therapeutic index considered relatively safe or unsafe, from a patient safety perspective? (Both answers must be correct for credit on this question)

Describe pain and its purpose and main components

- Discuss the chemistry and pharmacokinetics, pharmacologic effects, adverse reactions, toxicity drug interactions, and uses of aspirin.
- Define the term nonsteroidal anti-inflammatory drug and discuss the chemistry, pharmacokinetics, pharmacologic effects, adverse reactions, toxicity, drug interactions, and uses of these drugs.
- Discuss the properties, pharmacologic effects, drug interactions, and uses of acetaminophen.
- Explain the disease known as gout and summarize the drugs used to treat it.
- Explain the classification, mechanism of action, and pharmacokinetics of opioids.
- List and describe the pharmacologic effects and potential adverse reactions of opioids.
- Discuss the addiction potential of opioids, including treatment.
- Name and explain the analgesic actions of the most common opioid agonists.
- Discuss the actions of and provide examples of them mixed opioids.
- Summarize the mechanism of action of tramadol.
- Apply the use of opioids to dentistry.
- Summarize the principal indications for the use of antimicrobial agents.

13. Name and describe the major adverse reactions and disadvantages associated with the use of anti-infective agents.
14. Discuss penicillin, macrolides, tetracycline, cephalosporin, their chemical makeup, properties, mechanisms of action, uses, and potential adverse reactions and name several specific types.
15. Discuss the use of anti-infectives and antibiotics in dentistry.
16. Name several types of antifungal agent and discuss their indications in dentistry.
17. Describe the various drugs and drug combinations used to treat acquired immunodeficiency syndrome.
18. Discuss the history and reasons for the use of local anesthetics in dentistry.
19. Explain the mechanism of action, pharmacokinetics, pharmacologic effects, and adverse reactions of local anesthetics.
20. Describe the types and workings of each of the drugs used in local anesthetic solutions.
21. Describe how general anesthesia works and the stages and planes involved.
22. Compare and contrast the classifications of general anesthesia.
23. Discuss the use of nitrous oxide in dentistry, including how it works, the pharmacologic effects, adverse reactions, and contraindications.
24. Name and describe several types of halogenated hydrocarbons.
25. Identify and describe several other types of general anesthesia.
26. Describe the value of patient relaxation in dentistry.
27. Describe the mechanism of action, interactions, and dental relevance of the benzodiazepines and barbiturates.
28. Discuss some general precautions about which the dental practitioner should be aware with the use of anti-anxiety agents.
29. Explain the body's need for vitamins and minerals.
30. Summarize and explain how vitamins are classified.
31. Name and describe the water, and fat soluble vitamins sources recommended amounts, roles, deficiencies, adverse reactions, and clinical consideration.
32. Name several common infectious lesions of the oral cavity and summarize the treatments for each.
33. Name immune reactions resulting in canker sores and lichen planus and discuss the treatments for each.
34. Discuss treatment options for xerostomia and name several other possible drug-induced oral side effects.
35. Discuss the pharmacologic agents most commonly used to treat oral lesions.
36. Discuss the nonpharmacologic therapies that are effective in preventing caries. Discuss the proper methods that patients should use when brushing and flossing.
37. Discuss the role of fluoride in preventing caries. Cell structure and function.

Instruction Resources General

The following text will be used in this course:

Description

This course will introduce the student to general pharmacology including drug classification, uses, actions, interactions, side effects contraindications, and systemic and oral manifestations. Administration of local anesthesia as it relates to dental hygiene therapy will be addressed. Emphasis is placed on drugs commonly used in dentistry and those which modify dental care procedures. Laboratory sessions will include concepts and practice in the delivery of local anesthesia.

Prerequisite

Acceptance and continued good standing in the Dental Hygiene program

Focus

The course focused on the understanding of pharmacology, administration of local anesthetics as it pertains to diseases relating to dental hygiene

Student Contribution.

Students will be expected to attend lecture, read and complete assignments, commit sufficient time to preparing for the course, and contact instructor regarding absences, missed assignment and educational assistance. The student should expect to spend a minimally 6-8 hours per week of reading and studying time.

Evaluation

Student evaluation will include written examinations, quizzes, and class assignments. The final grade will be based upon an accumulation of total points, which will be converted to the following percentages:

A= 100-93%

B= 92-85%

C = 84-78%

D = 77- 75%

F = 74 – 0%

Students will not be allowed to make-up missed assignments/exams unless the student has contacted the instructor prior to or on the day of absence.

Grading shall be determined by the following breakdown.

Quizzes	20%	160 points
Homework/ assignments	20%	110 points
Exams	30%	260 points
<u>Competencies</u>	<u>30%</u>	<u>150 points</u>
	100%	680 points

Student Contribution

Students will be expected to attend lectures and laboratory sessions, read, complete assignments and laboratory exercises, and commit sufficient time for class preparation. Students must contact instructor regarding absences and missed assignments and educational issues.

Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting the course, divisional and institutional goals. From time to time, some of the activities' and assignments that we do will be used to assess these goals. While assessment results may be shared with others at the college, your personal result will remain confidential.

Non –discrimination Statement

It is the policy of Indian Hills Community College to provide equal educational and employment opportunities and not to illegally discriminate on the basis of age, race, creed, color, sex, sexual orientation, gender identity, marital status, national origin, religion, genetic information or disability in its educational programs, activities or its employment and personnel policies. It is the further policy of Indian Hills Community College that no retaliatory action shall be taken against any person exercising their rights as an employee or student irrespective of the outcome of any procedure instituted hereunder.

Inquiries or grievances related to this policy may be directed to Bonnie Campbell, Director of Human Resources/Equity Coordinator, 5252 Grandview, Ottumwa, IA 52501, 641-683-5108; the Director of the Iowa Civil Rights Commission in Des Moines; the Director of the Region VII Office of the United States Equal Employment Opportunity Commission or the Director of the Region VII Office of Civil Rights, United States Department of Education in Kansas City, Missouri.

Disability Services/Accommodations

Individuals with disabilities who require accommodations or special services should contact IHCC Disability Services for assistance. Services are available to students who need classroom accommodations, interpreters, and/or specialized equipment. Students enrolling in credit programs should make their request for accommodations at the time they are applying for admission and if preferable, no later than six weeks prior to the beginning of each academic term. All student requests are dealt with in a confidential manner. Students should contact the Ottumwa Disabilities Center by calling 641-683-5749. Centerville students should contact the Academic SUCCESS Center at 641-856-2143, ext.2214 or email disabilityservices@indianhills.edu.

Academic Dishonesty

Academic Dishonesty will be treated seriously. At a minimum it will result in a loss of credit for the assignment. The obvious penalty is a 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating.

The stringency of this policy is understandable when read in the context of educational program-preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Cell phones are disruptive during lectures and labs. They lend themselves to suspicion during evaluative procedure's as well. They must be kept in a purse/ book bag (turned Off) or in your locker during class and lab. If you have a potential emergency, arrangements may be made with the instructor for cell phone monitoring. This is for emergency situations only.

LEARNING OBJECTIVES

Upon successful completion of this course, the student will be able to:

1. use the PDR to identify drugs and their effects.
2. discuss the absorption, distribution, metabolism, and excretion of drugs by the body.
3. list and describe characteristics of drug actions.
4. identify factors that influence drug effects.
5. identify types of adverse reactions and methods for avoiding and treating them.
6. recognize the parts of a prescription including abbreviations.
7. review the actions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
8. recognize commonly used adrenergic and adrenergic blocking agents including their actions, adverse effects, and interactions with other drugs.
9. discuss perception and reaction as components of the pain response.
10. recognize commonly used analgesics including their actions, adverse effects, and interactions with other drugs.
11. recognize commonly used general and local anesthetics including their actions, adverse effects, and interactions with other drugs.
12. identify indications and contraindication for use of antibiotics.
13. discuss the selection of an antimicrobial agent.
14. recognize commonly used antibiotics, anti-infectives, anti-viral, and antifungal agents including their mechanisms of action, adverse effects, uses, and interactions with other drugs.
15. discuss the prophylactic use of antibiotics including the agent of choice and the regimen to be followed.
16. discuss the need for anxiety control in dentistry.
17. recognize commonly used sedative-hypnotic and anti-anxiety drugs including their actions, adverse effects, and interactions with other drugs.
18. describe and demonstrate the use of nitrous oxide sedation including its advantages, disadvantages, indications, and contraindications.
19. describe the effects of various chronic diseases on the oral cavity and dental treatment.
20. recognize drugs commonly used in treatment of chronic diseases and their potential effects on dental treatment.
21. identify interactions that are likely between drugs used in treatment of chronic diseases and those used in dental treatment.
22. recognize the contents of an emergency drug kit including their uses and adverse effects.

23. describe methods for preventing emergencies and ways to prepare for potential emergencies.
24. describe common emergency situations and demonstrate the dental hygienist's role in basic emergency treatment.
25. discuss issues concerning pharmacology and the elderly.
26. discuss drug abuse among dental clients.
27. discuss drug abuse, including alcohol, among dental personnel.

DHY 206 – Pharmacology & Anesthesiology

Quiz A – Drugs Affecting the

ANS Name _____ Module #2

Circle the letter for the **best response** to each of the following multiple choice items. There is only one (1) correct answer for each item.

1. Which of the following best describe the sympathetic autonomic nervous system?
 - a. Craniosacral and energy conserving
 - b. Craniosacral and diffuse
 - c. Thoracolumbar and energy conserving
 - d. Thoracolumbar and diffuse

1. Which of the following best describe the parasympathetic autonomic nervous system?
 - a. Craniosacral and energy conserving
 - b. Craniosacral and diffuse
 - c. Thoracolumbar and energy conserving
 - d. Thoracolumbar and diffuse

2. Which of the following is a neurotransmitter that functions in both the PANS and the SANS nervous systems?
 - a. Acetylcholine

- b. Epinephrine
 - c. Norepinephrine
 - d. Tubocurare
3. The adrenal medulla is part of the adrenal gland. Where is it located?
- a. At the base of the brain
 - b. In the spinal cord
 - c. On the kidneys
 - d. Near the heart
4. Parasympathetic (PANS) stimulation has three effects on the eye:
- a. Pupil dilation, accommodation for near vision and stimulation of tear formation
 - b. Pupil constriction, accommodation for far vision and stimulation of tear formation
 - a. Pupil dilation, accommodation for far vision and inhibition of tear formation
 - b. Pupil constriction, accommodation for near vision and stimulation of tear formation
5. Patient Jones has myasthenia gravis. His doctor prescribes pilocarpine to treat the condition. Mr. Jones also has diabetes, high blood pressure, cardiac disease and asthma. Which of these conditions is most likely to be adversely affected by pilocarpine, based on its pharmacological effects:
- a. Diabetes
 - b. High blood pressure
 - c. Cardiac disease
 - d. Asthma
6. The primary mechanism for inactivation of acetylcholine is:
- a. Breakdown of acetylcholine by an enzyme in the synapse
 - b. Reuptake of the chemical unchanged by the nerve that secreted it
 - c. Reuptake of the chemical unchanged by the affected nerve or tissue
 - d. Secretion of an antagonist by the receptor site
7. The general term for nerves that carry impulses away from the spinal cord:
- a. Afferent
 - b. Post ganglionic
 - c. Efferent
 - d. Synaptic
8. The specific effect of an indirect acting parasympathomimetic (indirect cholinergic) drug is to:

- a. Prolong the effects of norepinephrine thereby extending its action on the organ
 - b. Prolong the effects of epinephrine
 - c. Prolong the effects of nicotine
 - d. Prolong the effects of acetylcholine thereby extending its parasympathetic action on the organ
9. Drug X has strong Beta 1 antagonist (sympatholytic) activity. Which of the following organs is most likely to be affected by its action, based on class discussion?
- a. Arteries
 - b. Eye
 - c. Heart
 - d. Uterus
 - e. Lungs
10. Contraction of the iris causes formation of a small pupil. This is called:
- a. Mydriasis
 - b. Bradycardia
 - c. Miosis
 - d. Photophobia
11. A serious side effect of overexposure to organophosphate insecticides is a syndrome called SLUD. This syndrome is best explained as:
- a. SANS stimulation causing excessive fluid secretions
 - b. PANS stimulation causing excessive fluid secretions
 - c. Adrenal medulla stimulation, resulting in hypotension and then cardiac arrest
 - d. Blockade of PANS neurotransmitters causing reduced fluid secretions
12. The two different pharmacology drug classes that would have essentially the same effects of bronchial dilation, increased heart rate and decreased GI motility are:
- a. Sympathomimetic and a parasympathomimetic
 - b. Sympatholytic and a parasympatholytic
 - c. Sympathomimetic and a parasympatholytic
 - d. Parasympatholytic and a parasympathomimetic
13. Which drug pharmacology class would produce both xerostomia and photophobia:
- a. Sympatholytic
 - b. Sympathomimetic
 - c. Parasympathomimetic
 - d. Cholinergic
14. Which of the following organs has beta 2 receptors:
- a. Lungs
 - b. Muscles

- c. Heart
 - d. GI tract
15. Nicotine is a potent drug that can cause death in low doses. Nicotine works by stimulating which of the following areas of the autonomic nervous system:
- a. Synapses of post ganglionic SANS
 - b. Synapses of post ganglionic PANS
 - c. Ganglia (synapses) between pre & post ganglionic neurons of both the SANS and PANS
 - d. Synapses of post ganglionic somatic
16. The somatic system is a branch of the efferent nervous system. The following statement best characterizes this system:
- a. Voluntary muscle control with pre and post ganglionic neurons
 - b. Involuntary muscle control with pre and post ganglionic neurons
 - c. Voluntary muscle control with no ganglion
 - d. Involuntary muscle control with no ganglion
17. Scopolamine is an anticholinergic that penetrates the blood brain barrier. It is used primarily for:
- a. Producing a dry field
 - b. Eye tests
 - c. Motion sickness
 - d. Treatment of myasthenia gravis
18. Administration of epinephrine would have the following effects on the heart:
- a. Increased chronotropic and decreased ionotropic
 - b. Decreased chronotropic and increased ionotropic
 - c. Increased chronotropic and increased ionotropic
 - d. Decreased chronotropic and decreased ionotropic

EXTRA CREDIT:

1. Translate these latin abbreviations into a prescription that could be read by a patient: Sig: 2 tabs PO tid pc & qhs prn headache
2. Drug X has an ED50 of 10mg and a LD50 of 120mg. What is the therapeutic index of drug X? Is this therapeutic index considered relatively safe or unsafe, from a patient safety perspective? (Both answers must be correct for credit on this question)

DHY 208 Periodontology

Fall 2016

Instructor Contact Information

Jody Williams

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Course Description

(Credits: 2) This course is a study of the basic etiology and current classification of periodontal disease. Emphasis will be placed on clinical and histological characteristics of periodontal disease processes, including discussion of contemporary periodontal practices.

Prerequisites

Required: none

Required Textbooks

Beemsterboer, P. & Perry, D. (2014). *Periodontology for the dental hygienist, 4th edition*. Saint Louis: Elsevier

Darby, M. & Walsh, M. (2015). *Dental hygiene theory and practice, 4th edition*. Saint Louis: Elsevier chapters 19-20

Course Focus

The focus of this course is on the understanding of periodontal diseases and diagnostics. Instructional strategy will include lectures and study objectives

Course Goals/Student Learning Outcomes

1. Compare the connective tissues of the normal periodontium to those having periodontal diseases.
2. Describe the physiology of bone formation and remodeling.
3. Describe the role of bacteria in the initiation and progression of periodontal disease.
4. Compare the composition and formation of supragingival and subgingival plaque.
5. Describe the histopathological changes of the periodontium during gingivitis and periodontitis.
6. Discuss the relationship of the inflammatory response to periodontal diseases.
7. Discuss the relationship of the immune host response to periodontal diseases.
8. Describe a comprehensive classification of periodontal diseases.
9. Compare the AAP's latest classification system based on clinical, radiographic, and historical data vs. the former one based upon client's age.
10. Categorize client cases utilizing common features of periodontal diseases and AAP's criteria.
11. Describe and demonstrate the procedure for obtaining information from the medical and dental histories, oral radiographic examination, indices, and periodontal chartings
12. Evaluate radiographs for alterations in the teeth and periodontium
13. Identify risk factors related to the development and treatment outcome of periodontal diseases.
14. Discuss the interrelationship between occlusal trauma and periodontitis.
15. Describe the role of the dental hygienist in occlusal therapy.
16. Compare the types of gingivitis according to the AAP's classification system.
17. Review case-based scenarios of extra and intraoral examinations identifying normal and abnormal conditions and determine the dental hygiene diagnosis, the dental hygiene care plan, intervention, and evaluation plan.
18. Compare the types of periodontitis according to the AAP's classification system
19. Review case-based scenarios of extra and intraoral examinations identifying normal and abnormal conditions and determine the dental hygiene diagnosis, the dental hygiene care plan, intervention, and evaluation
20. Determine the significance of gingival recession as it relates to periodontal diseases.

21. Differentiate between the possible causes of recession and how this relates to abnormal healthy tissue vs. disease.
22. Analyze periodontal charting statistics to determine the progression/regression of recession.
23. Identify and compare personal and professional mechanical and chemical plaque control techniques.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

Week	Topic	Quiz/Tests/Lab	Goal #
1	Introduction to periodontology 208 review course syllabi Chapter 1 discussion	Periodontal disease research paper discussion on historical perspectives on periodontology	
2	Discussion Chapter 2-3 periodontium Anatomic characteristics and host response; epidemiology	Quiz chapter 1 Anatomy chart labeling, physiology of bone formation and remodeling	1,2,3,4
3	Discussion chapters 4-5 microbiology of periodontal disease, calculus and other disease associated factors	Quiz chapter 2-3 composition and formation of supragingival and subgingival plaque Evaluate predominant bacterial species associated with periodontal disease	1,2,3,4,5

4	Discussion chapters 6-7 gingival diseases, periodontal disease	Quiz chapter 4-5 Discuss types of gingival, periodontal diseases and Inflammatory response, host response	1,2,3,4,5,
5	Discussion Chapters 8-9 clinical periodontal assessment and systemic factors influencing periodontal disease	Quiz chapter 6-7 AAP's classification system, systemic factors demonstration procedure for obtaining information from medical and dental histories, digital images, indices and perio chartings relationship of occlusion and periodontitis	6,7,12,16,17
6	Midterm test chapters 1-9 Discussion chapters 10-11 Treatment planning for the periodontal patient; Occlusion and TMJ disorders	Mid term test 100pts Intervention, Goals, outcomes with treatment plan case studies Self care plan with personal and professional mechanical chemical control techniques, instrument adaptation for periodontally compromised patient Biologic basis, assessment of TMJ, trauma	1,2,3,4,5,6,7, 14,15
7	Discussion chapters 12-13 Biofilm and Disease control of periodontal patient;	Quiz chapters 10-11 Oral hygiene, chemotherapeutics, non surgical	9,10,17,18,

	nonsurgical periodontal therapy	periodontal therapy appointment procedures	
8	Discussion chapters 14-15periodontal surgery and Dental Implants	Quiz chapters 12-13 current surgical procedural techniques and complications, bone grafts, guided tissue regeneration Implant techiques complications	9,10,14,15
9	Discussion chapters 16-17 Periodontal emergencies; periodontal maintenance and prevention	Quiz Chapters 14-15 Pharmacologic agents for treatment chronic & acute abscesses, NUP, NUG HSV-1 case studies	17,18,19
10	Week 9 Quiz Discussion chapter 19&20 Darby & Walsh Dental Hygiene Theory and Practice	Quiz Chapters 16-17 Discuss risk assessment and impact of periodontal infections on overall general health	20,21,23
11	Week 10 quiz Discussion 21 Dental Hygiene Diagnosis Review for final	Quiz D&W Chp 19-20 Gingival and periodontal diagnosis case studies	1,2,3,4,5,6,7,8,9, 10,11,12,13,14, 15,16,17,18,19,20,21,22,23
12	Final Exam		1,2,3,4,5,6,7,8,9, 10,11,12,13,14, 15,16,17,18,19,20,21,22,23
12	Final Exam	100 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class or lab you must call and let me know.

Course Points

8-Quizzes total	400points
1-Midterm total	100points
1-Final total	100points
<u>1-research paper</u>	<u>100points</u>
	700points

Name: _____

Research Paper Rubric

	4	3	2	1
Content and Focus	<ul style="list-style-type: none"> ▪ Exceptionally clear, focused, interesting thesis. ▪ Strong, rich supporting details and examples that prove thesis. ▪ A meaningful conclusion explaining the importance of the research and how it can be used. 	<ul style="list-style-type: none"> ▪ Clear thesis which maintains a consistent focus from beginning to end. ▪ Specific supporting details are present. ▪ A clear conclusion as to why the research is important. 	<ul style="list-style-type: none"> ▪ Contains thesis but with inconsistent focus. ▪ Generalized supporting details that prove thesis. ▪ Conclusion tends to summarize research. 	<ul style="list-style-type: none"> ▪ Thesis statement lacks clarity and focus. ▪ Inadequate or missing supporting details. ▪ Missing a summarizing conclusion
Organization	<ul style="list-style-type: none"> ▪ Strong introduction and conclusion. ▪ Consistent and coherent logical progression. ▪ Uses clear and skillful transitions. 	<ul style="list-style-type: none"> ▪ Clear introduction and conclusion. ▪ Illustrates some consistency and shows some logical progression. ▪ Uses clear transitions. 	<ul style="list-style-type: none"> ▪ Introduction and conclusion is present but not clear ▪ Show some attempt of consistency and order. Paper shows attempt of transitions between paragraphs. 	<ul style="list-style-type: none"> ▪ Unable to clearly identify introduction and conclusion. ▪ Lack of consistency and order. ▪ Paper shows little or no attempt of transitions between paragraphs.
Style	<ul style="list-style-type: none"> ▪ Written in formal language (avoids slang completely). ▪ Elaborate and colorful language. ▪ Consistently strong and varied sentence structure. ▪ Direct quotes support student's ideas. ▪ Paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Majority of paper written in formal language. ▪ Language appropriate to topic. ▪ Words convey intended message. ▪ Direct quotes support student's ideas. ▪ Majority of paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Some use of formal language recognized; informal language is dominant. ▪ Most language is appropriate to topic. ▪ Able to get vague idea of message. ▪ Some parts of paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Paper frequently uses informal language. ▪ Language is not appropriate to topic. ▪ Message is unclear. ▪ Majority of paper is plagiarized.
Sources/Format	<p>Follows MLA guidelines:</p> <ul style="list-style-type: none"> ▪ Uses 5 or more cited sources. ▪ Sources meet the guidelines for types of sources. ▪ All parenthetical documentation is MLA correct (author's name, pg. #). ▪ Works Cited page is MLA correct. ▪ All researched info is documented. 	<p>Follows MLA Guidelines with few exceptions:</p> <ul style="list-style-type: none"> ▪ 3-4 cited sources used. ▪ Sources meet the guidelines for types of sources. ▪ Few errors noted in parenthetical documentation ▪ Majority of Works Cited page is MLA correct. ▪ Most research info is Documented. 	<ul style="list-style-type: none"> ▪ Inconsistent use of MLA style guidelines. ▪ Less than 3 cited sources used. ▪ Majority of parenthetical documentation done incorrectly. ▪ Random MLA documentation. ▪ Rarely documents sources. 	<ul style="list-style-type: none"> ▪ Fails to follow MLA style Guidelines. ▪ Less than 3 cited sources used little or no parenthetical documentation. ▪ Works Cited page is not understandable.
Conventions	<p>Superior editing. Rarely makes errors in the following areas:</p> <ul style="list-style-type: none"> ▪ Spelling and mechanics. ▪ Correct usage and grammar. 	<p>Careful editing. Makes few errors in the following areas:</p> <ul style="list-style-type: none"> ▪ Spelling and mechanics ▪ Correct usage and grammar 	<p>Some evidence of editing:</p> <ul style="list-style-type: none"> ▪ Extensive spelling and grammatical errors. 	<p>Poor editing:</p> <ul style="list-style-type: none"> ▪ Spelling and grammatical errors make it difficult to read paper.

Score: _____ / 4

Evaluated by: _____ Date: _____

Grading Scale

Letter	% Range
A	93-100

B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I Background for the study of periodontology

Objectives:

Upon completion of this unit, the student will be able to:

1. Describe the historical development of the profession of dental hygiene.
2. Explain how we know that preventive oral health has been a concern through the ages.
3. Define the roles and opportunities for the dental hygienist.
4. Explain the effects of improved dental equipment and operatory design on working conditions for the dental hygienist.
5. Describe the roles of the dental hygienist as defined by the American Dental Hygienist Association.

Outline:

- a. Ancient evidence of periodontal disease and its treatment.
- b. The middle ages
- c. The development of modern dentistry
- d. Establishing formal dental education 1800-1900s
- e. Interrelationship of early periodontics to dental hygiene
- f. Development of the profession of dental hygiene
 - i. First hygienist
 - ii. First dental hygiene schools
 - iii. Licensure and regulation
 - iv. School programs for children

- v. Recognition of periodontics as a specialty
- vi. Instruments for evaluating and treating periodontal diseases
- g. Developments in the treatment of periodontal diseases
 - i. Understanding the causes of periodontal diseases
- h. Developments in treatment
- i. Periodontal education in schools of dentistry
 - i. Specialty programs in periodontology
 - ii. Growth of research
- j. Dental hygiene in dental education programs
- k. Role of the dental hygienists in periodontics: 1913 and beyond
 - i. Changes in dental hygiene practice
 - ii. Care delivery techniques improve
- l. Expanding role of the dental hygienist
 - i. dental hygiene practices
- k. Responsibilities of the profession of dental hygiene

Content: Periodontium: anatomic characteristics and host response

Objectives:

1. Identify the tissues of the periodontium
2. Describe the anatomy and clinical characteristics of the tissues of the periodontium
3. Differentiate among the three types of oral epithelial surface: keratinized, parakeratinized, and nonkeratinized.
4. List the function of the periodontal ligament.
5. Describe clinically normal gingiva in terms of color, size contour, texture, and consistency.
6. Describe the interactions of the major elements in the host response.
7. Define the protective roles of gingival fluid and saliva.

Outline:

- a. Anatomic characteristics of the periodontium
 - i. gingiva
 - Epithelium
 - Oral and outer epithelium
 - Sulcular epithelium
 - junctional epithelium
 - gingival connective tissue
- b. Periodontal ligament
 - i. fiber bundles
 - ii. physiologic mesial migration or drift
- c. Cementum
- d. Alveolar process
 - a. Alveoli
 - b. Compact bone

- c. Cancellous bone
- d. Variations in normal structure
- e. Attachment apparatus
- e. Blood and nerve supply
- f. clinical condition of the periodontal tissues
 - a. color
 - b. texture
 - c. size
 - d. shape/contour
 - e. consistency
 - f. sulcus depth
- g. Aging and the healthy periodontium
 - a. Host response
 - b. inflammatory cells
 - i. lymphocytes
 - ii. polymorphonuclear leukocytes
 - iii. mast cells
 - iv. macrophages
 - v. auxiliary cells
- h. effector molecules
 - a. antibodies
 - b. complement
 - c. cytokines
- i. Hypersensitivity (allergic) reactions
- k. Other protective responses in the oral environment
 - a. gingival or sulcular fluid
 - b. saliva

Content: Epidemiology of Periodontal Diseases

Objectives:

1. Explain the relationship of this discipline to the identification and treatment of gingival and periodontal disease.
2. Compare and contrast the plaque, calculus, bleeding and periodontal indices that are used to quantify conditions in the oral cavity.
3. Explain how population scoring systems are applied to the diagnosis and treatment of disease.
4. Describe the national prevalence data relating to tooth loss and gingival and periodontal disease.
5. State the prevalence of aggressive periodontitis.

Outline

- a. Epidemiology
- b. Review of important indices

- i. plaque debris indices
 - ii. Plaque index of Silness and Loe
 - iii simplified oral hygiene index of Greene and Vermilion
 - iv. calculus indices
 - v. gingival index of Loe and Silness
 - vi. Sulcus bleeding index
- c. Indices of periodontal disease
 - i. Russels periodontal index
 - ii. Periodontal disease index of Ramfjord
 - iii. gingivitis
 - iv. Periodontal Disease
- d. Other indices
 - i. community index of periodontal treatment needs
 - ii. gingival fluid flow
 - iii. Periodontal screening and recording
 - iv. Miller index of tooth mobility
- e. gingivitis
- f. Periodontal disease
 - i. percentage with disease
 - ii. gender
 - iii. Socioeconomic status
 - iv. education level
 - v. Race and Ethnicity
 - vi. smoking history
 - vii. Senior adults aged 65 and over
 - viii. systemic disease

Content: Microbiology of periodontal diseases

Objectives:

1. Describe the development of supragingival and subgingival plaque biofilms.
2. Compare the compositions of supragingival and subgingival plaque biofilms.
3. Describe the role of saliva in pellicle formation.
4. Define the mechanisms for bacterial plaque biofilm adherence to tooth surfaces.
5. Describe the influence of bacteria surface components on a bacterial colonization and coaggregation.
6. Describe and classify the specific bacteria associated with the major periodontal infections: gingivitis, chronic periodontitis, localized aggressive periodontitis, and necrotizing ulcerative gingivitis and periodontitis.

7. Discuss plaque biofilm microbial succession in terms of oxygen and nutrient requirements and bacterial adherence.

Outline:

- a. Bacterial characteristics
 - i. Morphotypes
 - ii. Cell wall characteristics
 - iii. gram positive bacteria
 - iv. gram negative bacteria
 - v. Cell surface appendages
 - vi. Oxygen environment
 - vii. Bacterial metabolism
- b. Classification of periodontal bacteria
 - i. Oral microbial ecosystems
 - a. dorsum of tongue
 - b. oral mucosal surfaces
 - c. Saliva
 - d. tooth surfaces
- c. Supragingival Plaque Formation
 - i. step 1: pellicle formation
 - ii. step 2: initial bacterial colonization of pellicle
 - iii. Step 3: Growth and maturation of plaque
 - Extracellular polysaccharides
 - Bacterial coaggregation
 - Microbial succession
- d. Subgingival plaque formation
 - i. subgingival environment
 - ii. microbiologic composition
 - tissue associated subgingival plaque
- e. periodontal microbiota
 - i. subgingival health
 - ii. Chronic periodontitis
 - iii. Localized aggressive periodontitis
 - iv. Generalized aggressive periodontitis
 - v. Necrotizing ulcerative gingivitis and periodontitis
- f. Virulence of periodontal pathogens
 - i. proximity to the tissue
 - ii. evasion of host defenses
 - iii. tissue destruction
 - a. Direct effects
 - b. Indirect effects
 - iv. Plaque control

vi. Periodontal therapy

Unit II Foundations of periodontal therapy

Content: Calculus and other disease-associated factors

Objectives:

1. Describe the role of dental calculus and other disease-associated factors in the initiation and perpetuation of gingival and periodontal disease.
2. Describe the formation and attachment of supragingival and subgingival calculus in the oral environment.
3. Describe the distribution of calculus deposits
4. compare the composition, distribution, and attachment of supragingival and subgingival calculus.
5. Explain how anticalculus agents work in reducing calculus formations in humans.
6. List the variety of factors that are linked to periodontal disease.

Outline:

- a. Calculus
- b. Subgingival calculus
- c. Supragingival calculus
 - i. attachment to the tooth structure
 - ii. formation, distribution, and components
- d. Pathogenesis
- e. Plaque retention factors
 - i. dental restorations
 - ii. removable partial dentures
- f. conditions affecting periodontal health
 - i. Orthodontic appliances
 - ii. Malocclusion
 - iii. Unreplaced missing teeth
 - iv. Mouthbreathing
 - v. anatomic anomalies
 - vi. Tobacco and alcohol use

Content: Gingival Diseases

Objectives

1. Define the types of gingivitis
2. Relate the clinical signs and symptoms of gingivitis to the pathogenesis of each stage of disease.

3. List the similarities and differences in the clinical presentation, treatment, and healing of dental plaque biofilm-induced gingivitis and other gingival conditions.
4. Describe examples of bacterial, viral, and fungal infections that affect the gingiva.
5. Define necrotizing ulcerative gingivitis
6. List the relatively common systemic conditions that have gingival manifestations

Outline

a. gingivitis

- i. Pathogenesis
- ii. Stage I gingivitis
- iii. Stage II gingivitis
- iv. Stage III gingivitis
- v. Stage IV gingivitis
- vi. gingival recession
- vii. Dental plaque induced gingival disease
- viii. Gingivitis associated with dental plaque biofilm only
- ix. Gingival diseases modified by systemic factors
- x. Gingival diseases modified by medications
- xi. Gingival diseases modified by malnutrition
- xii. Non-plaque biofilm-induced gingival lesions
- xiii. Gingival diseases of fungal origin
- xiv. Gingival lesions of genetic origin
- xv. Gingival manifestations of systemic conditions
- xvi. Dental hygiene care

Content: Periodontal diseases

Objectives:

1. Describe the pathogenesis of periodontitis
2. Define the periodontal disease activity.
3. List and describe the American Academy of Periodontology categories of periodontal diagnosis.
4. Define clinical attachment loss and its relationship to periodontitis.
5. Compare and contrast the following forms of periodontitis as to demographics and clinical and microbiologic characteristics.
6. Identify systemic diseases and genetic factors associated with periodontal disease.
7. State the role of systemic antibiotic treatment, locally delivered controlled-release antibiotic treatment, and enzyme suppression treatment in periodontitis.
8. Describe the role of the dental hygienist in treating periodontal disease.

Outline:

- a. Periodontal pocket
 - i. pathogenesis and contents of the pocket
 - ii. disease activity
- b. Classification of periodontitis
- c. Chronic periodontitis
 - i. Clinical attachment loss
 - ii. Plaque biofilm
 - iii. Epidemiology of chronic periodontitis
 - iv. Treatment
- d. Periodontitis as a risk factor for systemic diseases
 - i. periodontitis and cardiovascular disease
 - ii. Periodontitis and preterm birth
 - iii. Periodontitis and bacterial pneumonia
 - iv. Periodontitis and Diabetes
- d. Aggressive periodontitis
 - i. early onset periodontitis
 - ii. prepubertal periodontitis
 - iii. juvenile periodontitis
 - iv. rapidly progressing periodontitis
 - v. Refractory periodontitis
- e. Periodontitis as a manifestation of systemic disease
- f. Abscess of the periodontium
 - i. periodontitis associated with endodontic lesions
- g. Developmental or acquired deformities and conditions
- h. Methods of detecting periodontal disease
- i. Etiology of periodontitis
- j. tobacco use
- k. Genetic factors promoting periodontitis
- l. Antibiotics in the treatment of periodontal diseases
 - i. systemic antibiotics
 - ii. Locally delivered controlled-release antibiotics
 - iii. Enzyme suppression therapy

Unit III Assessment of Periodontal Diseases

Content: clinical Assessment

1. Describe the connection between patients overall health and their oral health.
2. Define the aspects of clinical assessment in the dental hygiene process of patient care.

3. List and describe the indices that measure: plaque biofilm accumulation, periodontal status, furcation involvement, tooth mobility, dental caries, root caries, tooth wear.
4. Describe the intrinsic and extrinsic dental stains and their associated causes.
5. Compare and contrast normal and abnormal clinical presentation of the periodontium and dentition
6. Identify radiographic changes seen in periodontal diseases.
7. Compare and contrast normal and abnormal clinical and radiographic presentation of the periodontal structures surrounding implants.

Outline:

- a. Patient history
 - i. medical history
 - ii. dental history
- b. Patient education
- c. Clinical examination
 - i. extraoral and intraoral assessment
 - ii. oral mucosa assessment
 - consistency
 - color
 - contour
 - alveolar mucosa
 - frenum attachments
 - iii. Oral hygiene assessment
 - plaque biofilm
 - calculus
 - Dental and oral tissue stain
 - Extrinsic stains
 - Pre eruption Intrinsic stain
 - Post eruption intrinsic stain
 - iv. Periodontal assessment
 - probing measurements
 - Clinical attachment loss
 - Bleeding
 - Furcation identification and measurement
 - Tooth mobility
 - Pathologic migration of teeth
 - Periodontal considerations of implants
 - v. Dentition assessment
 - Caries
 - Restoration status

- Proximal contact relationships
- Anomalies of tooth form
- Parafunctional habits
- Tooth wear
- Abfraction
- Attrition
- Erosion
- Abrasion
- Dentiinal sensitivity or hyper sensitivity
- e. Radiographic imaging
 - i. Radiographic assessment
 - radiographic survey of periodontium
 - Radiographic appearance of periodontium
 - Radiographic changes with periodontal disease
 - Interdental septa
 - Furcation
 - Root fractures
 - Root resorption
 - ii. limitations of radiographic assessment of periodontal disease
 - iii. Radiographic assessment of dental implants
 - iv. Advancements in imaging assessments of periodontal disease
- f. Technologic advances in assessments

Content: Systemic factors influencing periodontal diseases

1. Understand systemic factors that influence dental hygiene care
2. Describe conditions that require consultation with a patients physician
3. Describe changes in oral tissues observed with systemic diseases and condition's
4. List modifications needed for optimal treatment of patients with systemic conditions.

Outline:

- a. Cardiovascular diseases
 - i. hypertension (high blood pressure)
 - Coronary artery (ischemic heart) Disease
 - ii. Diseases of heart valves
 - iii. Cardiac arrhythmias
 - iv. Congestive heart failure
- b. Joint diseases and disorders
 - i. Arthritis
 - ii. Artificial Joints

- c. Endocrine Disturbances and abnormalities
 - i. Diabetes
 - Treatment considerations
 - ii. Pregnancy
 - Treatment considerations
 - iii. Fluctuations in female sex hormone levels
 - iv. Psychological stress
 - Treatment considerations
- d. Infectious diseases
 - i. Viral hepatitis
 - Treatment considerations
 - ii. Herpes simplex infection
 - iii. Human papillomavirus infection
- e. Dermatologic diseases
 - I. Lichen planus
- f. Oral Cancer
 - I. Treatment considerations
- g. Blood Dyscrasias
 - I. Aplastic anemia, agranulocytosis, and cyclic neutropenia
 - ii. Treatment considerations
 - iii. Leukemias
- h. Neurologic disorders
 - i. Phenytoin-influenced gingival enlargement
 - Treatment considerations
- i. Tobacco use and periodontal disease

Content: Treatment planning for the periodontal patient

Objectives:

1. Describe the goals and rationale for periodontal treatment planning.
2. Define the role of the dental hygienist in determining the dental hygiene care plan.
3. Classify the phases of dental treatment included in the comprehensive care plan.
4. List the major classifications of periodontal disease.
5. Identify the considerations for sequencing dental hygiene treatment with periodontal diseases.
6. Discuss informed consent and its importance to the process of patient care.

Outline

- a. goals of treatment
 - i. dental hygiene treatment plan
 - ii. diagnosis and prognosis
- b. Phases of treatment

- i. treatment sequence
 - ii. preliminary phase
 - iii. phase I etiologic treatment
 - iv. phase II surgical treatment
 - v. Phase III restorative treatment
 - vi. Phase IV maintenance treatment
 - c. Role of the dental hygienist
 - d. Treatment planning for periodontal disease
 - i. informed consent
 - e. Treatment planning in dental hygiene
 - i. dental hygiene care plan
 - ii. reevaluation
 - iii. Dental hygiene process of care
- Content: Occlusion and temporomandibular disorders
 - a. Biologic Basis of occlusal function
 - i. Trauma from occlusion
 - b. Temporomandibular disorders
 - i. Cause
 - ii. Categories of temporomandibular disorders
 - oral habits
 - iii. Signs and symptoms of temporomandibular disorders
 - c. Screening for temporomandibular disorders
 - i. Subjective questionnaire
 - ii. Assessment of clinical jaw function
 - Muscle palpation
 - Mandibular movement
 - Joint function
 - Joint sounds
 - d. Assessment of occlusion
 - i. Intercuspal position
 - ii. Protrusive, lateral, and medial excursive movements
 - iii. tooth mobility and wear
 - iv. Radiographic evaluation
 - e. The comprehensive examination
 - f. treatment of Temporomandibular disorders
 - i. treatment methods
 - Home therapy
 - Physical therapy
 - Occlusal Appliances
 - Behavioral therapy
 - Pharmacologic therapy

Surgical therapy
Irreversible treatments

Unit IV Treatment for periodontal Diseases

Content: Plaque biofilm and disease control for the periodontal patient

Objectives:

1. List the goals for plaque biofilm control for the periodontal patient.
2. Recognize the role of plaque biofilm removal as an essential element in dental hygiene treatment for patients with periodontal disease.
3. Describe why plaque biofilm control is more complex for periodontal patients than for those without clinical attachment loss.
4. Evaluate interproximal plaque biofilm removal techniques that permit access to root surface concavities and furcations.
5. Differentiate the methods for toothbrushing and interproximal plaque biofilm removal for patients with periodontal disease.
6. Compare the effectiveness and uses of supragingival and subgingival irrigation
7. Describe the role of motivation in gaining compliance of patients for plaque biofilm control programs.

Objectives:

- a. Plaque as a biofilm and an etiologic agent
- b. Goals of plaque biofilm control for the periodontal patient
 - i. Patient motivation
 - ii. Patient responsibility
 - iii. complexity of plaque biofilm control for the periodontal patient
 - iv. Caries control
 - v. Maintenance of gingival and periodontal health
- c. Mechanical plaque removal
 - i. Toothbrushing
 - ii. toothbrushing methods
 - Scrub method
 - Roll method
 - Charters method
 - Stillmans method
 - Bass method
 - Power toothbrushing
 - iii. Interproximal cleaning with mechanical aids
 - Dental floss
 - Interdental brushes
 - Toothpicks
 - Rubber tip stimulators

- iv. Irrigation
- d. Chemical plaque control
 - i. Chlorhexidine
 - Essential Oil Mouthwash (phenolic compounds)
 - Quarternary Ammonium compounds
 - Stannous Fluoride
 - Problem of delivery to the site of disease
 - ii. Subgingival irrigation
 - Office applied agents
 - Home applied agents
 - Anticalculus agents
- f. Patient Motivation
 - i. Role of reinforcement and long term rapport

Content: Nonsurgical periodontal therapy

Objectives:

1. Define nonsurgical periodontal therapy
2. Describe the short and long term goals of nonsurgical periodontal therapy procedures.
3. Identify the techniques and applications for nonsurgical periodontal therapy procedures.
4. Describe the process of healing after periodontal debridement procedures, scaling, and root planning.
5. Explain the limitations of calculus removal and the expectations for clinician proficiency
6. Describe the contributions of magnification with use of loupes, endoscopy, and microscopes to nonsurgical therapy.
7. Explain the benefits and indications of antimicrobial adjuncts to nonsurgical therapy.

Outline:

- a. Definitions for nonsurgical periodontal therapy
 - i. scaling
 - ii. root planning
 - ii. periodontal debridement
 - iii. Prophylaxis
 - iv. Polishing and stain removal
 - v. Gingival curettage
- b. Goals of nonsurgical periodontal therapy
- c. Rationale for nonsurgical periodontal therapy
 - i. Removal of causative factors
 - Plaque biofilm
 - Calculus

- ii. root smoothness
- iii. gingival curettage
- iv. Healing
 - Soft tissue healing after scaling and periodontal debridement
 - Repopulation of microorganisms after therapy
 - Clinical response
 - Sensitivity
- c. Predictiveness of results
- d. Techniques
 - i. hand instrumentation
 - Universal cures
 - Area specific cures
 - ii. Special instruments
 - Sickle scalers
 - Hoes, chisels, and files
 - iii. Expectation of competence
 - iv. Sonic and ultrasonic instrumentation powered scaling
 - Ultrasonic, and sonic devices
 - Plaque removal
 - Endotoxin removal
 - Calculus removal
 - Root smoothness: Short term goal of nonsurgical therapy
 - Healing after treatment: Long-term goal of nonsurgical therapy
 - Contraindication
 - Aerosols
 - New and old designs for tips
- e. Lasers
- f. Magnification
- g. Antimicrobial agents
 - i. Systemic antimicrobial agents
 - ii. Irrigation with antimicrobial agents
 - iii. Local delivery

Content: Periodontal surgery

Objectives:

1. Describe the rationale for periodontal surgical treatment.
2. Recognize the clinical conditions that are most likely to benefit from periodontal surgery.
3. Define the types of periodontal surgery

4. Describe the healing of tissues after periodontal surgery.
5. Define postoperative procedures
6. Describe postoperative instructions for patients receiving periodontal surgery.
7. Define the changes and modifications in plaque biofilm control required for patient after periodontal surgery.
8. Identify the role of the dental hygiene in the surgical treatment of periodontal disease.

Outline:

- a. Rationale for periodontal surgery
 - i. Advantages of periodontal surgery
 - ii. Disadvantages and contraindications of periodontal surgery
- b. General considerations for periodontal surgery
 - i. Probing pocket depth
 - ii. bone loss
 - iii. Value of the tooth
 - v. Personal plaque biofilm control of the patient
 - vi. Age and health of the patient
 - vii. Patient preference
- c. Types of periodontal surgery
 - i. Procedures for pocket reduction or elimination
 - Excisional periodontal surgery
 - Incisional periodontal surgery
 - ii. Procedures for gaining access to the root surface
 - Access flap procedures
 - iii. Procedures for the treatment of Osseous Defects
 - Osseous defects
 - iv. Procedure for correcting mucogingival defects
 - Mucogingival defects
 - Lateral pedicle grafts
 - Free gingival grafts
 - Subgingival connective tissue grafts
 - v. Procedures for regeneration of the periodontium
 - Periodontal bone grafting
 - Autografts
 - Allografts
 - Alloplasts
 - Xenografts
 - Guided tissue regeneration
- d. Procedures immediately after periodontal surgery

- i. sutures
- ii. Periodontal dressing
- iii. postoperative instruction and procedures
- d. Post- operative treatment
- e. Healing after periodontal surgery
- f. The role of the dental hygienist in periodontal surgery

Content: Dental Implants

Objectives:

1. Describe the common types of dental implants.
2. Discuss the indications and contraindications for dental implant therapy.
3. Explain why titanium is the best biomaterial available for use in dental implants.
4. Define the concept of osseointegration.
5. Compare and contrast the bone and soft tissue interfaces of implants and the natural dentition.
6. List the criteria for success used in implant therapy.
7. Describe the maintenance protocol for implant patients.
8. Evaluate the elements of appropriate home care regimens for patients with implants.

Outline:

- a. Types of Implants
 - i. subperiosteal implants
 - ii. transosteal implants
 - iii. endosseous implants
- b. Osseointegration
 - i. Biocompatibility
 - ii. Implant design and surface conditions
 - Length
 - Diameter
 - Shape
 - Surface
 - iii. State of host site and bone factors
 - iv. Loading considerations
- c. Indications and contraindications for implant therapy
- d. Teeth and Implants
- e. Success criteria
- f. Surgical procedures
 - i. Submerged two stage protocol
 - ii. nonsubmerged single stage protocol
- g. Other implant placement protocols
 - i. Immediate Implant placement after tooth extraction

- ii. Immediate loading of implants
- g. Prosthetic considerations
- h. Maintenance
 - i. Mobility
 - ii. Probing
 - iii. Indices
 - iv. radiographic imaging
 - v. Soft tissues
- i. Peri-implant disease
 - i. Microbiology
 - ii. Progression of inflammation in implants
 - iii. Recognition and treatment
- j. Dental Hygiene Care
 - i. Assessment
 - ii. Maintenance visits
 - iii. Home care
 - iv. role of the dental hygienist

Content: Periodontal Emergencies

Objectives:

1. Define the role of the dental hygienist in the recognition and treatment of periodontal emergencies.
2. Describe the etiology of periodontal abscesses.
3. Compare and contrast the signs, symptoms, and treatment considerations in patients with gingival, periodontal, and periapical abscesses.
4. Describe the distinguishing features of necrotizing ulcerative gingivitis.
5. List the identifying features of pericoronitis
6. Outline the treatment for necrotizing ulcerative gingivitis and oral herpetic lesions.
7. Describe the symptoms and oral lesions of acute herpetic gingivostomatitis.

Outline:

- a. Periodontal abscesses
 - i. acute periodontal abscesses
 - ii. chronic periodontal abscess
 - iii. Tooth loss associated with periapical abscesses
- b. gingival abscess
- c. endodontic abscess
- d. combination abscesses
- e. Pericoronitis
- f. Necrotizing Ulcerative gingivitis
- g. Acute Herpetic gingivostomatitis

Unit V: Results of periodontal therapy

Content: Periodontal maintenance and prevention

Objectives:

1. Explain the effectiveness of periodontal maintenance therapy in the prevention of disease, disease progression and tooth loss.
2. Describe the elements of a successful maintenance program.
3. State five major objectives of periodontal maintenance.
4. Define the importance of patient compliance.
5. Describe strategies to improve compliance with recommended maintenance intervals and oral hygiene regimens.
6. Recognize the signs of recurrent periodontitis and assess the factors that contribute to its development.
7. Describe the causes of root surface caries and therapeutic approaches to prevent development of this common problem.
8. Explain the theory, causes, and managements of dentin sensitivity.

Outline

- a. Sequence of periodontal therapy
- b. Effectiveness of periodontal therapy
 - i. Prevention of disease
 - ii. Prevention of disease progression
- c. Effectiveness of periodontal maintenance
 - i. Determinants of successful periodontal maintenance
- d. Objectives of periodontal maintenance
 - i. preservation of clinical attachment levels
 - ii. Control of inflammation
 - iii. evaluation and reinforcements of personal oral hygiene
 - iv. Maintenance of optimal oral health
- d. Compliance with periodontal maintenance
 - i. Compliance with recommended maintenance intervals
 - ii. Compliance with recommended oral hygiene regimens
 - iii. Strategies to improve patient compliance
- e. The maintenance appointment
- f. Components of the maintenance visit
 - i. Medical and dental history update
 - ii. Oral and dental examination
 - iii. periodontal evaluation
 - probing pocket depths
 - gingival recession
 - bleeding on probing
 - Suppuration
 - Tooth mobility

- Furcation involvement
- Mucogingival involvement
- iv. Radiographic imaging
- v. Evaluation of Plaque biofilm control
- vi. Therapeutic procedures
 - Oral hygiene instruction
 - Periodontal debridement
 - Polishing
 - Fluoride therapy
- vii. Recommendations and referrals
- viii. Establishing intervals for periodontal maintenance
- g. Recurrence of Periodontal disease
- h. Root caries in the periodontal maintenance population
- i. Risk factors of root caries
- j. Xerostomia
- k. Prevention and control
 - i. fluoride therapy
 - fluoride therapy
 - water fluoridation
 - fluoride rinses
 - Fluoride solutions and gels
 - Fluoride dentifrices
 - ii. Oral hygiene
 - iii. Diet modification
 - Nutritional counseling
- l. Dentin sensitivity in the periodontal maintenance population
 - i. theories of dentinal pain transmission
 - ii. Factors contributing to the development of dentin sensitivity
 - iii. Management of dentin sensitivity
 - plaque biofilm control
 - Chemical desensitizing agents
 - Home use agents
 - Office therapies
 - Physical desensitizing agents
- l. Role of the dental hygienist in periodontal maintenance
- m. Significance of periodontal maintenance

Content: Prognosis and results after periodontal therapy

Objectives:

1. Define prognosis
2. Describe the difference between overall prognosis and tooth prognosis
3. Compare the elements of overall prognosis with the elements of tooth prognosis.

4. List and describe the factors associated with overall prognosis.
5. Describe the expected outcomes of periodontal therapy.

Outline:

- a. Overall prognosis
- b. Individual tooth prognosis
 - i. Prognosis for common periodontal diagnoses
 - Gingivitis associated with dental plaque only
 - Plaque induced gingival diseases modified by systemic Factors
 - Plaque induced gingival diseases modified by medications
 - Gingival diseases modified by malnutrition
 - Chronic periodontitis
 - Aggressive periodontitis
 - Periodontitis as a manifestation of systemic diseases
 - Necrotizing ulcerative diseases

DHY 208 –

Periodontology

Name _____

Final Examination

J. Williams
point)

(Each question is worth 1

Select the best response for each of the following multiple choice items; then circle the letter for that response. There is only 1 correct response for each item.

Module # 1& 2 – Inflammation & Immunology & Microbiology

1. Gram negative organisms are characterized by:
 - a. an outer capsule composed of glucan
 - b. the absence of an outer cell wall

- c. cell walls containing endotoxins
 - d. cell walls containing exotoxins
2. During inflammation, rete pegs develop creating _____ which are passageways for organisms to become closer to the epithelium and connective tissue.
- a. MMP
 - b. micro-ulcerations
 - c. virulence
 - d. edema
3. Currently, the three pathogens (Red Complex) that have been implicated as the "end stages" of the confrontation between pathogenicity and resistance vs. host response are:
- a. Selenomonas, P. gingivalis, F. nucleatum
 - b. Veillonella, T. denticola, A. actinomycetemcomitans
 - c. P.gingivalis, T. forsythia, T. denticola
 - d. Lactobacillus, Streptococcus, Actinomyces species
4. In antibody immunity, when a pathogen enters the body it is engulfed by a macrophage and its antigens are pressed into the macrophage plasma membrane. The foreign antigens pressed into the plasma membrane are then recognized by _____, which in turn stimulate _____.
- a. plasma cells, B-cells
 - b. killer-T cells, B-cells
 - c. helper T cells, B-Cells
 - d. memory B-cells, killer-T cells
5. The release of chemotactic factors that cause the migration of PMN's and macrophages to specific sites is controlled by the complement system.
- a. True
 - b. False
6. Your client's free gingiva is deep red and spongy. What changes in the blood vessels would help explain this?
- a. increase in presence of B-lymphocytes
 - b. ulceration of the endothelial walls
 - c. vasoconstriction due to chemotactic elements
 - d. dilation and proliferation of capillaries
7. In chronic gingivitis, the _____ become predominant in fighting the infection.
- a. macrophages
 - b. cytokines
 - c. PMN's
 - d. Osteoclasts

8. This immunoglobulin is found in saliva and helps prevent microorganisms from attaching to mucosal surfaces.
- IgA
 - IgG
 - IgM
9. _____ produce antibodies and are formed from B-cells.
- Plasma cells
 - Memory B-cells
 - Suppressor T-cells
 - Helper T-cells
10. Outcomes of virulent periopathogens include the following except:
- bone loss
 - inflammation
 - loss of attachment
 - endotoxins

DHY 215 Final Examination

2

11. MMP's like _
destruction.

and _

cause connective tissue and bone

- IL1 and PGE
 - proteases and collagenases
 - cytokines and histamines
 - macrophages and neutrophils
12. The major pathogens that have been implicated in the etiology of periodontal diseases are the:
- P. gingivalis, A. actinomycetemcomitans, P. intermedia, T. forsythus
 - C. rectus, E. corrodens, A. actinomycetemcomitans
 - P. gingivalis, P. intermedia, Capnocytophaga species
 - A. viscosus, S. mutans, P. intermedia, Streptococcus
 - A. actinomycetemcomitans, P. gingivalis, F. nucleatum
13. High numbers of A.a would be indicative of which type of periodontitis?
- NUG
 - LAP
 - Chronic periodontitis

- d. Medication induced periodontitis
14. Filamentous anaerobes are generally:
- a. gram negative
 - b. more virulent
 - c. subgingival
 - d. motile
 - e. all of the above
15. In order for subgingival microorganisms to survive, it is necessary to have supragingival plaque present.
- a. True
 - b. False
16. It has been proposed that pathogenic microorganisms are regularly present in the oral cavity and do not cause damage to the host unless the host becomes compromised which is indicative of:
- a. a classical infection
 - b. an opportunistic infection
17. The distance between the marginal gingival and the alveolar crest (biologic width) is:
- a. ≤ 1 mm
 - b. 1-2 mm
 - c. 2-3 mm
 - d. ≥ 4 mm
18. Pg and Aa have the ability to penetrate host cells avoiding the non-specific immune response (inflammatory).
- a. True
 - b. False
19. Prostaglandin (PGE₂) released by macrophages in chronic inflammation is of special concern because it leads to:
- a. increased permeability of capillaries
 - b. formation of periodontal abscesses
 - c. resorption of alveolar bone
 - d. constriction of blood vessels
20. Low levels of IgG₂ may be the result of both genetic predisposition and non- genetic factor which impairs the defense against Gram negative bacteria.
- a. True
 - b. False
21. IL1, IL6, MMP's and PGE₂ are examples of
- a. inflammatory reducing mediators
 - b. non-specific immunity
 - c. specific, acquired immunity
 - d. pro-inflammatory mediators

22. During clinical gingivitis, the first cells to migrate through the epithelium into the sulcus are the:
- B-lymphocytes
 - Langerhan's cells
 - neutrophils
 - mast cells
23. IL, PGE, TNF, TIMP are _____ that mediate in the build up and breakdown process of tissue and bone.
- growth factors
 - cytokines
 - hormones
24. The chemical coating of the antigen which draws the phagocytes to the antigen is referred to as
- NSAID
 - opsonization
 - granulocytosis
 - diapedesis
 - permeability

Module # 3 & 4 – Assessment & Gingival Diseases

25. Gingivitis differs from periodontitis in that it does not have:
- pocket formation
 - tissue inflammation
 - loss of alveolar bone
 - punched out interdental papillae
26. The movability of a crown in a facial/lingual direction plus it vertically depresses:
- Degree of Mobility of 1 (M1)
 - Degree of Mobility of 2 (M2)
 - Degree of Mobility of 3 (M3)
27. When diagnosing radiographs, what would be missing when initial bone loss occurs:
- Cortical plate
 - Interradicular bone
 - Cribiform bone
 - PDL
28. The uniqueness of the CPITN that added more value than previous indices is that it:
- determines severity of the disease
 - measures the thickness of the plaque
 - determined gingivitis does not always lead to periodontitis

d. provides information regarding type of disease and treatment needed

29. This index improved the CPITN giving the clinician a better indication of when a detailed examination should be conducted and/or referral made.

- a. BPI
- b. BOP
- c. PDI
- d. PSR

30. In order to determine where the CAL is on the tooth, the clinician must first record the _____ accurately.

- a. GM
- b. PD
- c. JE

31. The best probe for assessing furcation involvement is a

- a. Marquis
- b. Nabers
- c. Williams
- d. Michigan O

32. Parafunctions are associated with accelerating the course of periodontal diseases.

- a. True
- b. False

33. Radiographs show the earliest signs/symptoms of periodontitis.

- a. True
- b. False

34. When periodontal researchers are attempting to discern the cause of periodontal disease, this is _____ epidemiology.

- a. analytical
- b. descriptive

35. "Classical" clinical examinations do not include:

- a. microbial testing
- b. host testing
- c. BANA
- d. all of the above

36. Smoking, systemic diseases, and inherited immunity defects, are referred to as _____

_____ because they significantly influence the susceptibility, expression, and progression of periodontal disease.

- a. markers and receptors

- b. genetic predispositions
 - c. risk factors
 - d. host factors
37. Which of the following medications is associated with gingival overgrowth?
- a. Coumadin
 - b. Ibuprofen
 - c. Phenytoin
 - d. Tylenol
38. Which of the following organisms is predominant in early gingival diseases associated with dental plaque?
- a. A.a.
 - b. P. intermedia
 - c. Streptococcus
 - d. F. nucleatum
 - e. P. gingivalis
39. What are the most likely clinical characteristics of NUG?
- a. redness, swelling, pointed papillae
 - b. necrosis, fetid odor, ulcerations, cratered papillae
 - c. pink, firm, cratered papillae, fetid odor
 - d. bone loss, fetid odor, redness, ulcerations
 - e. ulcerations, rolled margins, cyanotic
40. Gingivitis in children may persist for many years generally with the dominance of B- cell activity.
- a. True
 - b. False
41. When the coronal portion of the JE detaches from the tooth and there is swelling of the gingiva, this is called a:
- a. true pocket
 - b. perio pocket
 - c. gingival pocket
 - d. pseudopocket
42. Osteoplasty is the reshaping of the gingival margin contour to remove hyperplastic tissue.
- a. True
 - b. False
43. Which periopathogen is predominate in puberty gingivitis and pregnancy gingivitis?
- a. P. intermedia
 - b. P. gingivalis
 - c. A. a
 - d. T. denticola

44. Your client has gingival inflammation and enlargement of the interdental papillae and slight plaque accumulation. She has no loss of attachment. Her medical history reveals diabetes. What would be your periodontal classification?
- Type I – Dental plaque induced gingival disease, modified by systemic factor, associated with the endocrine system.
 - Type I – Dental plaque induced gingival disease, modified by systemic factor, associated with blood dyscrasias
 - Type I – Dental plaque induced gingival disease, modified by medication
 - Type I – Non-dental plaque induced gingival disease, gingival manifestations of systemic condition, mucocutaneous disorders
45. Drug-induced gingivitis results in gingival overgrowth with
- primary inflammation
 - secondary inflammation
46. LGE that may be associated with HIV/AIDS is recognized by the display of _____
- a bright red band along the gingival margin
 - bright red tissue including the attached gingiva
 - cratered papillae with ulcerative centers and red margins
 - enlargement of the free gingiva
47. Many of the mucocutaneous diseases are autoimmune in nature and display
- a bright red band along the gingival margin
 - bright red tissue including the attached gingiva
 - cratered papillae with ulcerative centers and red margins
 - enlargement of the free gingiva
48. The difference between NUP and NUG is the
- microorganism that is predominant
 - loss of bone
 - complaint of pain
 - cratered papillae

Module # 5 & 6 Periodontitis / Gingival Recession

49. How is chronic periodontitis (CP) BEST described?
- A degenerative disease of the periodontium characterized by bone loss.
 - A long-standing inflammatory disease that usually does not manifest itself clinically before the age of 40
 - A slowly progressive inflammatory disease that is directly related to the presence of non-specific dental plaque

50. Which one of the following forms of periodontal diseases is associated with a chemotactic defect in the polymorphonuclear leukocytes?
- chronic periodontitis
 - drug-induced gingivitis
 - dental plaque-induced gingivitis
 - localized aggressive periodontitis
 - puberty gingivitis
51. Data from a new client assessment reveal: pink, firm, pointed papillae, 7-8 mm pocket depths on the first molars and anterior incisors, no bleeding on probing, and GM is at or near the CEJ. Which periodontal disease classification would be the presumptive diagnosis?
- Generalized aggressive periodontitis
 - Chronic periodontitis
 - Localized aggressive periodontitis
 - Refractory periodontitis
 - Health, because this is arrested since there is no bleeding
52. An abscess that occurs in deep pockets sometimes associated with the incomplete detoxification or trapped irritants is termed a?
- Gingival abscess
 - Pericoronal abscess
 - Periodontal abscess
53. What was added to the AAP's Classifications of Periodontal Diseases in 1992?
- Refractory periodontal disease
 - Periodontal diseases associated with systemic diseases
 - Recurrent periodontal disease
 - Gingivitis
54. Other than chronic periodontal disease, most periodontal diseases are associated with specific microorganisms and often a compromised host response.
- True
 - False
55. When parallelism is used correctly for radiographs, the image of the alveolar crest is projected:
- coronally
 - apically
 - as it is in reality
56. When moderate to severe bone loss is probable based upon CAL measurements, the extent of bone loss should be assessed by exposing:
- Horizontal bitewing radiographs
 - Periapical radiographs

- c. Vertical bitewing radiographs
57. When the base of the pocket extends apically to the mucogingival junction, the client has:
- a. less than 4 mm of attached gingiva
 - b. more than 3 mm of attached gingival
 - c. a pseudopocket
 - d. a mucogingival problem
58. The cultural analysis of subgingival flora may be very important for clients who
- a. have systemic disorders
 - b. have gingivitis
 - c. have insurance coverage
 - d. have refractory periodontitis
59. Masking of the signs and symptoms of periodontal disease like bleeding on probing and redness may result because your client
- a. brushes and flosses thoroughly
 - b. smokes tobacco
 - c. abuses alcohol
 - d. uses antimicrobials
60. What condition should be suspected when a cuplike resorptive area at the crest of the alveolar bone is found on a radiograph?
- a. Occlusal traumatism
 - b. Plaque-induced gingivitis
 - c. Chronic periodontitis with early attachment loss
 - d. Periodontal abscess
 - e. NUG
61. The BEST recommendation to a client who smokes and is going through the initial debridement and detoxification sessions is to
- a. quit smoking
 - b. reduce smoking
 - c. not inhale
 - d. try quitting
62. The gold standard for active periodontal disease at a site is determined
- a. solely by radiographs
 - b. by a cultural analysis of the microorganisms
 - c. by disclosing areas of plaque
 - d. by a measurable loss of attachment
63. Which of the following is a source for the mineralization of subgingival calculus?
- a. salivary proteins
 - b. acquired pellicle
 - c. crevicular fluid

- d. dental plaque
64. Which of the following types of periodontitis is most likely to be limited to the maxillary &/or mandibular 1st molars and incisors?
- a. LAP
 - b. Prepubertal periodontitis
 - c. GAP
 - d. Refractory periodontitis
65. The basic difference between localized aggressive periodontitis and generalized aggressive periodontitis is that in generalized you will find the additional development of pockets in multiple sites throughout the mouth other than the first molars and incisors.
- a. True
 - b. False
66. Your client presents with extreme pain in the retromolar area behind tooth #31. Upon examination, you find the tissue to be red, edematous, and filled with a whitish exudate. Tooth #32 is partially erupted, and impacted. What presumptive diagnosis would be determined?
- a. periodontal abscess
 - b. pericoronal abscess
 - c. apical abscess
 - d. localized chronic periodontitis
67. Your client presents with extreme pain throughout his mouth. He is unable to eat anything except very bland foods and still the pain is awful. Upon examination, you notice a fetid odor, white sloughing tissues, and cratered papillae. From probing a few teeth, you determine there probably is no loss of attachment. What would be the presumptive diagnosis?
- a. NUP
 - b. LAP
 - c. NUG
 - d. Refractory periodontitis
68. When periodontal diseases do not respond to treatment and progression continues, the presumptive diagnosis could remain the same but the addition of this word may be appropriate. Which word would be added to the diagnostic statement?
- a. Aggressive
 - b. Chronic
 - c. Acute
 - d. Refractory
 - e. Recurrent

69. Arrested periodontal disease that becomes reinfected and active again is termed:

- a. Aggressive
- b. Chronic
- c. Acute
- d. Refractory
- e. Recurrent

70. Which bony defect has the best prognosis for periodontal treatment?

- a. Infrabony pocket
- b. Suprabony pocket

71. The range of destruction in the pocket wall is 1.5 to 2.5 mm; therefore, the wider the septa between two teeth, the more likely the bone loss will result in a suprabony pocket.

- a. Both statements are true
- b. Both statements are false
- c. The first statement is true, but the second is false
- d. The first statement is false, but the second is true

72. If the bone height is coronal to the JE, the pocket is referred to as:

- a. pseudo
- b. suprabony
- c. gingival
- d. infrabony

73. Which of the periopathogens is predominant in NUG/NUP?

- a. A.a
- b. P. gingivalis
- c. Spirochetes
- d. P. intermedia

- e. Peptostr
eptococcus

74. Your client data reveals that teeth # 1,16,17,32 have been extracted. The rest of the dentition is present. The PC shows that the GM is at normal height, the PD indicate 4 sites between 5mm and 6 mm. Your presumptive diagnostic statement should indicate that the severe attachment loss is:

- a. localized
- b. generaliz
ed
- c. localized, but the attachment loss is moderate

75. Recession that results from untreated periodontitis which progresses slowly is also called

- a. gingival shrinkage
- b. classical recession
- c. marginal shrinkage
- d. secondary inflammation

76. On the oral examination, it is noted that this client has a small zone of attached gingiva facial to tooth #s 24 and 25. How is the zone of attached gingiva measured?

- a. A millimeter measurement is taken from the mucogingival junction to the gingival margin, and the amount of recession is added to it.
- b. A millimeter measurement is taken from the mucogingival junction to the gingival margin
- c. The recession is measured in millimeters, and that amount is added to the probing depth
- d. A millimeter measurement is taken from the mucogingival junction to the gingival margin, and the probing depth is subtracted from it

77. The primary tissue site of "classical recession" is the

- a. facial
- b. lingual
- c. papillary

78. Teeth are often mobile with classical recession because there is less supportive PDL.

- a. True
- b. False

79. Both debridement and resective surgery result in gingival shrinkage; however,

_____ results in more loss of attachment.

- a. debridement
- b. resective surgery

Module # 7 & 8 – Periodontal Therapy & Maintenance/Implant/Geriatic

80. Secondary prevention is the prevention of initial disease process.
- True
 - False
81. Malposed teeth are more likely to have self-cleansing mechanism problems contributing to the likelihood of periodontal diseases.
- True
 - False
82. Free flowing periopathogens are the primary target for the use of
- oral irrigators
 - locally placed antimicrobials
 - systemic antibiotics
 - enzyme inhibitors
83. This product has been proven as an anti-inflammatory agent for use in toothpastes. Which one is it?
- Fluoride
 - Potassium nitrate
 - Triclosan
 - Sodium pyrophosphate
84. An example of a second generation antimicrobial that has antibacterial properties in addition to substantivity is
- Periostat
 - Atridox
 - Actisite
 - Chlorhexidine
 - Arestin
85. Which of the following BEST describes periodontal debridement and detoxification?
- Removal of hard deposits from the crown and root surfaces, and of diseased cementum from the root.
 - Removal of hard and soft deposits from the crown and root surfaces, pocket space, and wall.
 - Removal of soft deposits from the crown and root surfaces.
 - Examination of a tooth crown and root for plaque retentive factors.
86. A power scaler on the lightest setting in a pocket or sulcus could be used as a deplaquing tool.
- True
 - False

87. How does a clinician know when debridement, detoxification was sufficient?
- By the tissue response at re-evaluation
 - When the root surface is smooth
 - When a squeaky sound is heard
88. How would you determine a client's threshold level of dental plaque and calculus?
- When progression of disease is arrested
 - When calculus is reduced at SPT
 - When BOP stops
 - When plaque is reduced on follow up appointments
 - (a) and (c)
89. The intentional removal of the inflamed soft tissue lateral to the pocket wall utilizing curettes angled toward the tissue is:
- scaling
 - curettage
 - root planing
 - coincidental curettage
90. Early failures of dental implants are purely biological meaning the re-infection of periodontitis.
- True
 - False
91. The AF after an instrument number means the instrument:
- is used for root planing
 - is an area specific curette
 - has a 50% shorter face
 - has a 3mm longer terminal shank
92. The altered microflora goal following thorough periodontal debridement is the:
- decrease of Gram + organisms and the increase of Gram - organisms
 - decrease of Gram - organisms and the increase of Gram + organisms
 - decrease of both Gram - and Gram + organisms
 - increase of both Gram + and Gram - organisms
93. Power scalers appear to have an antimicrobial effect by lysing bacterial cell walls as well as the flushing action.
- True
 - False
94. You are assessing your client at the re-evaluation appointment and find that the deeper pocket depths have reduced 1-2 mm and the GM remained the same. The most likely explanation (s) for this pocket reduction would not include:
- New attachment

- b. Reattachment
- c. A long JE
- d. Tissue shrinkage

95. Your 65 year old client presents with generalized loss of attachment and bone loss. She has a history of smoking and states she has recently cut way back the amount. She is diabetic and controls it with medication and diet. Her blood pressure is 120/78. What is the greatest risk factor for this client's periodontal disease?

- a. Medications
- b. Smoking
- c. Diabetes
- d. Hypertension
- e. Stress

96. The client described in the question above has very few bleeding points upon probing. What could you attribute this to?

- a. The medications she is taking
- b. The smoking
- c. Her history of diabetes
- d. Her blood pressure readings

97. Following the initial periodontal debridement and detoxification sessions, the client would be appointed for a re-evaluation session in

- a. 4-6 weeks
- b. 10 days
- c. 3 months

98. Periodontal destruction occurs more frequently when the client is

- a. non-compliant with SPT and home self-care
- b. non-compliant with SPT intervals
- c. medically compromised
- d. compliant with self-care

99. At the re-evaluation assessment, your client presents with recalcitrant inflamed tissue in one localized area and the CAL is 6 mm from the CEJ. There is BOP in this area. You determine there is no calculus remaining, and the client demonstrates good plaque removal technique. Before referring to the periodontist for a consultation and possible surgery, what procedure would you provide at this visit?

- a. Gingivoplasty

- b. Soft tissue curettage
 - c. Localized antimicrobial placement
 - d. Scaling
100. Oral problems/conditions that occur making the elderly more susceptible to periodontitis do not include:
- a. dryness of the epithelium
 - b. more elasticity of epithelium
 - c. less dense bone
 - d. more fibrotic connective tissue
 - e. secondary inflammation due to compromised host response

DHY 245 Ethics and Jurisprudence

Fall 2016

Instructor Contact Information

Jody Williams

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Course Description

(Credits: 2) This course will include resources and processes for board application and licensure requirements, qualifications for practice, standards of practice. Other topics will include cultural diversity, legal and ethical responsibilities and sexual harassment.

Prerequisites

Required: DHY 229

Required Textbooks

Kimbrough, V. & Lautar, C. (2007). *Ethics, jurisprudence, & practice management in dental hygiene*. Upper Saddle River: Pearson

Course Focus

The focus of this course is on the application of legal and ethical situations that arise in the dental hygiene setting. Theories, legal and ethical scenarios are applied.

Course Goals/Student Learning Outcomes

Upon successful completion of this course, the student will be able to:

1. Compare the ethical standard theories.
2. State the basic principles of dental jurisprudence.
3. Describe the legal responsibilities of the dentist or dental hygienist/patient relationship.
4. Solve ethical dilemmas using a decision-making process.
5. Identify the portions of Iowa's Rules and Regulations that pertain to the practice of the dental hygienist.
6. Interpret Iowa's Rules and Regulations pertaining to the practice of dental hygiene.
7. Compare Iowa's Rules and Regulations for dental hygienists to another state's practice act.
8. Compare the Board of Dentistry's control over dental hygiene with the sources of control affecting other allied health professions.
9. Differentiate between the Board of Dentistry and the professional organizations for dentistry and dental hygiene.
10. Define the purpose and structure of the professional organizations for dental hygienists.
11. Review and explain the organizations' positions regarding licensure, dental hygiene education, professional preparation, continuing education, community dental health, and scope of practice.
12. Apply the Code of Ethics as professional standards for providing care.
13. Determine how dental hygiene can best represent its interests and the public's interest in assuming more responsibility for dental hygiene practice.
14. Identify current dental/dental hygiene situations which have philosophical and ethical basis for debate. Be able to discuss the issues and correlate them to ethical and legal codes.
15. Interpret and apply the ADEA's "Core Competencies for Entry-level Dental Hygienist."

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

Week	Topic	Quiz/ research/group projects	Goal #
1	Review of DHY 245 syllabus Introduction to DHY 245 read chapter 1 moral philosophy and reasoning	Discussion of Iowa State practice act project Bureau of Labor and statistics job outlook	1
2	Week 1 Quiz chapters 1 Discussion of chapter 2 Ethical principles and core values	Quiz 1 Moral reasoning Moral reasoning case study	1,2,15
3	Week 2 quiz 2 chapter 3 discussion Informed consent <u>What it really means</u>	Quiz 2 Ethical principles Ethical dilemma Evaluating individual core values	1,2,3,4,14,15
4	Week 3 Quiz Chapter 4 discussion Decision making	Quiz Informed Consent In class Group scenarios-decision making developing ability to solve problems	1,2,3,4,14
5	Week 4 Quiz Discussion chapter 5 Jurisprudence understanding civil, criminal law, tort	Quiz Decision Making Scenarios, Review for mid term	2,3,4,5,14
6	Mid term examination includes chapters 1-5 Discussion Chapter 6 Social Issues, workplace legislation	Mid term Individual paper cultural diversity	1,2,3,4,5,14,15
7	Week 6 quiz chapter Discussion Chapter 7 Aspects of practice management	Quiz Social Issues in class Group scenarios in the workplace	2,4,9,10,11,12
8	Week 7 quiz chapter	Quiz Aspects of Practice Management	2,4,5,6,7

	Discussion chapter 8 the business of dental hygiene		
9	Week 8 Quiz Discussion chapter 9 technology in dental hygiene	Quiz the business of dental hygiene Scenarios of ethical practice with technology	8, 9,10,11,12,
10	Week 9 Quiz Discussion chapter 10 Resume building, interviewing	Quiz Technology and dental hygiene Scenarios of interviewing understanding legal aspects of interviewing	8, 9, 10, 11, 12,13 14,15
11	Week 10 quiz chapter 11 Planning for the future Review for final	Quiz Seeking the dental hygiene position Iowa State practice acts comparison research due	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15
12	Final Exam		1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class you must call and let me know.

Course Points

Research paper	100 points
10- Quizzes	500 points
1 mid term	100 points
<u>1 final exam</u>	<u>100points</u>
Total points	800 points

Grading for quiz B as follows:

If the student fails to attain a 78% on a quiz, a Quiz B must be taken. This second chance quiz allows for the student to revisit and spend more time on the material. The grading is as follows:

Any Quiz A below 78% is required to take a Quiz B but the quiz B has points starting at 10% less than the quiz A. A B grade is the highest that the Quiz B can achieve. AS an example if you had a 57% on quiz A your score will be a no credit. You take a quiz B over the same subject material and achieve a 93%. Your score would be at the B range.

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes

cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I Foundations

Objectives:

Upon completion of this unit, the student will be able to:

1. Define the term ethics
2. Define the terms deontology and teleology
3. Distinguish between the ethical theory of utilitarianism and Kant's ethical theory
4. Compare rule utilitarianism with act utilitarianism.
5. Contrast a right with a duty and a right with a privilege.
6. Discuss the role of social justice in determining ethical behavior.

Content: Introduction to Moral Philosophy and Moral Reasoning

Introduction

- a. Ethical theories: A survey of Moral Theories
 1. Utilitarianism
 2. Kantian Ethics
 3. Virtue Ethics
- b. Social Philosophy
 1. Utilitarianism and Justice
 2. Rawls theory of Justice

Objectives:

1. Identify the core values found in the Code of Ethics of the American Dental Hygienists' Association.
2. Compare other codes of ethics found in the dental hygiene profession.
3. Define the terms autonomy, confidentiality, societal trust, nonmaleficence, beneficence, justice, veracity, fidelity, paternalism, and utility.

Content: Ethical Principles and Core Values

Introduction:

- a. Ethical principles
 - 1. Autonomy
 - 2. Confidentiality
 - 3. Societal trust
 - 4. Nonmaleficence
 - 5. Beneficence
 - 6. Justice
 - 7. Fidelity
 - 8. Paternalism/parentalism
 - 9. Utility

Objectives: Informed consent

1. Discuss the criteria necessary for informed consent.
2. Relate conditions for not obtaining informed consent.
3. Compare the ethical principles found in codes of ethics, informed consent, patients' bill of rights, and other documents related to patient care.

Content:

- b. Introduction
- c. Rights and duties involved in informed consent
- d. Evolution of the concept of informed consent
- e. Exceptions to the rule
- f. The ideal context
- g. Disclosure in the office
- h. Informed consent and research
- i. Use of photos and other recording devices
- j. Disclosure by Infected Health Care Providers
- k. Patients' Bill of Rights

Objectives: Decision Making

1. Define the term ethical dilemma.
2. List the steps involved ethical decision-making.
3. Solve ethical dilemmas using a decision-making process.
4. Determine core values and principles used to solve an ethical dilemma.
5. Discuss the role of laws in determining alternatives for solving an ethical dilemma.

Content:

- a. Ethical Dilemma
- b. Developing the ability to solve ethical problems
- c. Level and stages in Moral Development
 - a. Preconventional
 - i. Stage 1
 - ii. Stage 2
 - b. Conventional

- i. Stage 3
 - ii. Stage 4
 - c. Post conventional
 - i. Stage 5
 - ii. Stage 6
- d. Steps of Decision Making
 - a. Identifying the problem
 - b. Gathering the facts
 - c. Listing the alternatives
 - d. Selecting the Course of Action
 - e. Acting
 - f. Evaluating the Action

Objectives: Jurisprudence

1. Compare the concepts of civil law with criminal law, utilizing examples found in dental hygiene practice.
2. List the types and circumstances of supervision (or absence of supervision) found in the Dental/Dental hygiene practice acts of the jurisdiction in which you reside or attend school.
3. State the conditions necessary for a contract between a patient and a dental hygienist with regard to dental hygiene services.
4. Define and distinguish between the following terms: intentional tort and unintentional tort, malpractice and negligence, libel and slander, assault and battery, implied contract and expressed contract.
5. Discuss the rights of patients protected by law and duties of providers regulated by law from both ethical and legal perspectives.

Content:

Introduction:

- a. Criminal law
- b. Civil Law
- c. Tort Law
 - a. Professional negligence and malpractice
 - i. Standard negligence
 - ii. Contributory negligence
 - iii. Malpractice
 - iv. Respondeat superior
 - b. Assault and Battery
 - i. Technical assault
 - ii. Technical battery
 - c. Defamation
 - i. Defamation
 - ii. Slander
- d. Contract Law

- a. Abandonment
 - b. Risk Management
- e. Licensure
 - a. Educational requirements
 - b. Written Board Exams
 - c. Practical Board Exams
 - d. Other requirements for licensure
 - e. Credentialing
 - f. Certification
- f. State/Provincial Practice Act
 - a. Regulation
 - b. Scope of Practice
 - c. Supervision
 - i. General supervision practice
 - ii. Indirect supervision practice
 - iii. Direct supervision practice
 - iv. Unsupervised practice
 - v. Factors affecting levels of supervision

Objectives: Social Issues

1. Identify legislation that protects and aids in the patient and the dental hygienist against discrimination in dentistry.
2. Describe how HIPAA protects patient confidentiality.
3. Recognize the signs of abuse (child, spouse, and elderly).
4. List barriers to access to care and reasons for disparities in oral health care.
5. Discuss the advantages and disadvantages of various reimbursement or insurance plans (Medicaid, Medicare, and managed care (as they pertain to access to care and distributive justice issues.

Content:

- a. Workplace legislation
 - a. Affirmative action
 - b. Pregnancy discrimination Act
 - c. Family and Medical Leave Act
 - d. Americans with Disabilities Act
 - e. Age discrimination in employment Act
 - f. Sexual Harassment
 - g. Occupational Safety and Health Act
 - h. Health Insurance Portability and Accountability Act
- b. Reporting Domestic Violence
 - a. Domestic Violence
 - b. Child abuse
 - c. Spouse Abuse
 - d. Elderly Abuse
- c. Access to Care

- a. Disparities
- b. Managed Care
- c. Government assistance
- d. Manpower and Location Barriers
- e. Sociological and Cultural Barriers
- f. Justice

Objectives: Aspects of Practice Management

1. Discuss the need for practice management styles
2. Identify different management styles
3. Differentiate between the oral health care and the business of oral health care.
4. Discuss the team concept
5. Identify the benefits of cross training.
6. Differentiate types of staff meetings.
7. Differentiate between employer expectations and employee expectation.
8. Identify uses of public relations and image for the dental/dental hygiene practice.
9. Identify patient needs as they related to dental hygiene.
10. Discuss how marketing relates to the dental/dental hygiene practice.
11. Identify advantages and disadvantages of profit centers.

Content:

- a. Introduction
- b. Pros and Cons of Management Consultants
- c. Management Styles
- d. The Team Concept
- e. Defining Staff Roles
- f. Cross Training
- g. Staff Meetings and Their Benefits
- h. Expectations and Public Relations
 - a. Employer's Expectations
 - b. Your Expectations
 - c. Expectations of Staff
 - d. Expectations of Patients
- i. Marketing the Dental Practice
- j. Marketing the Patient's Health Care
- k. Marketing the Practice
- l. Marketing yourself
- m. Marketing Strategies
- n. Marketing and Profit Centers

Objectives: The Business of Dental Hygiene

1. Describe the scope of the dental hygiene diagnosis
2. Discuss business aspects for dental hygiene.

3. Compare alternative practice setting for dental hygienists.

Content:

- a. Introduction
- b. Maximizing skills
- c. The Business of Dental Hygiene
 - a. Overhead
 - b. Daily Schedule
 - c. Production
- d. Dental insurance and Hygiene Services
 - a. Insurance Codes and Nomenclature for Dental Hygiene Procedures
- e. Continuing Care and Recare Systems
 - a. Advanced Appointment Systems
- f. Time Management
- g. Working with Other Hygienists
- h. Alternative Practice Settings/Independent Practice
- i. Working as a Public Health Dental Hygienist
- j. Career Alternatives
- k. Lifelong Learning

Objectives: Technology and Dental Hygiene

1. Discuss the development of computer use in the dental practice.
2. Describe how computer software benefits dental hygiene procedures.
3. Describe advantages and disadvantages for intra oral cameras.
4. Identify the difference between the standard radiography and digital radiography.
5. Identify various automated periodontal charting systems.

Content:

- a. Introduction
- b. Intraoral cameras
- c. Digital Radiography
- d. Legal Considerations
- e. Computerized Periodontal Charting Systems
- f. Lasers
- g. Pain free injections
- h. Cosmetic Imaging and In-Office Fabrication of Restorations
- i. Chartless patient records
- j. Vision Enhancers
- k. Does Patient Care Suffer?
- l. How technology benefits dental hygiene
- m. Other technology options

Objectives: Seeking the Dental Hygiene Position

1. Recognize the scope of job searching.

2. Identify different employment opportunities for dental hygienists.
3. Discuss the process of interviews between employers and employees.
4. Identify the advantages and disadvantages of working interviews.
5. Identify contents and needs for office policy manuals.
6. Discuss benefits as they related to the dental hygienist.
7. Apply negotiating skills related to employee benefits.

Content:

a. Introduction

b. Working as a temporary

c. Employment Resources

d. Preparing for Interviews

i. Be proactive

ii. Begin with the end in mind

iii. The win-win outcome

1. The employers interview

2. Your interview

3. The working interview

4. Interviews and Personality tests

5. Attire

6. Leadership versus Management: Qualities and Opportunities

7. Resumes

a. Focus on content

b. Visual appearance

c. Be accurate, concise, and clear

d. Use an appropriate font and high quality paper

e. Proofread and edit

f. Include objective statement

g. Include experience

h. Include education

i. Professional Memberships

j. Credentials/licensure

k. Personal data

l. References

8. The Cover letter

9. Post interview Acknowledgements

Beginning the New Job

a. Compensation

b. Benefits

c. Negotiating

d. Employment contracts

e. Policy Manuals

Objectives: Planning for the Future and Career Longevity

1. Describe the differences between stocks, mutual funds, and IRA's
2. Explain the meaning of portfolio

3. Describe CD investments
4. Explain liability insurance
5. Explain disability insurance
6. Identify the need for self-care and physical health
7. Describe the benefits of professional membership

Content:

- a. Introduction
- b. The basics of investing
- c. Spend Money Wisely
- d. Insurance coverage for Dental Hygienists
- e. Professional Membership
- f. Self-care

Test

DHY
245

Name(2pts) _____

Dental Hygiene Ethics and Jurisprudence

Mid-Term

Jody Williams

1. Write the following terms beside their appropriate definitions:

(8pts)Direct Supervision	General Supervision
Licensed Dentist	Registered Dental Hygienist
Assignment	IDB
Patient of record	

(Use each term only once)

_____ means that a dentist has designated a patient of record upon whom services are to be performed by an assistant, registered dental assistant, or licensed dental hygienist and has described the procedures to be performed. The dentist shall examine the patient before prescribing the procedure to be performed and again upon completion of the procedure. The dentist shall be physically present in the office at the time the procedures are being performed.

_____ means the Iowa Board of Dentistry.

_____ means that a dentist has designated a patient of record upon whom services are to be performed and has instructed the assistant, registered dental assistant, registered dental hygienist, or dentist holding a limited license regarding the procedure to be performed. The dentist shall be physically present in the office during the performance of the procedures.

_____ means a patient who has been examined and diagnosed by licensed dentist and whose treatment has been planned by a licensed dentist.

_____ means a person licensed by the Board of Dentistry pursuant to the Act and these Rules.

_____ means the possession of a full license to practice, unless otherwise stated.

_____ means a person licensed by the Board of Dentistry pursuant to the Act and these Rules.

_____ means that a dentist has designated a patient of record upon whom services are to be performed by an assistant, registered dental assistant, or registered dental hygienist and has described the procedure to be performed. The dentist need not be physically present in the office or in the treatment room at the time the procedures are being performed.

2. When a healthcare professional performs a service not agreed to or touches a client in an inappropriate way, this is termed: (10 pts)
 - a. informed consent
 - b. breach of contract
 - c. technical assault
 - d. liability

3. Who was the first dentist to officially train a dental hygienist? (10 pts)
 - a. Dr. Newman
 - b. Dr. Motley
 - c. Dr. Fones

4. The dental hygienist must possess and exercise reasonable skill and judgment prevailing in the dental community/state is the definition of: (10 pts)
 - a. Negligence
 - b. Standard of Care

- c. Liability
- d. Torte

5. This woman was the first to become licensed as a dental hygienist. (10 pts)

- a. Alfie Jones
- b. Irene Woodall
- c. Ester Wilkins
- d. Irene Newman
- e. Wanda Scott

6. List two procedures in Iowa which must be performed only under direct supervision? (10 pts)

- a.
- b.

7. Unintentional tort caused by failure to meet standard of care defines: (10 pts)

- a. ethics
- b. malpractice
- c. liabilities

2

8. Dental hygienists in Iowa can work when their employer dentist is out of the office. This is termed working under general supervision in Iowa. (10 pts)

- a. True
- b. False

9. A term that is defined as "doing no harm" to your client is: (10 pts)

- a. jurisprudence
- b. nonmaleficence
- c. beneficence
- d. code of ethics

10. What advice would you give to another peer regarding how to prevent malpractice? (Give at least two pieces of advice) (10 pts)

Research rubric

Name _____ Date _____

	4	3	2	1
Organization	The report is both accurate and compelling. The writing begins with an interesting or provocative introduction that contains a clear and concise thesis statement. The body fully explores the topic and presents information in a sensible order. The conclusion restates the thesis or offers a comment or question on it. Effective and varied transitions link all ideas.	The report is accurate and clear. The writing begins with an introduction that contains a clear thesis statement. The body explores the topic and presents information in a sensible order. The conclusion restates the thesis or offers a comment or question on it. Transitions link most ideas.	The report is factual and shows evidence of some work. The writing begins with an introduction that contains a thesis statement, but this might need clarification. The body explores the topic and presents a variety of information. The organization of this information may not always be clear or logical. Some transitions are used, but more are needed.	The report is generally confusing and hard to follow. The writing lacks any real organization and it may also lack a thesis statement. The body presents support that may be related to the topic but only in a general way. The organization is poor or nonexistent. Transitions may be used inconsistently or may be lacking.
Elements of Research Reports/Papers	The writer provides facts and quotations from a variety of sources. Facts and ideas are either expressed in the writer's words or else completely and correctly documented. The body of the report supports and develops the writer's thesis, and it contains no extraneous ideas. The report in-	The writer provides facts and quotations from several sources. Facts and ideas are either expressed in the writer's words or else documented. The body of the report supports and develops the writer's thesis, and it usually exhibits unity and coherence. The report includes a complete bibliography or	The writer provides facts and quotations from more than one source. Facts and ideas are not always documented or expressed in the writer's words. The body of the report lacks real unity and coherence, although most details are somewhat related to the topic. The report includes an incomplete or incorrect	The writer provides a mixture of opinions, facts, and statements. Facts and ideas are often not expressed in the writer's words or else they lack documentation. The body of the report lacks unity and coherence, and may be difficult to understand. The report may not include a bibliography or source list, or this

	cludes a complete and correct bibliography or source list.	source list.	bibliography or source list.	may be incomplete or incorrect.
Grammar, Usage, Mechanics, and Spelling	There are few or no errors in mechanics, usage, grammar, or spelling. Word choice is precise and appropriate for the audience.	There are minor errors in mechanics, usage, grammar, or spelling. Word choice is usually appropriate for the audience.	There are numerous errors in mechanics, usage, grammar, or spelling. Word choice is not always appropriate for the audience.	Numerous errors in mechanics, usage, grammar, or spelling may hinder comprehension. Word choice shows little understanding of the audience.

Comments

DHY 290 Dental Hygiene Practicum I

Fall 2016

Instructor Contact Information

Jody Williams

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Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 6) This course will provide necessary instructional supervised practice in our on campus dental clinic. This course is designed to prepare the student to assume the role as preventative care provider. Emphasis will be placed on patient selection and treatment, clinical time management and office operations. Competency is achieved on manikins and clinic patients.

Prerequisites

Required: DHY 176 Clinical Procedures & DHY 185 Advanced Clinical Procedures

Required Textbooks

IHCC Dental Hygiene Clinic and Procedural Manual

Jeske, A (2014) *Mosby dental drug reference 11th ed.* Elsevier: Saint Louis

Darby.M & Walsh,M. (2014) *Dental hygiene theory and practice 4th ed.* Elsevier: Saint Louis

Course Focus

The course focus is to provide client centered care and facilitate client access to oral health services. the provision of oral health care and to apply the planning, implementation and evaluation phases.

Course Goals/Student Learning Outcomes

1. Demonstrate the initial and ongoing client assessment procedures.
2. Demonstrate proficiency of writing the dental hygiene presumptive diagnosis.
3. Intervention, and care plan for clients presenting with health to early periodontitis conditions.
4. Demonstrate writing the dental hygiene presumptive diagnosis, intervention, and care plan for clients with moderate to severe periodontitis conditions.
5. Present the planned treatment to the client.
6. Utilize the client's assessment data to determine the dental health education needs of the client.
7. Demonstrate the oral hygiene instructions needed for the client.
8. Provide interceptive management of client behavior for reduction of cavities and periodontal disease.
9. Demonstrate proficiency of debriding (scaling) and detoxification (root planning) utilizing manual and mechanical procedures.

Course Calendar

The course calendar outlines the course requirements to include clinical assessments, clinical examinations and instructor/student discussions. It is imperative that you make your clinic sessions. A dental unit is reserved for you. It is extremely difficult to have the open unit for you outside of this session time.

1 st session	2 nd session	3 rd session	Goal#
Scheduled Clinic session	Set personal goals for term And due dates for Dos Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
4 th session	5 th session	6 th session	
Scheduled clinic session Start instrument check off	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
7 th session	8 th session	9 th session	
Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
10 th session	11 th session	12 th session	
Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
13 th session	14 th session	15 th session	

Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
16 th session	17 th session	18 th session	
Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
19 th session	20 th session	21 st session	
Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
22 nd session	23 rd session	24 th session	
Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9,
25 th session	26 th session	27 th session	
Start processes	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9,
28 th session	29 th session	30 th session	
Scheduled clinic session Start process	Scheduled clinic session	Scheduled clinic session	
			1,2,3,4,5,6,7,8,9,
31 st session	32 nd session	33 rd session	
Scheduled clinic session	Scheduled clinic session	Scheduled clinic session	1,2,3,4,5,6,7,8,9
34 th session Scheduled clinic session	35 th All procedures finished Scheduled clinic session	Clinic cleanup	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared

prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class. This also includes no texting during class time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class or lab you must call and let me know.

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Course Outline/Student Learning Outcomes

1. Demonstrate the initial and ongoing client assessment procedures.
2. Demonstrate proficiency of writing the dental hygiene presumptive diagnosis.
3. intervention, and care plan for clients presenting with health to early periodontitis conditions.
4. With the aid of the clinical instructor, demonstrate writing the dental hygiene presumptive diagnosis, intervention, and care plan for clients with moderate to severe periodontitis conditions.
5. Present the planned treatment to the client.
6. Utilize the client's assessment data to determine the dental health education needs of the client.
7. Demonstrate the oral hygiene instructions needed for the client.
8. Provide interceptive management of client behavior for reduction of cavities and periodontal disease.
9. Demonstrate proficiency of debriding (scaling) and detoxification (root planning) utilizing manual and mechanical procedures.
10. Demonstrate proficiency of other clinical dental hygiene procedures as indicated in the CAS, i.e. antimicrobial irrigation, polishing, radiographic surveys, fluoride

- application, sealants, root desensitization, etc.
11. Demonstrate proficiency in dental hygiene clinical skills by completing process evaluations (direct observations).
 12. Demonstrate proficiency in ancillary procedures in dental hygiene care including.
 - a. sterilization: maintain asepsis in the recirculation/sterilization area and the use of biological indicators.
 - b. office management skill: utilize the technology in gathering information through the office management software.
 - c. assisting: work as team-members to help in improving the client's oral health.
 13. Demonstrate proficient professional conduct. Any gross deficiency in this area will result in a 0.0 grade.
 14. Successfully complete seminar objectives as outlined in the course assignment schedule, i.e. group problem-solving exercise, participation in the group record keeping sessions, role-playing of dental hygiene therapist/client interactions pertaining to behavior modification and management of changes, presentation of an article related to client motivation and management, introduction to new clinical skill procedures, etc.

Clinic DHY 290 Manual

IV. Learning Objectives & Specific Point Assignments

The student will be able to:

- A. Demonstrate proficiency of the initial and ongoing client assessment procedures on:**

<u>Procedure #</u>	<u>Points</u>
↓	↓
(110) (112) 1. <u>Health Histories/Oral Examinations achieving a 96% minimum quality average for 5 clients</u>	
a. a minimum of three (3) full oral examinations =	9
b. 97% quality average or higher =	10
(070)(072) 2. <u>Dental/Radiographic/Periodontal Chartings</u>	
a. 95% minimum quality average for assigned <u>dental chartings</u> =	1
b. 96% quality average or higher =	2
(071)(075) c. 80% minimum quality average for <u>radiographic chartings</u> =	1
d. 90% quality average or higher =	2
(074) e. 85% minimum quality average for assigned <u>periodontal chartings</u> =	1
f. 90% quality average or higher =	2

Procedure #

Points

B. Demonstrate proficiency of writing the dental hygiene care plan including:

- (079) 1. Dental Hygiene Diagnosis, Goal, Intervention, and Treatment
a. all assigned achieving a minimum average of 95% = 1
b. 96% quality average or higher = 2

C. Demonstrate proficiency of implementing dental health education by:

- (301) 1. Individualizing oral hygiene needs and instructions (patient education)
a. all assigned achieving a minimum average of 90% = 1
b. 95% quality average or higher = 2

D. Provide interceptive management of client behavior by:

- (502)(503) 1. Completing a plaque and/or hemorrhage reduction plan
a. a minimum of one (1) plaque &/or hemorrhage reduction client achieving a minimum quality average of 85% = 2
b. 90% quality average or higher = 3
- (507) 2. Completing nutritional assessment
a. complete a minimum of 2 nutritional assessments = 2
b. for completing additional assessments over the minimum = 3

E. Demonstrate exit level mastery of debriding and detoxification by: (001)(002)

1. Child count of 4 quadrants 2
- (001)(002) 2. Achieving a minimum quality average of 3.5 for the recommended five clients, including the minimums listed below:
a. One (1) child (4 quadrants) = 2
- (001)(003)
(004)(005) b. One (1) Health classification (4 quadrants) = 2
- (002)(006)
(007)(008) c. One (1) Gingivitis classification (4 quadrants) = 2
- (009)(010) d. One (1) Perio/sl., mod. (4 quadrants) = 2
- e. Two (2) additional client: child, health, gingivitis, periodontitis categories = 3
- f. 4.00 quality average or higher on categories a, b, c, d, or e = +1 each
- (16) 2. Moderate subgingival calculus (1 quadrant) = 2

Procedure #**Points**

Procedure #	Points
F. Demonstrate exit level mastery of total care utilizing other clinical dental hygiene procedures including:	
(015)	1. Power scaling
	a. minimum of four (4) quadrants = <u>2</u>
	b. power scaling documented for eight (8) quadrants = <u>3</u>
(020)	2. Root detoxification with Gracey curettes a minimum of one (1) quadrant (minimum of two (2) teeth per quadrant)
	a. achieving a minimum of 3.25 quality average = <u>1</u>
	b. 3.5 quality average or higher = <u>2</u>
(099)	3. <u>Antimicrobial irrigation on a minimum of eight (4) quadrants =</u> <u>1</u>
(019)	4. <u>Polishing achieving a minimum quality average of 3.5 for four (4) clients</u>
(020)	a. a minimum of two (2) rubber cup &
	b. a minimum of two (2) air abrasive = <u>2</u>
	c. 4.0 quality average or higher = <u>+1</u>
(030)	5. <u>Radiographic Surveys</u>
	a. a minimum of one (1) FMS achieving a minimum quality average of 80% = <u>3</u>
	b. 90% quality average or higher = <u>4</u>
(033)	c. a minimum of two (2) FMS on the mannequin achieving a minimum quality average of 80% = <u>1</u>
(037)	d. 90% quality average or higher = <u>2</u>
	e. a minimum of three (3) BWX achieving a minimum quality average of 85% = <u>3</u>
(039)	f. 95% quality average or higher = <u>4</u>
	g. a minimum of two (2) BWX on the mannequin achieving quality average of 85% = <u>1</u>
	95% quality average or higher = <u>2</u>
(046)	6. <u>Topical Fluoride applied to a minimum of four (4) clients =</u> <u>2</u>
(083)	7. <u>Sealant placement achieving an 80% minimum quality average for eight (8) teeth</u>
(084)	a. a minimum of two (2) chemical cured &
	b. a minimum of two (2) light cured = <u>2</u>
	c. 90% quality average or higher = <u>+1</u>
	d. four (4) additional sealants, chemical or light cured <u>2</u>
(088)	8. Root desensitization on one (1) tooth <u>1</u>
(090)	9. <u>Assess the need for follow-up appointment (s)</u>
	a. a minimum of 4 clients = <u>1</u>
	b. Follow-up assessment documented on 6 clients or more = <u>2</u>

Procedure #

Points

G. Demonstrate proficiency in dental hygiene clinical skills by completing process evaluations including:

(410)	1. <u>Two (2) Instrumentation Direct Observation- Hand Scaling and Power Scaling</u>	
	a. achieving a minimum quality average of 80% =	<u>2</u>
	b. 86 – 93% quality average =	<u>3</u>
	c. 94% quality average or higher =	<u>4</u>
(413)	2. <u>Two (2) Air Polishing Direct Observations – one mannequin and one client</u>	
	a. achieving a minimum quality average of 80% =	<u>2</u>
	b. 86 – 93% quality average =	<u>3</u>
	c. 94% quality average or higher =	<u>4</u>
(435)	3. <u>One (1) Four-handed Dental Hygiene Direct Observation</u>	
	a. achieving a minimum quality average of 80% =	<u>2</u>
	b. 86-93% quality average =	<u>3</u>
	c. 94% quality average or higher =	<u>4</u>
(445)	4. <u>One (1) Root Desensitization Direct Observation</u>	
	a. achieving a minimum quality average of 80% =	<u>2</u>
	b. 86-93% quality average =	<u>3</u>
	c. 94% quality average or higher =	<u>4</u>
(420)(422)	5. <u>Two(2) Care Planning Direct Observations (behavior change)</u>	
	a. achieving a minimum quality average of 80% =	<u>2</u>
	b. 90% quality average or higher =	<u>3</u>
(424)(426)	6. <u>Two (2) Case Presentations (behavior change)</u>	
	a. achieving a minimum quality average of 80% =	<u>2</u>
	b. 90% quality average or higher =	<u>3</u>
(455)	7. <u>Process Evaluation</u>	
	(To be completed after both 410 direct observations are completed)	
	a. achieving a minimum quality average of 80% =	<u>7</u>
	b. 86-93% quality average =	<u>8</u>
	c. 94% quality average or higher =	<u>9</u>

Procedure #

Points

H. Demonstrate proficiency in assisting, sterilization, and clerical responsibilities by:

- (720) 1. Achieving a minimum quality average of 90%
a. a minimum of one (1) rotation = 90% to 94% quality average = 2
b. 95% quality average or higher = 3

I. Demonstrate proficiency of professional conduct and time requirements by:

- (700) 1. Achieving a minimum quality average of 95%
a. overall average of all client appointments = 4
b. 96% quality average or higher = 6

- (705) 2. Outstanding attitude/conduct documented = +1/incident

- (706) 3. Poor attitude/conduct documented = -1/incident
(No show for appt, rudeness, incomplete treatment, etc)

- (701) 4. Clinical requirements completed by due dates = 0-4

- (740) 5. Achieving a minimum of 198 hours (782 units) in clinic providing client care = 2
(Failure to complete 2/3 or more of the requirements including time -- will result in a 0.0 grade)

J. Successfully complete the seminar objectives including:

- (201) 1. Identifying clinical procedural situations for the group to problem solve and participate in the problem solving = 0-3

- (202) 2. Participating as a team member to develop new skills for use in the client's dental hygiene care plan = 0-3

- (203) 3. Participating in class discussions and activities on the Dental Hygiene Process. Applying the concepts in clinic and small group sessions = 0-3

- (204) 4. Participating in weekly conference with the clinic counselor and peers to discuss care planning, assess student evaluation by clinical instructors, evaluate progress made toward meeting clinical requirements, set goals for improvement, and establish points for completed clinical requirements = 0-3
(Attendance in group sessions is mandatory unless the absence is excused by the instructor. More than two (2) absences will result in zero (0) points for this objective.)

Procedure #		Points
(206)	5. Participating in the role-playing of dental hygiene therapist/client interactions to demonstrate problem-solving techniques for the rest of the group =	<u>0-3</u>
(215)	6. Submitting and achieving at least three (3) individual goals. The goals will focus on clinical skills, time management, communication skills, or professional/ethical conduct =	<u>0-3</u>
(217)	7. Present an oral abstract of an article related to motivation and management of patient behavior =	<u>0-3</u>
(219)	8. Demonstrate didactic knowledge by achieving 80% mastery on a quiz of new clinical procedures =	<u>0-3</u>
(450)	9. Analyze and present case study, on a given client, to class =	<u>0-3</u>

K. Extended Requirements

- a. All procedure requirements must be fulfilled for graduation. Procedures not completed in a previous semester may be assigned here. This module is instructor designed based on the incomplete requirements.
- b. The incomplete requirements cannot exceed 1/3 of the previous terms requirements.

DHY 290

Student: _____

Direct Observation

Date: _____

Instrumentation – Scaling (410)

- A** = Acceptable
- I** = Improvable
- R** = Unacceptable

- A's** are worth 2 points.
- I's** are worth 1 point.
- R's** must be remediated by repeating the procedure. If the R is replaced by an A, the student earns 1 point.

1. With explorer and/or probe, the student identifies subgingival calculus on:

_____ anterior tooth - labial or lingual	RDH initials _____
_____ anterior tooth – proximal	RDH initials _____
_____ posterior tooth – buccal or lingual	RDH initials _____
_____ posterior tooth – proximal	RDH initials _____

2. Demonstrate the indicated instruments:

Instruments	H 6/7	ODU	Gracey			Curvettes		
		11/12	Mini's (classmate)			(typodont only)		
		Explorer	1/2	15/16	17/18	1/2	11/12	13/14
Typodont checked off	_____	_____						
Operator position	_____	_____						
Client position	_____	_____						
Instrument grasp	_____	_____						
Fulcrum	_____	_____						
Blade adaptation	_____	_____						
Instrument end selection	_____	_____						
Wrist rock	_____	_____						
Stroke direction	_____	_____						
Stroke length	_____	_____						
Lateral pressure	_____	_____						
Light position	_____	_____						
Mirror placement	_____	_____						
RDH initials	_____	_____						

Student identifies the G 1/2, G 15/16, and G 17/18 without looking at the instrument numbers.

_____ (2 points)

Comments: _____

Total Points Earned = _____ 144 = _____ % Date Sent In _____

Direct Observation

Instrumentation – Scaling (410)

- A** = Acceptable
- I** = Improvable
- R** = Unacceptable

A's are worth 2 points.
I's are worth 1 point.
R's must be remediated by repeating the procedure. If the R is replaced by an A, the student earns 1 point.

1. With explorer and/or probe, the student identifies subgingival calculus on:

_____ anterior tooth - labial or lingual	RDH initials _____
_____ anterior tooth – proximal	RDH initials _____
_____ posterior tooth - buccal or lingual	RDH initials _____
_____ posterior tooth – proximal	RDH initials _____

2. Demonstrate the indicated instruments for removal of subgingival calculus:

Instruments	EMS Standard	EMS R/L	EMS Universal PS	Fiberoptic Universal #5	Fiberoptic Perio #7
Typodont checked off	_____	_____	_____	_____	_____
<u>Intraoral</u>					
Operator position	_____	_____	_____	_____	_____
Client position	_____	_____	_____	_____	_____
Instrument grasp	_____	_____	_____	_____	_____
Fulcrum	_____	_____	_____	_____	_____
Blade adaptation	_____	_____	_____	_____	_____
Instrument end selection	_____	_____	_____	_____	_____
Wrist rock	_____	_____	_____	_____	_____
Stroke direction	_____	_____	_____	_____	_____
Stroke length	_____	_____	_____	_____	_____

Lateral pressure

Light position

Mirror placement

RDH initials

Comments: _____

Total Points Earned = _____ 156 = _____ % Date Sent In _____

Direct Observation on typodont

Air-abrasive Polishing EMS Handy (413)

Typodont Classmate

1. The DHY student prepares the air-abrasive polisher for use by:
 - _____ _____ attaching the EMS Handy to the unit..
 - _____ _____ attaching the nozzle onto the handpiece.
 - _____ _____ filling the powder chamber without covering the openings in the steel tubes.
 - _____ _____ screw lid on handpiece.
 - _____ _____ adjust water flow rate to become uniform and round.

2. The student prepares the client by:
 - _____ _____ selecting an appropriate client.
 - _____ _____ draping with a plastic bib and face shield.
 - _____ _____ placing safety glasses.
 - _____ _____ applying lubricant to the lips.
 - _____ _____ placing the saliva ejector intraorally.

3. The student prepares himself/herself by:
 - _____ _____ using direct vision.
 - _____ _____ wearing safety glasses.
 - _____ _____ wearing gloves.
 - _____ _____ wearing a mask.

4. The student correctly demonstrates the air abrasive polishing technique by:
 - _____ _____ holding tip approximately 2 mm from the tooth.
 - _____ _____ angling the nozzle to the tooth between 30° to 60°.
 - _____ _____ regulating the foot pedal to ensure a steady stream of water and bicarbonate of soda.
 - _____ _____ direct nozzle toward incisal/occlusal surface
 - _____ _____ using small circles.
 - _____ _____ occasionally rinsing the tongue to reduce saline taste (if needed).

5. The student disassembles the air-abrasive polisher by:
 - _____ _____ disconnecting the EMS handy from the unit.

_____	_____	removing the nozzle and blasting the air channel and the housing unit with the units air syringe in the disinfection area to clean out remaining powder.
_____	_____	using the cleaning needles to clean nozzle and powder chamber openings, if needed.
_____	_____	properly disinfecting the powder chamber, the powder unit and the chamber lid.
_____	_____	bagging the nozzle for autoclaving.
_____	_____	
RDH	RDH	

Comments: _____

- A** = Acceptable **A's** are worth 4 points.
- I** = Improvable **B's** are worth 3 points.
- R** = Unacceptable **R's** must be remediated. R's = 2 points, I = 1 point

Total Points Earned = _____ ÷ 100 = _____ % **Date Sent In** _____

Typodont Checked Off _____

RDH Initials/date

DHY 290

Student: _____

Direct Observation on client

RDH Instructor: _____

Air-abrasive Polishing EMS Handy (413)

Client: _____

Date: _____

1. The DHY student prepares the air-abrasive polisher for use by:
 - _____ attaching the EMS Handy to the unit.
 - _____ attaching the nozzle onto the handpiece.
 - _____ filling the powder chamber without covering the openings in the steel tubes.
 - _____ screw lid on handpiece.
 - _____ adjust water flow rate to become uniform and round.

2. The student prepares the client by:
 - _____ selecting an appropriate client.
 - _____ draping with a plastic bib and face shield.
 - _____ placing safety glasses.
 - _____ applying lubricant to the lips.
 - _____ placing the saliva ejector intraorally.

3. The student prepares himself/herself by:
 - _____ using direct vision.
 - _____ wearing safety glasses.
 - _____ wearing gloves.
 - _____ wearing a mask.

4. The student correctly demonstrates the air abrasive polishing technique by:
 - _____ holding tip approximately 2 mm from the tooth.
 - _____ angling the nozzle to the tooth between 30° to 60°.
 - _____ regulating the foot pedal to ensure a steady stream of water and bicarbonate of soda.
 - _____ direct nozzle toward incisal/occlusal surface
 - _____ using small circles.
 - _____ occasionally rinsing the tongue to reduce saline taste (if needed).

5. The student disassembles the air-abrasive polisher by:
 - _____ disconnecting the EMS handy from the unit.
 - _____ removing the nozzle and blasting the air channel and the housing unit with the units air syringe in the deinfection area to clean out remaining powder.
 - _____ using the cleaning needles to clean nozzle and powder chamber openings, if needed.
 - _____ properly disinfecting the powder chamber, the powder unit and the chamber lid.
 - _____ bagging the nozzle for autoclaving.

Comments: _____

A = Acceptable
I = Improvable

A's are worth 4 points.
I's are worth 3 points.

R = Unacceptable **R's** must be remediated. R's = 2 points, I = 1 point

Total Points Earned = _____ ÷ **100** = _____% **Date Sent In** _____

DHY 290

Care Planning

Student: _____

Client with or at risk of developing

Gingivitis or Periodontitis (420)

RDH Instructor: _____

Client: _____

Date: _____

NOTE: Turn in the patient's file folder with this form.

1. When writing the Dental Hygiene Care Plan, the DHY student took into consideration:
(10 points each)

	Self Evaluation
- client's personal information	_____
- client's medical information	_____
_____ periodontal diagnosis	_____
_____ oral hygiene diagnosis	_____
_____ soft tissue diagnosis	_____
_____ dentition diagnosis	_____
_____ oral habits/occlusion diagnosis	_____
_____ goals	_____
_____ intervention	_____
_____ reinforcer	_____
_____ outcomes	_____
_____ SPT (supportive periodontal therapy, recare)	_____

2. The DHY student writes the treatment plan: (10 points each)
_____ in the appropriate sequential order

_____ including the appropriate procedures pertinent to the goals and outcomes established	_____
_____ an adequate number of appointments	_____

A = Acceptable

I = Improvable

R = Repeat

A earns 10 points.

I earns 8 points.

R's must be remediated. R's replaced by an A = 8 points, I's = 5 points.

Total Percentage Earned = _____ **150** = _____ % **Date Sent In** _____

DHY 290

Care Planning

Student: _____

Behavior Change (422)

RDH Instructor: _____

Behavior Change Client: _____ **Date:** _____

NOTE: Turn in the patient's file folder with this form.

1. When writing the Dental Hygiene Care Plan, the DHY student took into consideration:
(10 points each)

	Self Evaluation
_____ client's personal information	_____
_____ client's medical information	_____
_____ periodontal diagnosis	_____
_____ oral hygiene diagnosis	_____
_____ soft tissue diagnosis	_____
_____ dentition diagnosis	_____
_____ oral habits/occlusion diagnosis	_____
_____ goals	_____
_____ intervention	_____
_____ reinforcer	_____
_____ outcomes	_____
_____ SPT (supportive periodontal therapy, recare)	_____

2. The DHY student writes the treatment plan: (10 points each)

_____ in the appropriate sequential order	_____
_____ including the appropriate procedures pertinent to the goals and outcomes established	_____
_____ an adequate number of appointments	_____

A = Acceptable
I = Improvable
R = Repeat

A earns 10 points.

I earns 8 points.

R's must be remediated. R's replaced by an A = 8 points, I's = 5 points.

Total Percentage Earned = _____ 150 = _____ % Date Sent In _____

DHY 290

Case Presentation

Student: _____

Client with or at risk of developing

Gingivitis or Periodontitis (424)

RDH Instructor: _____

Client: _____

Date: _____

Note: Turn in your cassette tape and the client's file folder with this form.

1. Explanation of: (10 points each)	Self Evaluation
_____ presumptive diagnosis	_____
• periodontal diagnosis	
• oral hygiene diagnosis	
• soft tissue	
• dentition diagnosis	
• oral habits/occlusion diagnosis	
_____ goals	_____
_____ intervention	_____
_____ consequences of non-compliance	_____
_____ conditions/criteria/outcomes	_____
_____ outline treatment plan	_____
_____ commitment from client to follow through on treatment plan	_____
2. In explaining procedures to the client, the DHY student: (10 points each)	
_____ is organized	_____
_____ gives complete, precise explanations	_____
_____ explains the rationale for selecting procedures	_____
_____ demonstrates appropriate voice inflections and uses appropriate language (not slang or repetitive phrases)	_____
_____ expresses an interest in the client	_____
_____ allows the client to interject questions	_____
_____ is tactful and truthful in answering client questions	_____
_____ Informed consent formed signed	_____

Instructor's comments: _____

A = Acceptable
I = Improvable
R = Repeat

A earns 10 points.

I earns 8 points.

R's must be remediated. R's replaced by an A = 8 points, I's = 5 points.

Total Percentage Earned = _____ 140 = % _____ Date Sent In _____

Case Presentation

Behavior Change (426)

Behavior Change Client: _____ Date: _____

Note: Turn in your cassette tape and the client's file folder with this form.

1. Explanation of: (10 points each) Self Evaluation

- _____ presumptive diagnosis _____
- periodontal diagnosis
- oral hygiene diagnosis
- soft tissue
- dentition diagnosis
- oral habits/occlusion diagnosis
- _____ goals _____
- _____ intervention _____
- _____ consequences of non-compliance _____
- _____ conditions/criteria/outcomes _____
- _____ outline treatment plan _____
- _____ commitment from client to follow through on treatment plan _____

2. In explaining procedures to the client, the DHY student: (10 points each)

- _____ is organized _____
- _____ gives complete, precise explanations _____
- _____ explains the rationale for selecting procedures _____
- _____ demonstrates appropriate voice inflections and uses appropriate language (not slang or repetitive phrases) _____
- _____ expresses an interest in the client _____
- _____ allows the client to interject questions _____
- _____ is tactful and truthful in answering client questions _____
- _____ Informed consent formed signed _____

Instructor's comments: _____

A = Acceptable

I = Improvable

R = Repeat

A earns 10 points.

I earns 8 points.

R's must be remediated. R's replaced by an A = 8 points, I's = 5 points.

Total Percentage Earned = _____, 140 = _____% Date Sent In _____

DHY 290

Student _____

Direct Observation

4-Handed Dental Hygiene (435)

Date _____

RDH Instructor _____

- A** = Acceptable **A's** are worth 10 points.
- I** = Improvable **I's** are worth 8 points.
- R** = Unacceptable **R's** must be remediated. R replaced by an A = 8 pts; by an I = 5 pts.

_____ Tray is conveniently located for the assistant.

As The Assistant:

The properly seated assistant demonstrates the correct transfer techniques for the following operator grasps:

- _____ pen grasp
- _____ palm-thumb grasp
- _____ palm grasp
- _____ special cases

The assistant demonstrates the correct retrieval techniques for the following operator grasps:

- _____ pen grasp
- _____ palm-thumb grasp
- _____ palm grasp
- _____ special cases

_____ The assistant properly places the oral evacuator for various intra oral areas.

As the Operator:

The operator demonstrates the correct transfer techniques for the following grasps:

- _____ pen grasp
- _____ palm-thumb grasp
- _____ palm grasp
- _____ special cases

The operator demonstrates the correct retrieval techniques for the following grasps:

- _____ pen grasp
- _____ palm-thumb grasp
- _____ palm grasp
- _____ special cases

Comments: _____

Total Points = _____ ÷ 180 = _____ % Date Sent In _____

DHY 290

Student _____

Direct Observation

Dentin Desensitization (445)

Date _____

RDH Instructor _____

A = Acceptable **A**'s are worth 10 points.

I = Improvable **I**'s are worth 8 points.

R = Unacceptable **R**'s must be remediated. R replaced by an A = 8 pts; by an I = 5 pts.

- _____ 1. Proper tray set up.
- _____ 2. Correctly prepares the area(s) that will be desensitized.
- _____ 3. Applies the desensitizing solution according to manufacturers recommendations.
- _____ 4. Check for reduced sensitivity with air, water, and/or an explorer. If still sensitive, repeat step 3.
- _____ 5. Inform client of the procedure and its benefits.

Total Points = _____ ÷ 50 = _____ % Date Sent In _____

Process Examination (455)

(Both 410 instrumentation direct observations, except curvettes, must be completed prior to this evaluation)

Time: Start _____ Finish _____

- _____ 1. 20 minutes for process
- _____ 2. Maintains aseptic chain
- _____ 3. Identifies with probe or explorer 3 teeth with a minimum of six areas of subgingival calculus.

Anterior(s) # _____

Posterior(s) # _____

- _____ 4. Uses correct end of the 11/12 explorer.
- _____ 5. Selects appropriate scaling instrument(s) -- (Instructor - list those used) Must use combination of hand and ultrasonic/sonic.

Anterior _____

Posterior _____

- 6. Calculus removal technique:

_____ Operator's position	_____ Blade adaptation
_____ Client's position	_____ Instrument end selection
_____ Light placement	_____ Lateral pressure
_____ Mirror placement	_____ Wristock
_____ Instrument grasp	_____ Stroke direction
_____ Fulcrum placement	_____ Stroke length

- 7. Calculus removal: (instructor check)

_____ all calculus removed	=	A
_____ 1-3 areas remaining	=	I
_____ 4 or more areas remaining	=	R

_____ 8. Determines whether detoxification is needed.

A = Acceptable = 2 points
I = Improvable = 1 point
R = Repeat = 0 points

Points Earned _____ \div **38** = _____ % **Date Sent In** _____

Goals (215)

Name _____ Group Counselor _____

My personal goals for the semester that will allow me to grow both clinically and professionally are:

Goals that I have set for myself....	These are the Strength(s) of mine that will help me to meet my goal...	I'll know I have achieved my goal when...
A goal that is affirming or developing my Strengths:		
DHY/academic/study goal:		
career goal:		
relationship goal:		

Assessment of Goal Achievement

Rank your progress toward achieving your goals using the following scale: 1-5 with five being the best.

Midterm

End of Term

1. _____

1. _____

2. _____

3. _____

4. _____

2. _____

3. _____

4. _____

DHY 290 requirements fulfilled

As you complete each requirement write that person's name in the appropriate box.

1 Child Category (4 quads)

(001)(002)		

1 Health Category (4 quads)

(001)(003)		
(004)(005)		

1 Gingivitis Category (4 quads)

(002)(006)		
(007)(008)		

1 Perio/SI., mod AL (4 quads)

(009)(010)		

1 Additional Client (4 quads)

(001)(002)		
(003)(004)		
(005)(006)		
(007)(008)		

Moderate Calculus (1 quad)

(016)	
--------------	--

Power Scaling (8 quads)

(015)		

Root Detoxification w/Gracey cures one quad (minimum of two teeth)

(020)	
--------------	--

2 Rubber Cup Polishing

(019)	

2 Air Abrasive Polishing

(020)	

1 FMS

(030)	
--------------	--

2 FMS and 2 BWX on mannequin

(033)	Date taken:
	Date taken:
(039)	Date taken:

	Date taken:
--	--------------------

3 BWX

(037)	

4 Fluorides

(046)		

2 Chemical Cured Sealants

(083)		

2 Light Cured Sealants

(084)		

4 Additional Sealants Any Type

(083)(084)		

1 Root Desensitization

(088)		
--------------	--	--

4 Follow-up assessments

(090)		

Anti-Microbial Irrigation (4 quads)

(099)		

5 Health Histories/Oral Exams

(110)(112)	

1 Plaque / Hemorrhage Control

(502)(503)	
-------------------	--

2 Nutritional Assessments

(507)	

1 Dispensary

(720)	Date Completed:
--------------	------------------------

DHY 290 – Dental Hygiene Practicum I

Due Date Contingency Management Agreement

<u>Planned Due Date</u>	<u>Actual Due Date</u>	<u>Procedure</u>
_____	_____	Scaling D. O. (410)
_____	_____	Mechanical Scalers (410)
_____	_____	Handy typodont/classmate (413)
_____	_____	Handy client (413)
_____	_____	Four—Handed Dental Hygiene D. O. (435)
_____	_____	Manual Root Desensitization D. O. (445)
_____	_____	Care Planning (420)
_____	_____	Care Planning Behavior Change (422)
_____	_____	Case Presentation (424)
_____	_____	Case Presentation Behavior Change (426)
_____	_____	Process Evaluation (455)
_____	_____	Plaque/Hemorrhage Control Adult/Child (502/502)
_____	_____	Nutritional Assessment Adult/Child (507)

_____ Instructor Signature

_____ Student Signature

_____ Date

Completion of 11(+) of the 13 items by the due dates	=	4 points
Completion of 10 of the 13 items by the due dates	=	3 points
Completion of 9 of the 13 items by the due dates	=	2 points
Completion of 8 of the 13 items by the due dates	=	1 point
Completion of 7 or less of the 13 items by the due dates	=	0 points

Medically Compromised / Special Needs Clinical Clients

We track our medically compromised/special needs clinical clients as procedure number 903. This will be noted when closing clients out; it is noted when you identify the client as new or recall and their age.

The following chart is from the American Society of Anesthesiologist (ASA) Physical Status Classification

ASA I	Healthy; no systemic disease
ASA II	Mild systemic disease
ASA III	Severe systemic disease that limits activity but is not incapacitating
ASA IV	Incapacitating severe systemic disease that is a constant threat to life
ASA V	A moribund patient who is not expected to survive 24 hours without an operation

These definitions appear in each annual edition of the **ASA Relative Value Guide**.

You may have clients that fall in the ASA I to ASA IV level—ASA V and ASA E probably will not bother getting their oral health examined by a dental hygiene student.

So who falls into this category? Who will you note a 903 when closing out the chart or passing onto another student?

ASA II
ASA III
ASA IV

Any client with a physical or cognitive disability regardless if it is acquired (happens after age 22) or developmental (happens prior to age 22).

DHY 290 Evaluations Form Grades

<p>Oral Exam Patient Education Affective Behavior</p>	<p>These three sections are graded according to what is checked off as incorrect. These sections have preassigned points. The grade will reflect a percentage of one hundred (100%).</p>														
<p>Instrumentation: Subgingival Accretions and Stain</p>	<p>This section is graded per quadrant. Each quad is worth 0 to 5, the entire mouth is worth a total of 20 points. Too many areas is -1 per quad.</p> <table> <thead> <tr> <th><u>Missed Areas</u></th> <th><u>Points</u></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>05</td> </tr> <tr> <td>1-2</td> <td>04</td> </tr> <tr> <td>3-4</td> <td>03</td> </tr> <tr> <td>5-6</td> <td>02</td> </tr> <tr> <td>7-8</td> <td>01</td> </tr> <tr> <td>9 or more</td> <td>00</td> </tr> </tbody> </table>	<u>Missed Areas</u>	<u>Points</u>	0	05	1-2	04	3-4	03	5-6	02	7-8	01	9 or more	00
<u>Missed Areas</u>	<u>Points</u>														
0	05														
1-2	04														
3-4	03														
5-6	02														
7-8	01														
9 or more	00														
<p>Tissue Integrity</p>	<p>This section is not assigned grades but rather a method of identifying students who need some remediation with instrumentation.</p>														
<p>Supragingival Accretions and Plaque Remaining</p>	<p>This section is graded as a 5 for the entire mouth regardless of client classification. The grade scale used for subgingival deposits is used to determine students' grades.</p>														
<p>Follow-Up Assessment Fluoride</p>	<p>A pass/fail grade which is recorded as 0 or 1.</p>														
<p>Anti-microbial Irrigation</p>	<p>A pass/fail grade which is recorded according to number of quadrants successfully completed.</p>														

DHY 290 Evaluations Form Grades

Dental Charting	<p>The following is a list of points and procedures:</p> <table border="1"> <tr> <td>3 – dental caries (9 total)</td> <td>3 – ortho appliance</td> </tr> <tr> <td>5 – defective restoration</td> <td>3 – recession</td> </tr> <tr> <td>5 – mischarting</td> <td>3 – removable appliance</td> </tr> <tr> <td>5 – missing teeth</td> <td>3 – restoration</td> </tr> <tr> <td>5 – mobility</td> <td>3 – sealant</td> </tr> <tr> <td>5 – migration</td> <td>3 – traumatized teeth</td> </tr> <tr> <td>5 – overhangs</td> <td>1 – amalgam tattoo</td> </tr> <tr> <td>5 – neatness</td> <td>1 – anatomy</td> </tr> <tr> <td>5 – proper recording</td> <td>1 – correct teeth present</td> </tr> <tr> <td>3 – abrasion</td> <td>1 – diastema</td> </tr> <tr> <td>3 – attrition</td> <td>1 – hypoplasia</td> </tr> <tr> <td>3 – bridge</td> <td>1 – intrinsic stain</td> </tr> <tr> <td>3 – cast gold restoration</td> <td>1 – partially erupted teeth</td> </tr> <tr> <td>3 – decalcification</td> <td>1 – root canals</td> </tr> <tr> <td>3 – erosion</td> <td>1 – rotation</td> </tr> <tr> <td>3 – facts</td> <td>1 – versions</td> </tr> <tr> <td>3 – hypocalcification</td> <td>1 – reading</td> </tr> <tr> <td>3 – impaction</td> <td></td> </tr> </table>	3 – dental caries (9 total)	3 – ortho appliance	5 – defective restoration	3 – recession	5 – mischarting	3 – removable appliance	5 – missing teeth	3 – restoration	5 – mobility	3 – sealant	5 – migration	3 – traumatized teeth	5 – overhangs	1 – amalgam tattoo	5 – neatness	1 – anatomy	5 – proper recording	1 – correct teeth present	3 – abrasion	1 – diastema	3 – attrition	1 – hypoplasia	3 – bridge	1 – intrinsic stain	3 – cast gold restoration	1 – partially erupted teeth	3 – decalcification	1 – root canals	3 – erosion	1 – rotation	3 – facts	1 – versions	3 – hypocalcification	1 – reading	3 – impaction	
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3 – facts	1 – versions																																				
3 – hypocalcification	1 – reading																																				
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Periodontal Charting	<p>This is graded on a 100% scale; the clinical instructor will grade gingival height and pocket depths. The charting will be graded in group and the final grade assigned.</p>																																				
Desensitizing	<p>A pass/fail grade for each tooth assigned as 0 or 1.</p>																																				
Sealants	<p>This grade is based on a 100% with points being deducted according to what was identified. Important to identify tooth number if there is a problem when multiple teeth are being sealed.</p>																																				
Radiographic Evaluation FMS BWX	<p>This grade is based on a 100% scale with points being deducted according to what has been checked off on the form. If a student takes a FMS that includes the BWX then the student is graded on both sections, that is they will receive a grade for FMS and a grade for BWX.</p>																																				

Child Health	001	Adult dental charting	070
Child Gingivitis	002	FMS Charting	071
Health	003	Child dental charting	072
Health/recession	004	Voice activated perio charting	073
Health/stabilized	005	Perio charting	074
Gingivitis	006	BWX Charting	075
Gingivitis/recession	007	Mixed dentition charting	076
Gingivitis/stabilized	008	Fixed bridge charting	077
Perio/slight attachment loss	009	Perio charting/mechanical	078
Perio/moderate attachment loss	010	Dental Hygiene Diagnosis	079
Perio/severe attachment loss	011	4-handed dental hygiene	080
Hand scale only	014	Utilizing an assistant	081
Power scale	015	Soft tissue curettage	082
Moderate calculus	016	Chem. cured sealant	083
Heavy calculus	017	Light cured sealant	084
Root detoxification	018		085
Rubber cup polishing	019	Overhang removal	086
Air polishing	020		087
Temp. rest. placement	026	Root desensitization/manual	088
Temp. rest. removal	027	Root desensitization/mechanical	089
Suture removal	028	Follow-up assessment	090
Perio dressing	029	Follow-up visit	091
FMS	030		092
FMS on a mannequin	033		093
BWX	037		094
BWX on a mannequin	039		095
Local Antimicrobial placement	040	Nitrous Oxide/Oxygen Sedation	096
	045	Infiltration anesthesia	097
Fluoride	046	Block anesthesia	098
DIAGNOdent	048	Antimicrobial irrigation	099
Detec Tar	049	Inferior Alveolar block	100
Class I amalgam	050	Mental block	101
Class II amalgam	051	Long Buccal block	102
Class V amalgam	052	Greater Palatine block	103
	053	Nasopalatine block	104
	054	Anterior Superior Alveolar Infiltration	105
	055	Middle Superior Alveolar Infiltration	106
	056	Posterior Superior Alveolar Infiltration	107
	057		108
	058		109
	059	Oral Examination	110
Adult study models	060		111
	061	Less than 1 yr oral exam	112
Child study models	062		200
	063	Clinical problem solving	201
Enrichment models	064	Team approach	202
	065	New clinical procedures	203
	066	group sessions	204
	067	Perio Lab	205
	068	Role-playing	206
	069	Alternative practice research/report	207

Process Evaluation – Master List

Practice Management	208	Overhang removal direct obs.	440
Debates	209	Diamond Probe direct obs.	444
Office Economics	210	Desensitization direct obs.	445
Special needs/med comp. DHY care plans	211	Antimicrobial irrigation d.o.	446
Special needs/med comp notebook	212	Perio dressing d.o.	447
		Intraoral camera photography	448
4-handed DHY quiz	213	Four Client photos	449
Ultrasonic quiz	214	Perio case study	450
Individual goals	215	Process evaluation	455
Team problem solving	216		
Oral Abstracts	217	Child supplement Fluoride d.o.	466
Class Activity	218	Expectant/infant supp. Flu. d.o.	467
New clinical skills quiz	219	Local Anesthesia direct obs.	470
Plaque Control Products	220	Nitrous Oxide/Oxygen direct obs.	471
			500
Waste Management	221		501
Implant Care	222	Adult plaque control	502
Enamel Whitening	223	Child plaque control	503
Clinical Considerations of Older Patients	224	Adult nutritional analysis	504
Ergonomics	225	Child nutritional analysis	505
Resume	226		
Cover Letter	227	Nutritional assessment	507
		Peer evaluation nut. analysis	508
	300		509
Patient Education	301	Enrichment behavior change	510
Instrumentation direct obs.	410		
Sharpening direct obs.	411		
Root planing direct obs.	412		
Air polishing direct obs.	413		
Sealant direct obs.	414		
DHY diagnosis direct obs.	415		
O.E. tray set up direct obs.	416		
Scaling tray set up direct obs.	417		
Polishing tray set up direct obs.	418		
Fluoride tray set up direct obs.	419		
Adult treatment plan direct obs.	420		
Child treatment plan direct obs.	421		
Behavior change tr. pl. d.o.	422		
Perio treatment plan d.o.	423		
Adult case presentation	424	Affective behavior	700
Child case presentation	425	Clinic due dates met	701
Behavior change case pres.d.o.	426		702
Perio case pres. direct obs.	427		703
Geriatric Perio case pres. dir. obs.	428		704
Patient Educ case pres. d.o.	429	Outstanding attitude	705
PHP direct obs.	430	Deficient attitude	706
Fluoride direct obs.	431		707
Child patient educ. direct obs.	432		708
Emergency procedures direct obs	433		709
Plaque removal direct obs	434		710
4-handed techniques direct obs.	435		711

Process Evaluation – Master List

	712
	713
	714
	715
	716
	717
	718
	719
Dispensary Duties	720
Time in units	740
C.T. H or I adult challenge	750
	751
Mock Board client challenge	752
	753
C.T. II, III or IV challenge	754
Extra C.T. III or IV challenge	756
New Client	900
Recall Client	901
Community Clinic	902
Special Needs / Med. Comp.	903
	904
	905
	906
	907
	908
	909
0-6 years old	910
7-13 years old	911
14-19 years old	912
20-29 years old	913
30-59 years old	914
60 & above	915

DHY 290- Dental Hygiene Practicum I
Quiz- Power Scalers, Gracey Curettes, and Air Polishing

Name _____

J Williams

1. The debridement/detoxification instrument that has one cutting edge lower than the other is the
 - a. posterior sickle scaler.
 - b. anterior sickle scaler.
 - c. area-specific curette.
 - d. universal curette.

2. Which one of the following instruments could be selected for the removal of localized, light subgingival calculus on the mesials in a posterior sextant?
 - a. Gracey 17/18
 - b. H 6/7
 - c. Gracey 1/2
 - d. Gracey 15/16

3. A general guideline for a Gracey Curette is that the more angled the shank,
 - a. the less adaptable it is.
 - b. the less it is used.
 - c. the more anterior its use.
 - d. the more posterior its use.

4. Basic considerations to keep in mind when adapting a Gracey curette Include:
 1. maintain a working angle at 70°.
 2. the lower cutting edge is on the tooth.
 3. the lower shank is parallel to the tooth surface.
 4. the instrument face should hug the tooth during insertion.
 - a. 1 and 2
 - b. 3 and 4
 - c. 1, 2, and 4
 - d. all of the above

5. Tooth #19 has a furcation III involvement. The Gracey curette of choice for root planning the distal surface of the distal root would be the
- a. 1/2.
 - b. 3/4.
 - c. 17/18.
 - d. 15/16.
6. A Gracey can be used for moderate to heavy calculus removal.
- a. True
 - b. False
7. Design characteristics of an area specific curette include which of the following:
- a. Long complex shank
 - b. Curved cutting edges
 - c. Tilted face
 - d. All of the above
8. After Five Gracey Curettes should be used in the evening only.
- a. True
 - b. False
9. I begin debriding and detoxifying from the distofacial line angle and work toward the mesial of tooth number 31. Which instrument am I using?
- a. Gracey 1/2
 - b. Gracey 15/16
 - c. Gracey 17/18
 - d. H 6/7
10. The get ready zone for the Gracey 1/2 is:
- a. the distal line angle
 - b. the mesial line angle
 - c. the midline
 - d. just pick a spot

11. Contraindications for use of the air polishing technique include which of the following:

1. A hypertensive client on a sodium restricted diet.
2. A client with TB.
3. A client with limited breathing or swallowing.
4. A client with many anterior and posterior composites.

- a. 1, 2, and 3.
- b. 2, 3, and 4.
- c. 1, 3, and 4.
- d. all of the above.

12. Optimally, the spray from the air abrasive polisher should be directed at the

- a. Cervical 1/3 of the crown.
- b. Incisal/occlusal 1/3 of the crown.
- c. Middle 1/3 of the crown.
- d. Area of heaviest stain.

13. The nozzle tip of the air abrasive polisher sprays

1. air
 2. sodium bicarbonate
 3. water
- a. 1 and 2
 - b. 2 and 3
 - c. all of the above

14. Which of the following should not be sprayed directly with an air polisher?

- a. root surfaces of the teeth.
- b. composites.
- c. sealants.
- d. all of the above.

15. The nozzle tip of the air abrasive polisher should be held

- a. In contact with the tooth.
- b. 2-4 mm from the surface of the tooth.

- c. 4-6 mm from the surface of the tooth.
 - d. 7-8 mm from the tooth surface.
16. The goal of root planning is for hardness of the tooth's surface, not necessarily smoothness, by the use of multiple overlapping heavy strokes
- a. The statement is true
 - b. The statement is false
 - c. The first part of the statement is true; the second part is false
 - d. The first part of the statement is false; the second part is true
17. Which of the following statements is an advantage of the slim line power scaler tips?
- a. Does not require a lot of water.
 - b. Better control of the instrument.
 - c. Better access to subgingival areas.
 - d. Eliminates the need for hand instruments.
18. The tip of a power scaler is the most powerful area of vibration; therefore, it should not be engaged against the tooth.
- a. Both statement and reason are correct.
 - b. The statement is correct; reason is not.
 - c. The statement is incorrect; the reason is correct.
19. The EMS standard tips (A and P) are used in the mouth generally for moderate to heavy calculus.
- a. True
 - b. False
20. Dental considerations for the use of power scaling include:
- a. Titanium implants.
 - b. Porcelain crowns.
 - c. Composite restorations.
 - d. Areas of demineralization.
 - e. All of the above.

Bonus: How does tip wear affect a power scaler?

DHY 258 Community Health Concepts

Fall 2016

Instructor Contact Information

Jody Williams

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Course Description

(Credits: 3) This course will emphasize the principles, theories and concepts of community oral health as well as the methods for determining community oral health status, identifying barriers to optimum health and selecting appropriate interventions. Student will work in teams to develop and implement a series of programs to present to community organizations and public schools.

Prerequisites

Required: none required

Required Textbooks

Geurink, K. (2012) *Community oral health practice for the dental hygienist, 3rd edition*. Saint Louis: Elsevier

Course Focus

The course focus is to understand and facilitate client access to oral health services by influencing individuals and organizations for the provision of oral health care and to apply the planning, implementation and evaluation phases of a community health program.

Course Goals/ Student Learning Outcomes

1. Demonstrate and promote the values of oral and general health and wellness to the public and organizations within the and outside the profession.
2. Respect the goals, values, beliefs, and preferences of the client while promoting optimal oral and general health
3. Identifying individual and population risk factors, and develops strategies that promote health related quality of life
4. Assess the oral health needs of the community and the quality and availability of resources and services
5. Provide screening, referral, and educational services that allow clients to access the resources of the health care system
6. Provide community oral health services in a variety of settings
7. Facilitate client access to oral health services by influencing individuals and organizations for the provision of oral health care
8. Evaluate the outcomes of community based programs and plan for future activities
9. Determine the outcomes of dental hygiene interventions using indices, instruments, examination techniques, and the patient or client self report
10. Identify alternative career options within health care industry, education research
11. Develop management and marketing strategies to be used in non traditional health care setting
12. Access professional and social networks and resources to assist entrepreneurial initiatives.

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

Week	Topic	Quiz/Tests	Goal #
1	Introduction to review course syllabi Chapter 1 discussion	research paper discussion	
2	Discussion Chapter 2 Careers in public health	Quiz chapter 1 One page paper on a career in public health for the dental hygienist	
3	Discussion chapters 3 Assessment in the community	Quiz chapter 2 One page research on dental disease prevalence in Southeast Iowa	
4	Discussion chapters 4 Measuring progress in oral health	Quiz chapter 3 Evaluating frequencies of diseases among certain social groups	

5	Discussion Chapters 5 population health	Research paper due Quiz chapter 4	
6	Midterm test chapters 1-5 Discussion chapters 6 Oral health programs in the community	Mid term test 100pts Based on research paper Start community group Project	
7	Discussion chapter 7evaluating research mean, median, mode	Quiz chapter 6 develop ideas to create a working project	
8	Discussion chapters 8 Health promotions and health communication	Quiz chapter7 Visit community health organizations (head start)	
9	Discussion chapters 9 Social Responsibility	Quiz Chapter 8 exploring social issues related to society/ dentistry	
10	Discussion chapters 10 cultural competency	Quiz Chapter 9 Group work on project	
11	Week 10 quiz Discussion 11 & 12 service learning,	Quiz week 10 Group work on project	
12	Final Exam	Community project due	
12	Final Exam	100 points	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class

time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class. This also includes no texting during class time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class or lab you must call and let me know.

Course Points

Grading Points

10 Quizzes	500 points
Midterm exam	100 points
Final exam	100 points
Research paper	100 points
<u>Community Project</u>	<u>100 points</u>
Total points	900 points

Name: _____

Research Paper Rubric

	4	3	2	1
Content and Focus	<ul style="list-style-type: none"> ▪ Exceptionally clear, focused, interesting thesis. ▪ Strong, rich supporting details and examples that prove thesis. ▪ A meaningful conclusion explaining the importance of the research and how it can be used. 	<ul style="list-style-type: none"> ▪ Clear thesis which maintains a consistent focus from beginning to end. ▪ Specific supporting details are present. ▪ A clear conclusion as to why the research is important. 	<ul style="list-style-type: none"> ▪ Contains thesis but with inconsistent focus. ▪ Generalized supporting details that prove thesis. ▪ Conclusion tends to summarize research. 	<ul style="list-style-type: none"> ▪ Thesis statement lacks clarity and focus. ▪ Inadequate or missing supporting details. ▪ Missing a summarizing conclusion
Organization	<ul style="list-style-type: none"> ▪ Strong introduction and conclusion. ▪ Consistent and coherent logical progression. ▪ Uses clear and skillful transitions. 	<ul style="list-style-type: none"> ▪ Clear introduction and conclusion. ▪ Illustrates some consistency and shows some logical progression. ▪ Uses clear transitions. 	<ul style="list-style-type: none"> ▪ Introduction and conclusion is present but not clear ▪ Show some attempt of consistency and order. Paper shows attempt of transitions between paragraphs. 	<ul style="list-style-type: none"> ▪ Unable to clearly identify introduction and conclusion. ▪ Lack of consistency and order. ▪ Paper shows little or no attempt of transitions between paragraphs.
Style	<ul style="list-style-type: none"> ▪ Written in formal language (avoids slang completely). ▪ Elaborate and colorful language. ▪ Consistently strong and varied sentence structure. ▪ Direct quotes support student's ideas. ▪ Paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Majority of paper written in formal language. ▪ Language appropriate to topic. ▪ Words convey intended message. ▪ Direct quotes support student's ideas. ▪ Majority of paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Some use of formal language recognized; informal language is dominant. ▪ Most language is appropriate to topic. ▪ Able to get vague idea of message. ▪ Some parts of paper written in student's own words. 	<ul style="list-style-type: none"> ▪ Paper frequently uses informal language. ▪ Language is not appropriate to topic. ▪ Message is unclear. ▪ Majority of paper is plagiarized.
Sources/Format	<p>Follows MLA guidelines:</p> <ul style="list-style-type: none"> ▪ Uses 5 or more cited sources. ▪ Sources meet the guidelines for types of sources. ▪ All parenthetical documentation is MLA correct (author's name, pg. #). ▪ Works Cited page is MLA correct. ▪ All researched info is documented. 	<p>Follows MLA Guidelines with few exceptions:</p> <ul style="list-style-type: none"> ▪ 3-4 cited sources used. ▪ Sources meet the guidelines for types of sources. ▪ Few errors noted in parenthetical documentation ▪ Majority of Works Cited page is MLA correct. ▪ Most research info is Documented. 	<ul style="list-style-type: none"> ▪ Inconsistent use of MLA style guidelines. ▪ Less than 3 cited sources used. ▪ Majority of parenthetical documentation done incorrectly. ▪ Random MLA documentation. ▪ Rarely documents sources. 	<ul style="list-style-type: none"> ▪ Fails to follow MLA style Guidelines. ▪ Less than 3 cited sources used little or no parenthetical documentation. ▪ Works Cited page is not understandable.
Conventions	<p>Superior editing. Rarely makes errors in the following areas:</p> <ul style="list-style-type: none"> ▪ Spelling and mechanics. ▪ Correct usage and grammar. 	<p>Careful editing. Makes few errors in the following areas:</p> <ul style="list-style-type: none"> ▪ Spelling and mechanics ▪ Correct usage and grammar 	<p>Some evidence of editing:</p> <ul style="list-style-type: none"> ▪ Extensive spelling and grammatical errors. 	<p>Poor editing:</p> <ul style="list-style-type: none"> ▪ Spelling and grammatical errors make it difficult to read paper.

Score: _____ / 4

Evaluated by: _____ Date: _____

Grading Scale

Letter	% Range
A	93-100
B	85-92

C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner.

Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Course Outline

Unit One: Foundations

Content: People's Health

Objectives

1. Define the terms health, public health and dental public health.
2. Defined the term population health.
3. Identify public health problems within a community
4. Identify public health measures or solutions
5. Define dental disease as a public health problem with public health solutions.
6. Explain the role of the government in public health solutions.
7. Discuss the 10 greatest public health achievements of the twentieth services.
8. Identify core functions of public health to the roles of the dental hygienist.

Outline

- a. Health, Public health and Dental public health
- b. The public health problems and the public health solution
- c. Dental disease as a public health problem
 - i. Dental caries
 - ii. Public health/private practice
- d. Governments role in public health
 - i. governments agencies
 - ii. national initiatives
- e. Core functions of Public Health
- f. Future of dental public health
 - i. What needs to be done
 - ii. Going in the right direction
 - iii. common goal

Content: Careers in Public health for the dental hygienist

Objectives:

1. Explain public health career options for dental hygienists

2. Discuss public health careers as a means of addressing the problem of access to oral health care.
3. Define the mid-level provider role in addressing access to oral health care.
4. Define skills and educational requirements for various roles in public health.
5. Explains the relationship of private practice activities to public health activities.
6. Identify specific careers, categorized by the American Dental Hygienist Association designated roles of the dental hygienist.

Outline:

- a. Community Oral health practice as a career
- b. Future trends for dental hygienists in public health
 - a. Problem of access to oral health care
 - b. Alternative practice settings
 - c. Public health supervision
 - i. Regulatory changes
 - d. Mid-level provider
 - e. Dental therapist
 - f. Community Dental health Coordinator
 - g. Advanced dental hygiene practitioner
 - h. Minnesota dental therapist and advanced dental therapist
- c. Careers in public health
 - a. clinician
 - b. educator
 - c. Advocate
 - d. Researcher
 - e. Administrator

Content: Assessment in the community

Objectives:

1. Explain the importance of assessment as a core public health function.
2. Describe the roles of public health professionals in assessment.
3. Discuss the basic terms and concepts of epidemiology.
4. Describe the conceptual models that illustrate the determinants of health.
5. Identify the determinants that affect the health of individuals and communities.
6. Identify the specific stages of a planning cycle.
7. Discuss a community oral health improvement process.

8. Describe the main steps followed and key activities under taken in a community oral health assessment.

9. Compare and contrast the different methods of data collection that can be used in community health assessments.

Outline:

- a. Public health Practice
- b. Assessment: a Core Public Health Function
- c. Roles of Public health Professionals in Assessments
- d. Overview of epidemiology: Population base study of health
 - Host factors
 - Agent factors
 - Environment factors
 - Uses of Epidemiology
- e. Changing perspective's of Health
- f. conceptual models of the determinants of health.
- g. Determinants of Oral Health in Individuals and populations
- h. The planning cycle
- i. Assessment of oral health in communities
- j. Planning a community oral health assessment
 - i. describing the community
 - ii. Implementing a self assessment and determining initial goals
- h. Implementing a Community Oral health assessment
 - i. data collection
 - ii. quantitative data
 - iii. qualitative data
- i. Determining the necessity of primary data collection
 - i. Planning and collecting primary data
 - ii. Analyzing and Interpreting data
 - iii. Identifying Critical oral health issues and selecting priorities
 - iv. communicating and Publicizing the findings
- j. Evaluating the assessment process

k. Next steps: Developing and implementing an improvement plan

Content: Measuring progress in oral health

Objectives:

1. Discuss the national Healthy People initiatives
2. Describe the oral health objective of healthy people 2010 and 2020
3. Discuss measures used to assess oral health in populations
4. Compare and contrast the procedures and methods used in oral health surveys.

Outline:

- a. Oral Health assessment: Essential in monitoring community health
- b. Healthy People
- c. Healthy people 2020 framework
 - i. Health equity
 - ii. Health disparity
- d. National objectives for improving health
- e. National Oral health objectives
- f. Oral health surveillance systems
 - i. ASTDD
 - ii. BSS
 - iii. NOHSS
- g. Measuring oral health and its determinants in populations
- h. types of measurements
 - i. Measurements of dental caries
 - ii. permanent dentition
 - iii. primary dentition
 - iv. Future directions of assessing dental caries
- i. Measurement of Dental treatment Need
 - i. WHO
- j. Measurement of Dental Sealants
- k. Measurement of periodontal disease
 - i. Community periodontal Index (CPI)

- ii.Future directions for assessing periodontal disease.
- l.Measurement of retention and loss of teeth
- m.Measurement of oral and pharyngeal cancer
- n.Measurement of other oral and craniofacial diseases, conditions, and injuries
 - i.. Measurement of malocclusion and craniofacial anomalies
 - ii. Measurement of craniofacial injuries
 - iii.Measurement of orofacial pain and temporomandibular Dysfunction
 - iv. Measurement of dental fluorosis
 - v. Measurement of tooth wear
- o.Measurement of access to oral health services
 - i. Measurement of access to community prevention: Water Fluoridation (WFRS)
 - ii.Measurement of access to the oral health care system
 - iii.Measurement of Oral health, well-being, and quality of life
 - iv. Oral health related quality of life
 - v. Future directions for assessing oral health-related quality of life
- p.Measurement of infra-structure, capacity and resources
- q. Future considerations for oral health surveillance

Content: Population Health

Objectives:

1. Describe the current status of oral health in the United States
2. Discuss oral health trends in the United States
3. Compare the indicators for oral health included in the national oral health objectives for Healthy people 2010 and Healthy people 2020
4. Identify oral health disparities and inequities among population groups
5. Discuss the factors that influence oral health in populations

Outline:

Part one: Oral Health status and trends

- a. Global burden of oral diseases
- b. Oral health in the United states
- c. Social impact of oral diseases
- d. Burden of oral diseases in the United States
- e. Oral Health status and trends
- f. Community Preventive Services⁴⁷³

- g. Periodontal diseases
- h. Tooth loss
- i. Oral and pharyngeal cancer
- j. Other oral conditions

Content: Part two: Access to oral health care and dental public health systems

Outline:

- a. Access to the oral health care system
- b. Barriers to dental care
- c. Regular dental visits and use of oral health services
- d. Unmet dental needs
- e. Dental insurance coverage
- f. Publically funded health insurance programs
- g. Oral health workforce
- h. Population trends and future dental workforce
- i. Supply of Dental Professionals
- j. Academic Dental institutions: Educating Future Dental Professionals
- k. Distribution of dental professionals
- l. Dental public health programs
 - i. Status and trends
 - ii. Public health infrastructure and capacity
 - iii. Current status: Structure and funding
 - iv. Current status: Oral health program performance

Content: oral health programs in the community

Objectives

1. Identify oral health programs at the national, state, and local level
2. Discuss the essential public health services for oral health
3. Describe the four poses of organizing an affective community oral health program
4. Define goals and objectives
5. Explain how program goals and objectives are used in program planning, implementation and evaluation
6. Describe the importance of community water fluoridation as a public health measure.
7. Identify the different funding streams and structures for obtaining dental services through public health systems

Outline:

- a. General Health and oral health
- b. National state and local programs: role of the health department

- i. national level
 - ii. state level
 - iii. Local level
 - v. Essential Public health services for oral health
- c. Assessment, Planning, Implementation, and Evaluation
 - i. Assessment
 - ii. Planning
 - iii. Implementation
 - iv. Evaluation
- d. Primary Prevention programs: Fluorides, sealants, oral health education
- e. Community Water Fluoridation
 - i. Fluoridated communities
 - ii. Cost of water Fluoridation
 - iii. Optimal amounts of fluoride
 - iv. Examples of community water fluoridation program
 - v. Other fluoride programs
 - vi. Additional fluoride sources
 - vii. Antifluoridationists
- f. Dental Sealants
- g. Oral Health Education
 - i. State oral health programs
 - ii. School oral health programs
- h. Secondary and tertiary prevention programs
 - i. treatment component
 - ii. Dental home
 - iii. Services for older adults
- i. Financing programs
- j. Federal initiatives

k. Qualified Health Center

content: Research

Objectives

1. Differentiate between the hypothesis and the null hypotheses of a research study.

2. Explain the importance of the scientific method in research.
3. Discuss sampling techniques and their uses.
4. Define a population and a sample as related to research
5. Discuss the difference between the independent and dependent variables
6. Use the terms mean, median, and mode to express the results of data collection
7. Define the terms continuous data and discrete data and their respective scales of measurement
8. Discuss the uses of v various statistical techniques
9. Use different type of displays to exhibit data
10. Explain the difference between type I and type II errors
11. Define probability and statistical significance
12. Express the importance of evaluating dental literature
13. Explain the criteria for reviewing scientific literature
14. Review a scientific journal article relating to dentistry

Outline

- a. The scientific method and development of a research problem
- b. Formulation of a problem
- c. Formulation of a hypothesis
- d. Collecting data
 - i. Population and Sampling
 - ii. Experimental and control groups and variables
 - iii. data
- e. Data analysis and presentation of results
 - i. statistics
 - ii. Measures of central tendency
 - iii. Measures of Dispersion
 - iv. Correlation
 - v. Presentation of the Data
 - vi. Inferential statistics
 - vii. Parametric inferential statistics
 - viii. Nonparametric inferential statistics
 - viii. Determining statistical significance
- e. Formulation of a conclusion and relationship of results to the hypothesis
- f. Analysis of the literature

- g. Current topic of interest example: Bisphosphonate-related osteonecrosis of the Jaw
- h. Evaluation of the selected literature
- i. The primary research manuscript
- j.
 - i. Abstract
 - ii. Materials and methods
 - iii. results

Content: Health Promotion and Health Communication

Objectives:

1. Apply various health promotion strategies and theories to situations for promotion of oral health.
2. Follow a sequence of steps in the health communication process when developing a health communication project.
3. Discuss the distinctions amount generic targeted personalized and tailored health messages.
4. Identify strategies for delivering health information to consumer groups by using materials activities and evaluation methods that are culturally sensitive and linguistically competent.
5. Outline the basic components, advantages and limitations of poster presentations, oral papers, and roundtable discussions a method for communicating scientific information to health professionals.
6. Identify and take advantage of opportunities for person a growth and development in health promotion and health communications.

Outline:

- a. Health promotion
 - i. Intrapersonal level
 - ii. Interpersonal level
 - iii. community level
- b. Expanding dental hygiene knowledge and strategies
- c. Health communication and health marketing as new wields
- d. Framing health messages
- e. Selecting and evaluating communication formats for different audiences
- f. Resources for professional development

Content: Social Responsibility

Objectives:

1. Define the terms social responsibility and professional ethics
2. Discuss the various opinions surrounding health as a right or a privilege.

3. Explain how the current delivery of oral health care services affects access.
4. Identify how the concept of need versus demand affects allocation of resources and the hygienists role as costumer advocate and educator.
5. Explain the roles of the dental hygienist as they relate to community education, risk communication, and leadership.
6. Explain the process for formulating oral health policy, informally and formally(legislative process)

Outline:

- a. Social responsibility and professional ethics
 - a. Social responsibility
 - b. Professional ethics
- b. A system in crisis
- c. Health care: a privilege or a right?
- d. What is the role of government in paying for and assuring services
 - a. Health care as a right
- e. Policy development
- f. access to oral health care
- g. Distribution of health resources
 - i. shortage of dental professionals
 - ii. Need versus demand
- g. Patient responsibility
- h. Patient confidentiality
- i. Risk communication
 - a. Understanding risk
 - b. Communication
 - c. Comparative analysis
- j. Perceived risk
 - a. Responsibility in communication
- k. Domestic violence
- l. Leadership

Content: Cultural competency

Objectives:

1. Describe key demographic, social, and cultural shifts and trends influencing oral health among culturally diverse groups in the United states.
2. Discuss the impact of population trends in oral health and provision of oral health services to individuals and groups.
3. Define the terms cross-cultural communication, health disparities, and cultural diversity.

4. Define culture and cultural competency and explain why they are important.
5. Identify the Oral Health Care Culturally competent (OHCCC) guidelines.
6. Discuss the components of the cultural competency continuum ladder
7. Describe the applicator of strategies and approaches that enhance cross cultural communication and education in the oral health care settings.
8. Apply the models described in the chapter for the provision of culturally competent health care.
9. Discuss the responsibility of the dental hygienist with respect to cultural competence and the role in providing care to special populations.

Outline:

- a. Today's evolving diverse population
- b. Considering culture
 - i. What is culture?
 - ii. Why consider culture?
- c. Cultural competency
- d. Cultural competency models, frameworks, and strategies
 - i. Cultural competency education model
 - ii. Cultural competency continuum
- e. Community and organizational cultural competence
- f. Effective cross-cultural communization
 - a. Purnell model for cultural competence
 - b. Patient- centered model
 - c. Culturally and linguistically appropriate services
- g. The culture of health

Content: Service Learning

Objectives:

1. Discuss traditional outreach efforts.
2. Discuss experiential learning methods and their unique purposes.
3. Define service-learning and list distinguishing characteristics.
4. List benefits and challenges of service-learning.
5. Use resources to plan and implement service-learning.

Outline:

- a. Dental hygiene community service outreach efforts
 - i. Traditional outreach efforts
 - ii. Experiential outreach efforts
 - iii. Experiential learning theory is different form cognitive learning theory
- b. Service learning and its distinguishing characteristics

- i. Service learning defined
- ii. Distinguished characteristics of service learning
- iii. Community partner collaboration
- iv. Mutual objective formation
- v. Orientation
- vi. Preparation
- vii. Service learning experience
- viii. Reflection
- viiii. Evaluation
- x. Community partner benefits
- xi. Benefits for the nation's oral health agenda

b. Challenges of service learning

Content: Planning a Student Community Project with Head start

Objectives:

1. Define the purpose of a student community project.
2. Define needs assessment as it applies to selecting a target population.
3. Prepare planning forms, including selection of the target population, assessment visit, and written agreement of project goals and objectives.
4. Define the goals and mission of head Start.
5. Describe the oral health component of Head Start.
6. Apply the knowledge of planning , implementation, and evaluation to set up a community project.

Outline:

a. Community Oral Health Project

- i. community oral health project description
- ii. selecting a target population
- iii. Next steps in the planning process
- iv. evaluation

b. Head Start

- i. Head start Program description
- ii. Health services in head start
- iii. Oral health services
- v. Opportunities for dental hygiene students⁴⁸⁰

- c. Head Start Oral health project
 - i. Community project goal
- d. Dental Hygienists working with Head Start
 - i. Dental hygienists: a valuable resource
 - ii. The national maternal and child oral health resource center
 - iii. Call to action

DHY 260 - Community Dentistry

Quiz A - Introduction to Dental Public Health Name: _____

Module #1

J Williams

Closed Book

Select the best response for each of the following multiple choice items; then circle the letter for that response. There is only 1 correct response for each item. (10 points each)

1. Who is Kathleen Sebelius?
 - a. Secretary of the DHHS.
 - b. Secretary of the NDA.
 - c. Surgeon General of the DHHS.
 - d. Surgeon General of the VA.

2. Who is Regina M. Benjamin?
 - a. Secretary of the DHHS.
 - b. Secretary of the NDA.
 - c. Surgeon General of the DHHS.
 - d. Surgeon General of the VA.

3. A family of 4 could earn about _____ and still be within the 2009 Federal Poverty Guidelines.
 - a. \$10,830
 - b. \$12,500
 - c. \$19,300
 - d. \$22,050

4. The mission of the _____ is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability.
 - a. FDI
 - b. IHS
 - c. NIH

- d. VA
5. According to the Institute of Medicine's functions of public health agencies, placement of sealants or treatment of dental caries would be accomplished as part of:
- assessment.
 - assurance.
 - policy development.
6. The National Institutes of Health developed a consensus statement about the diagnosis and management of dental caries. This would be part of the Institute of Medicine's function of:
- assessment.
 - assurance.
 - policy development.
7. Poverty is not equally distributed across racial/ethnic groups. Poverty level does not effect dental caries rates.
- Both statements are true.
 - Both statements are false.
 - The first statement is true; the second statement is false.
 - The first statement is false; the second statement is true.
8. According to the membership of the Association of State and Territorial Dental Directors, more than 8 dental hygienists are or have been directors of their state dental public health agency. The director of the Iowa state dental program is a dentist.
- Both statements are true
 - Both statements are false
 - The first statement is true; the second statement is false
 - The first statement is false; the second statement is true
9. The concept of public health leads one to understand that the patient is
- the community
 - individuals associated with a particular group or culture
 - groups within the community that are unhealthy
10. Healthy People 2020 is a projection of what would constitute meeting the needs of society to obtain health for the citizens in the United States based upon assessments. Following the public health functions, one would expect the next step from this document to be:
- more assessments
 - policy development
 - assurance
 - evaluation

X-tra credit:

List four target groups that have been traditionally at high risk for dental needs: (8 pts)

-
-
-
-

From your experiences so far as a dental hygiene student provider and from your explorations of our regional area for this module, where could you refer these groups for dental services (at least two sites). (2 pts)

PEER AND SELF EVALUATION RUBRIC

PROJECT

TITLE: _____

GROUP

MEMBERS: _____

Please rate your contribution to the group and evaluate the group on a scale from 1 – 10 with 10 being the highest.

INDIVIDUAL EVALUATION:

Name _____

____1. Following teacher's instructions

____8. Respecting others

____2. Asking meaningful questions

____9. Explaining things to others

____3. Contributing ideas and information

____10. Doing things on time

____4. Helping the group stay on task

____11. Doing my best

____5. Contributing materials

____6. Asking for help when needed

____7. Sharing responsibilities

I could improve on _____

I rank my contributions to the group as _____ because _____

GROUP EVALUATION:

____1. Following teacher's instructions

____6. Respecting others

____2. Asking meaningful questions

____7. Explaining things to others

____3. Contributing ideas and information

____8. Solving problems within
the group

____4. Staying on task and meeting deadlines

____9. Consistent effort

____5. Sharing responsibilities

____10. Producing a quality product

I rank our group's efforts at working together as _____ because _____

PEER EVALUATION:

Rank each individual group member using a scale of 1 – 10. Explain your reasons for the assigned ranking.

Ranking

Group Member

DHY 310 Dental Hygiene Practicum II

Fall 2016

Instructor Contact Information

Jody Williams

Phone: (641) 683-5120 | (800) 726-2585, ext.5120

Email: Jody.Williams@indianhills.edu

Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 6) This course will provide necessary instructional supervised practice in our on campus dental clinic. This course is designed to prepare the student to assume the role as preventative care provider. Emphasis will be placed on patient selection and treatment, clinical time management and office operations. Competency is achieved on manikins and clinic patients.

Prerequisites

Required: DHY 290 Dental Hygiene Practicum II

Required Textbooks

IHCC Dental Hygiene Clinic and Procedural Manual

Beemsterboer, P & Perry, D.(2007)*Periodontology for the dental hygienist*3rd ed. Elsevier: Saint Louis

Jeske, A (2014) *Mosby dental drug reference* 11th ed. Elsevier: Saint Louis

Darby.M & Walsh,M. (2014) *Dental hygiene theory and practice* 4th ed. Elsevier: Saint Louis

Course Focus

The course focus is to provide client centered care and facilitate client access to oral health services. the provision of oral health care and to apply the planning, implementation and evaluation phases.

Course Goals/Student Learning Outcomes

Upon successful completion of this course, the student will be able to:

1. Produce exit level mastery of the initial and ongoing client assessment procedures.
2. Produce exit level mastery of writing the dental hygiene presumptive diagnosis, intervention, and care plan.
3. Present the planned treatment to the client.
4. Utilize the client's assessment data to determine the dental health education needs of the client.
5. Demonstrate the oral hygiene instructions needed for the client.
6. Provide interceptive management of client behavior for reduction of caries and periodontal disease.
7. Provide therapy for the elimination of habits that are potentially harmful to the dentition/oral cavity.
8. Produce exit level mastery of debriding (scaling) and detoxification (root planing) utilizing manual and mechanical procedures.
9. Produce exit level mastery of total client care utilizing other clinical dental hygiene procedures as indicated in the class assignment schedule.
10. produce exit level mastery in dental hygiene clinical skills by completing process evaluations (direct observations).
11. produce mastery of sterilization, assisting, and clerical responsibilities.
12. evaluate completion of the minimum hours in the clinical setting providing client care as outlined in the class assignment schedule.
13. Complete the seminar objectives as outlined in the class assignment schedule.
14. Demonstrate exit level mastery of professional conduct.

Course Calendar clinic

The course calendar outlines the course requirements to include clinical assessments, clinical examinations and instructor/student discussions. It is imperative that you make your clinic sessions. A dental unit is reserved for you. It is extremely difficult to have the open unit for you outside of this session time.

1 st session	2 nd session	3 rd session	Goal#
	Set personal goals for term And due dates for DOs		1,2,3,4,5,6,7,8,9, 10,11,12,13,14
4th session	5 th session	6 th session	
Start instrument check off	clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
7th session	8 th session	9 th session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
10th session	11 th session	12 th session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 110,11,12,13,14
13th session	14 th session	15 th session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
16th session	17 th session	18 th session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
19th session	20 th session	21 st session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
22nd session	23 rd session	24 th session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
25th session	26 th session	27 th session	
Start processes	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
28th session	29 th session	30 th session	
Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
31st session	32 nd session	33 rd session	

Clinic session	Clinic session	Clinic session	1,2,3,4,5,6,7,8,9, 10,11,12,13,14
34th session	35 th session	Clinic cleanup	

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class. This also includes no texting during class time.

Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class or lab you must call and let me know.

Grading Scale

Letter	% Range
A	93-100
B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used

to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Course Outline

1. Demonstrate the initial and ongoing client assessment procedures.
2. Demonstrate proficiency of writing the dental hygiene presumptive diagnosis.
3. Intervention, and care plan for clients presenting with health to early periodontitis

conditions.

4. Demonstrate writing the dental hygiene presumptive diagnosis, intervention, and care plan for clients with moderate to severe periodontitis conditions.
5. Present the planned treatment to the client.
6. Utilize the client's assessment data to determine the dental health education needs of the client.
7. Demonstrate the oral hygiene instructions needed for the client.
8. Provide interceptive management of client behavior for reduction of cavities and periodontal disease.
9. Demonstrate proficiency of debriding (scaling) and detoxification (root planning) utilizing manual and mechanical procedures.
10. Demonstrate proficiency of other clinical dental hygiene procedures as indicated in the CAS, i.e. antimicrobial irrigation, polishing, radiographic surveys, fluoride application, sealants, root desensitization, etc.
11. Demonstrate proficiency in dental hygiene clinical skills by completing process evaluations (direct observations).
12. Demonstrate proficiency in ancillary procedures in dental hygiene care including.
 - a. Sterilization: maintain asepsis in the recirculation/sterilization area and the use of biological indicators.
 - b. Office management skill: utilize the technology in gathering information through the office management software.
 - c. Assisting: work as team-members to help in improving the client's oral health.
13. Demonstrate proficient professional conduct. Any gross deficiency in this area will result in a 0.0 grade.
14. Successfully complete seminar objectives as outlined in the course assignment schedule, i.e. group problem-solving exercise, participation in the group record keeping sessions, role-playing of dental hygiene therapist/client interactions pertaining to behavior modification and management of changes, presentation of an article related to client motivation and management, introduction to new clinical skill procedures, etc.

DHY 310 Clinic LEARNING OBJECTIVES & COURSE POINTS

The student will be able to:

Procedure #	Points
A. Demonstrate exit level mastery of the initial and ongoing client assessment procedures on:	
1. Health Histories/Oral Examinations	
(110) (112) a. all assigned achieving a minimum average of 97% =	4
b. 98% quality average or higher =	6
2. Dental/Radiographic Chartings	
a. 97% quality average in each category listed below	
(076) (1) two (2) mixed dentition =	1
(077) (2) one (1) fixed bridge =	1
(070)(072) (3) adult and children (no minimum)	1
(071)(075) (4) radiographic (no minimum)	1
b. 98% quality average or higher each	+ 1
4. Periodontal Chartings	
(074) a. all assigned achieving a minimum average of 90% =	1
b. 95% quality average or higher =	2
(073) c. minimum two (2) voice activated perio chartings =	1
B. Demonstrate exit level mastery of writing the dental hygiene care plan including:	
1. Denta Hygiene Diagnosis, Goal, Intervention, and Treatment	
(079) a. all assigned achieving a minimum average of 97% =	1
b. 98% quality average or higher =	2
C. Demonstrate exit level mastery of implementing dental health education by:	
1. Individualizing oral hygiene needs and instructions (patient education)	
(301) a. all assigned achieving a minimum average of 98% =	1
b. 99% quality average or higher =	2

Procedure #		Points
	D. Provide interceptive management of client behavior by:	
(502)(503)	1. Completing a plaque and/or hemorrhage reduction plan a. a minimum of one (1) periodontally involved client achieving a minimum quality average of 95% = b. 96% quality average or higher =	2 3
(507)	2. Completing nutritional assessments a. assessing the nutritional diet on all assigned clients b. minimum of 2 assessments c. minimum of 4 assessments	2 3
(601)	3. Completing habit control therapy and writing a summary a. a minimum of (1) client achieving a minimum quality average of 95% = b. 96% quality average or higher =	2 3
	E. Demonstrate exit level mastery of debriding and detoxification by:	
(001)(002)	1. Achieving a minimum quality average of 4.0 for the recommended thirty clients, including the minimums listed below: a. Three (3) children (12 quadrants) =	1
(003)(004) (005)	b. One (1) Health classification (4 quadrants) =	1
(006)(007)(008)	b. Eleven (11) Periodontal involved clients (44 quadrants from the categories listed below): 1) Two (2) Gingivitis classification (8 quadrants) =	1
(009)	2) Two (2) Perio/slight attachment loss (8 quadrants) =	2
(010)(011)	3) One (1) Perio/mod or severe attachment loss (4 quadrants) =	1
	4) Six additional clients: gingivitis to periodontitis (24 quadrants) =	2
	c. 4.25 quality average or higher on categories a, b, & c =	+1 each
(016)(017)	2. Three (3) clients of the recommended thirty with moderate or heavy subgingival calculus (12 quadrants) =	1
	F. Demonstrate exit level mastery of total care utilizing other clinical dental hygiene procedures including:	
(015)	1. Power scaling a. minimum of eight (8) quadrants = b. power scaling documented for twenty-eight (28) quadrants =	4 5

Procedure #		Points
	2. Root detoxification with Gracey curettes a minimum of four (4) quadrants (minimum of two (2) teeth per quadrant)	
(018)	a. achieving a minimum 4.0 quality average =	4
	b. 4.25 quality average or higher =	5
	3. Polishing achieving a 4.25 quality average	
(019)(020)	a. a minimum of 8 rubber cup & 8 air polishing=	4
	b. 4.5 quality average or higher =	5
	4. Radiographic Surveys achieving a 90% minimum quality average	
(030)	a. a minimum of four (4) FMS =	2
(037)	b. a minimum of six (6) BWX =	2
	c. 95% quality average or higher =	+1 each
(040)	5. Local Antimicrobial placement	
	a. a minimum of 1 periodontal sulcus placement =	1
(046)	6. Topical Fluoride applied to a minimum of 9 clients =	1
	7. Amalgam polishing	
	a. 14 amalgam polishing achieving a 90% minimum quality average =	3
(050)	i. Class I amalgams	
(051)	ii. Class II amalgams	
(052)	iii. Class V amalgams	
	b. 95% quality average or higher =	6
	8. Study models achieving a 90% minimum quality average	
(060)	a. Four (4) adult sets trimmed =	3
	(Note: Cannot be DHY students, faculty, or receptionists)	
(062)	b. One (1) child set trimmed =	2
	c. 95% quality average or higher =	+1 each
(082)	9. Soft tissue curettage on a minimum of four (4) areas (tissue areas assigned around 4 teeth) =	1
	10. Sealant placement achieving a 90% minimum quality average	
(083)	a. Ten (10) teeth (chemical cured) =	1
(084)	b. Ten (10) teeth (light cured) =	1
	c. 95% quality average or higher =	+1 each
(088)	11. Root desensitization on four (4) teeth=	2
	12. Assess the need for follow-up appointment (s)	
(090)	a. a minimum of 15 clients =	1
	b. Follow-up assessment documented on 25 clients or more =	2
(099)	13. Antimicrobial irrigation on a minimum of sixteen (16 quadrants) =	1
	14. Completing a minimum number of block injections for pain control prior to graduation	
(100)	b. Two (2) Mental block =	
(101)	c. Two (2) Long Buccal block =	
(102)	d. Two (2) Greater Palatine block=	
(103)	e. Two (2) Nasopalatine block =	
(104)	f. a minimum total of 10 injections =	1

Procedure #		Points
15.	Completing a minimum number of infiltration injections for pain control prior to	
(105)	a. Two (2) Anterior Superior Alveolar infiltration =	
(106)	b. Two (2) Middle Superior Alveolar infiltration =	
(107)	c. Two (2) Posterior Superior Alveolar infiltration =	
	d. a minimum total of 6 injections =	1
G.	Demonstrate exit level mastery in dental hygiene clinical skills by completing process evaluations including:	
1.	One (1) Instrumentation Direct Observation	
(410)	a. achieving a minimum quality average of 96% =	3
	b. 99% quality average or higher =	4
2.	One (1) Active Periodontitis Case Presentation Direct Observation	
(427)	a. achieving a minimum quality average of 95% =	1
	b. 96% quality average or higher =	2
3.	One (1) Geriatric Case Presentation Direct Observation	
(428)	a. achieving a minimum quality average of 95% =	1
	b. 96% quality average or higher =	2
4.	Periodontal Client Case Summary	
(450)	a. Oral and written presentation achieving a minimum quality average of	2
	b. 95% quality average or higher =	4
5.	Two (2) Fluoride Supplementation for clients with m/h caries risk Direct Observations	
(466)	a. achieving a minimum quality average of 95% for	1
(467)	ii. Pregnancy or children up to the age of 5 =	1
	b. 96% quality average or higher =	+1 each
(750)	7. One (1) client from the health or gingivitis category challenge (4 quadrants) debriding and polishing within 20 minutes.	
	a. minimum quality average of 4.0 =	5
	b. 4.5 quality average or higher =	7
(752)	8. One quadrant (6 teeth must be present) from a gingivitis or periodontitis category with moderate subgingival calculus challenge (typical Board Client) debriding, detoxification, and polish within 40 minutes.	
	a. minimum quality average of 4.0 =	5
	b. 4.5 quality average or higher =	7
(754)	9. Four quadrants from a gingivitis or periodontitis category with heavy subgingival calculus challenge (quads. may be from different clients) debriding, detoxification, and oral irrigation, within 60 minutes per quadrant.	
	a. minimum quality average of 4.0 on 4 quads =	5
	b. 4.5 quality average or higher =	7
10.	Extra Challenges from a gingivitis or periodontitis category with heavy subgingival calculus	
(756)	a. minimum quality average of 4.0 per quad =	+1/quad

11	Placement of a ZOE Intra-coronal Sedative Temporary Dressing	
(026)	Direct Observation (enrichment - optional) =	1

Procedure # ↓		Points ↓
(027)	12. Removal of a ZOE Intra-coronal Sedative Temporary Dressing Direct Observation (enrichment - optional) =	1
(028)	13. Suture Removal Direct Observation (enrichment - optional)=	1

H. Demonstrate exit level mastery in assisting, sterilization, and clerical responsibilities by:

(720)	1. Achieving a minimum quality average of 95%	
	a. a minimum of three (3) rotations =	2
	b. 98% quality average or higher =	3

I. Demonstrate exit level mastery of professional conduct and time requirements by:

(700)	1. Affective behavior with clinical clients, an overall average	
	a. Achieving a minimum quality average of 96% =	4
	b. 97% quality average or higher =	6
(701)	2. Clinical requirements completed by due dates =	0-4
(705)	3. Outstanding attitude/conduct documented =	1/incident
(706)	4. Poor attitude/conduct documented =	-
	1/incident	
(740)	5. (No show for appt, rudeness, incomplete providing client care =	2
	(Failure to complete 2/3 or more of the requirements including time (448 units) will result in a 0.0 grade)	

J. Successfully complete the seminar objectives including:

(201)	1. Identifying clinical procedural situations for the group to problem solve and participate in the problem solving =	0-3
(202)	2. Participating as a team member to develop new skills for use in the dental hygiene clinic =	0-3
	*You will be expected to attend 60% of the continuing educations that SADHA will sponsor. you attend more continuing educations you will be rewarded with a 705.	If
(204)	3. Participating in weekly conference with the clinic counselor and peers to discuss care planning, assess student evaluation by clinical instructors, evaluate progress made toward meeting clinical requirements, set goals for improvement, and establish points for completed clinical requirements =	0-3
	(Attendance in small group sessions is mandatory unless the absence is excused by the instructor. More than two (2) absences will result in zero (0) points for this objective)	
(206)	4. Role playing for job interviews =	0-3

(207)	5.	Research and present on alternative practice settings for the dental hygienist =	0-3
(208)	6.	Discuss practice management issues in the dental office =	0-3
(209)	7.	Debate a current issue in dental hygiene =	0-3
(210)	8.	Survey and collect data concerning the economic management of a dental office =	0-3
(215)	9.	Submitting and achieving four (4) individual goals. The goals will focus on clinical skills, time management, communication skills, and professional/ethical conduct =	0-4

Procedure #			Points
(226)	10.	Writing a resume =	0-3
(227)	11.	Writing a cover letter =	0-3

K. Successfully complete any outstanding incomplete requirements from previous semesters

Failure to complete all clinical procedures from any dental hygiene clinical course will result in an incomplete and must be completed in DHY 228S before the student can graduate with a degree in dental hygiene.

Goals (215)

Name _____ Group Counselor _____

My personal goals for the semester that will allow me to grow both clinically and professionally are:

Goals that I have set for myself....	These are the Strength(s) of mine that will help me to meet my	I'll know I have achieved my goal when...
A goal that is affirming or developing my Strengths:		
DHY/academic/study goal:		
career goal:		
relationship goal:		

Assessment of Goal Achievement

Rank your progress toward achieving your goals using the following scale: 1-5 with five being the best.

Midterm

1. _____

End of Term

1. _____

2. _____

3. _____

4. _____

2. _____

3. _____

4. _____

Challenge Criteria

And Options after Completion of Challenges

RATIONALE:

In order to better prepare you for private practice, you are required to complete three challenge clients. As specified earlier in the manual, the challenges are to include: one case type H or I, one quadrant with moderate subgingival calculus -Challenge board client|| (basically a case Type I or II), and four quadrants with heavy calculus (basically a case type II, III or IV client).

PROCEDURE:

The challenge consists of...

750 – Health or gingivitis category; debriding and polishing the entire mouth in 20 minutes.

752 – Gingivitis or Periodontitis category with moderate subgingival calculus; debriding, detoxifying, and polishing the quadrant in 40 minutes.

754 – Gingivitis or Periodontitis category with heavy subgingival calculus; debriding, detoxifying, and oral irrigating each quadrant in 60 minutes. The four quadrants can come from any combination of case type II, III, or IV.

Reminder: Moderate calculus: less than ½ the dentition but more than ¼ the dentition.

All preliminary paper work must be completed prior to the time of the challenge, i.e., the dental hygiene care plan and OHI, local anesthesia or any other procedures that have been treatment planned for that appointment. When you are ready to begin, check in with the clinic instructor who will log the start time on your scaling evaluation form.

When you are finished, immediately have the instructor initial the end time (even if there is a waiting list of students). If it is necessary to take time out (bathroom break, etc.), please have the instructor document this time out.

To earn points you must successfully complete the challenge within the time allotment and earn a minimum of 4 points in all of the procedures being evaluated.

OPTIONS:

When you have successfully completed all three challenges, you are eligible to act as an assistant in the clinic with either the first year students or your peers. You will earn time for this as well as valuable experience.

AUTHORIZED CLINICAL PROCEDURES FOR CLINIC ASSISTANTS:

1. Spot-checks for calculus and root detoxification: have the student identify the tooth and area; ask what problem is preventing them from doing the procedure themselves; explore the area, and give them your assessment of the solution to the problem; assist the student with the necessary instrumentation and adaptation; do not perform the procedure for them. If you are unable to help them, get a clinical instructor.
2. Help with any instrumentation difficulties, but do not fill out a direct observation form.
3. Other tasks may be assigned at the discretion of the clinical instructors on duty based on demand for help. Dental charting up-dates and PHP's may be checked. However, oral examination and original PHP chartings cannot be checked by the Clinical Assistant.

Debate issues for dental hygiene

You and your classmates will debate issues concerning the profession of Dental Hygiene and your future career. As a team, be prepared to lead discussions and answer questions on the specific topic—you will be the "expert" on your side/view of the topic. As spectators, take notes so you can ask intelligent questions.

The side you debate may or may not exactly be your present view; your goal is to convince the class, myself, and hopefully yourself, that it is your view. You will use current research and information to support your side of the debate topic. You will gain a broader understanding of issues surrounding dental hygiene and be able to know where to go to get information to support your views.

1. Length of debate is ten minutes--each side has five minutes to present the material.
2. Use note cards and include a bibliography, submit these for a grade.
3. Sources--use professional journals, books in the library, and the internet.
4. Topics (subject to change)
 - a. Holistic Dentistry verses Conventional Dentistry
 - b. Preceptorship verses Conventional Dental Hygiene Education
 - c. Supervision laws for Dental Hygienist verses no supervision laws
 - d. Membership to your professional organization verses no membership to ADHA.

Direct Observation

Student: _____

Evaluation Sheet

Date: _____

Instrumentation/Skills Assessment (410)

- Criteria:
- A - acceptable = 2 pts. each
 - I - improvable = 1 pt. each
 - R - redo = 0 pts. each, remediate = 1 point

I. **Scalers and Graceys:**

	Anterior	Posterior	
	Curvett	Gracey	Mini Lange After Curett
A. Identification	_____	_____	_____
1. Identify instrument	_____	_____	_____
2. State objective for use	_____	_____	_____
B. Preparation			
1. Client position	_____	_____	_____
2. Operator position	_____	_____	_____
3. Light adjustment	_____	_____	_____
C. Instrumentation			
1. Grasp	_____	_____	_____
2. Fulcrum	_____	_____	_____
3. Wristrock	_____	_____	_____
4. Adaptation	_____	_____	_____
5. Stroke	_____	_____	_____

RDH's Initials

_____	_____	_____
_____	_____	_____
_____	_____	_____

II. **Power Scalers:**

	<u>Ultrasonic</u>	<u>Piezoelectric regular tip</u>	<u>Piezoelectric left or</u>
A. Identification			
1. Identify insert tip	_____	_____	_____
2. State power setting	_____	_____	_____
3. Properly insert tip into sleeve	_____	_____	_____
4. State objective for use	_____	_____	_____
B. Preparation			
1. Client position	_____	_____	_____
2. Operator position	_____	_____	_____
3. Light adjustment and suction	_____	_____	_____
C. Instrumentation			
1. Grasp	_____	_____	_____
2. Fulcrum	_____	_____	_____
3. Finger Motion	_____	_____	_____
4. Adaptation	_____	_____	_____
5. Stroke	_____	_____	_____

RDH Initials

III. **Soft Tissue Curettage:**

- A. Identification of areas and rationale for selection
- B. Preparation of client (explanation of procedure and positioning), also operator
- C. Evaluation of instrumentation and results

RDH initials

TOTAL POINTS = _____ ÷ 89 = _____ %

Date In: _____

Direct Observation

Student: _____

Case Presentation

Date: _____

Active Periodontitis (427)

RDH Instructor: _____

Criteria: A - acceptable An A, acceptable, earns maximum points possible
 I - improvable An I, improvable, earns 80% of the maximum points
 R - redo An R, redo, earns 0% until remediated.
 If remediated to an A, it will earn 50% of the possible points

(10 points each)

_____ 1. Identification of the problem.

RDH comments:

_____ 2. Explanation of the problem in terms the client understands using professional terminology (e.g. the assessment data reveals (indicates) you have CP.....)

RDH comments:

_____ 3. Explanation of the long range implications of the problem.

RDH comments:

_____ 4. Identification of alternative solutions.

RDH comments:

_____ 5. Dental Hygiene care plan presentation including all necessary procedures.

RDH comments:

_____ 6. Dental Hygiene care plan organization in logical sequence.

RDH comments:

_____ 7. Explanation of cost including appointment time and home care.

RDH comments:

_____ 8. Answers client's questions in terms the client can understand.

RDH comments:

_____ 9. Evaluation of student's communication skills.

RDH comments:

_____ 10. Evaluation of student's motivational skills.

RDH comments:

Total points = _____ ÷ 100 = _____%

Date In _____

_____ 7. Explanation of cost including appointment time and home care.

RDH comments:

_____ 8. Answers client's questions in terms the client can understand.

RDH comments:

_____ 9. Evaluation of student's communication skills.

RDH comments:

_____ 10. Evaluation of student's motivational skills.

RDH comments:

Total points = _____ ÷ 100 = _____ %

Date In _____

DHY 310

Student: _____

Direct Observation
Case Presentation

Date: _____

Fluoride Supplementation (466 & 467)

Criteria:	A - acceptable	An A, acceptable, earns maximum points possible
	I - improvable	An I, improvable, earns 80% of the maximum points
	R - redo	An R, redo, earns 0% until remediated. If remediated to an A, it will earn 50% of the possible points

(466) Presentation to a child age 6 through adulthood with mod/high risk for caries.

RDH _____

Client name _____ Age _____

_____ Identify the fluoride concentration in the primary source of drinking water/dietary fluoride. www.apps.nccd.cdc.gov/MWF/Index.asp

Amount in mg. or ppm _____

_____ What is the history of topical fluoride experience to date

Form _____ Frequency _____

_____ Explain how the fluoride affects the dentition?

_____ What is the caries risk factor – moderate, or high?

_____ What is the recommended dietary fluoride supplement for ages 6 – 16 years of age?

_____ Additional fluoride recommendations -

_____ Other preventative measures -

Total points = _____ ÷ 70 = _____ % Date In _____

(467) Presentation to an expectant parent, or parent/guardian to children 0 -5 years of age.

RDH _____

Client name _____ Age _____

_____ Identify the fluoride concentration in the primary source of drinking water. www.apps.nccd.cdc.gov/MWF/Index.asp

Amount in mg. or ppm _____

_____ Explain how the fluoride affects the dentition?

_____ What is the caries risk factor – low, moderate, or high?

If Caries Risk Factor is moderate or high finish the following statements

_____ What is the recommended dietary fluoride supplement for ages <6 years of age

_____ Additional fluoride recommendations including toothbrush monitoring -

_____ Other preventative measures –

Total points = _____ ÷ 60 = _____ % Date In _____

DHY 310

Student: _____

Direct Observation/**Optional**

Date: _____

Evaluation Sheet

Office _____

Intra-coronal Sedative Temporary Dressings (026 & 027)

Criteria:	A - acceptable	An A, acceptable, earns maximum points possible
	I - improvable	An I, improvable, earns 80% of the maximum points
	R - redo	An R, redo, earns 0% until remediated.
		If remediated to an A, it will earn 50% of the possible points

(26) Placement of a ZOE Intra-coronal Sedative Temporary Dressing

_____ Assemble necessary armamentarium (10 points)

_____ Rubber dam placed correctly (10 points)

_____ Matrix retainer placed correctly (10 points)

_____ Mix IRM cement to the consistency of thick putty (10 points)

_____ Condense cement into proximal box (10 points)

_____ Condense cement into remainder of cavity preparation (10 points)

_____ Seal occlusal cavosurface margins (10 points)

_____ Carve occlusal embrasure and marginal ridge (10 points)

_____ Remove matrix retainer (10 points)

_____ Carve restoration to reproduce basic anatomy (10 points)

_____ Create flush cavosurface margins (10 points)

_____ Carve so that restoration is out of occlusion (10 points)

Total Points = _____ ÷ 120 = _____ % Date In _____

(27) **Remove the ZOE Intra-coral Sedative Temporary Dressings**

_____ Assemble necessary armamentarium (10 points)

_____ Carefully removes the cement without removing tooth structure (10 points)

_____ Clean and dry tooth with cotton pellets (10 points)

_____ Tooth structure is intact (10 points)

_____ Soft tissues are intact (10 points)

Total Points = _____ ÷ 50 = _____ % Date In _____

DHY 310

Student: _____

Direct Observation/**Optional**

Date: _____

Evaluation Sheet

Office: _____

Suture Removal (028)

Criteria: A - acceptable
 I - improvable
 R - redo

An A, acceptable, earns maximum points possible
An I, improvable, earns 80% of the maximum points
An R, redo, earns 0% until remediated.
If remediated to an A, it will earn 50% of the possible points

(10 points each)

_____ Armamentarium has been assembled

_____ Explain procedure to the client

_____ Debride the area

_____ Locate and count sutures; compare to number placed

_____ Grasp knot with cotton forceps

_____ Cut suture

_____ Use the knot to draw suture through tissue

_____ Stop hemorrhage with pressure

_____ Compare number of sutures removed to the number listed in the client's chart

_____ Rinse the client's mouth

Total points = _____ ÷ 100 = _____ % Date In _____

Criteria for Case Summary

Habit Control Therapy Evaluation (601)

- I. Habits to be considered in this category:
 - A. Thumb or digit sucking
 - B. Bruxism/clenching
 - C. Use of tobacco
 - D. Nail biting
 - E. Cheek/lip biting
 - F. Leaning on hand or fist
 - G. Dysfunctional Swallow Pattern
 - H. Any other habit considered to be harmful to dentition or oral cavity

- II. Identification of target maladaptive habits:
 - A. General observation
 - B. Medical and dental histories
 - C. Oral examination
 - D. Family member or acquaintance
 - E. Referral from other Allied Health Professional

- III. Indications and contraindications for therapy:
 - A. Client's chronological and maturational age
 - B. Client's physical development including an assessment of fine and gross motor coordination as well as presenting handicaps
 - C. Client's emotional status
 - D. Effects of the target behavior both real and potential
 - E. Factors contributing to the problem
 - F. Motivation of client/parent if essential to therapy
 - G. Factors contributing to Airway Interference

- IV. Steps in habit therapy program:
 - A. Specify habit and its potentially harmful effects
 - B. Baseline analysis of when habit does and does not occur
 - C. Interventions recommended
 - D. Goal behavior and rewards established
 - E. Generalizing and maintaining goal behavior if reached
 - F. Referrals or recommendations

- V. Case summary of habit therapy should include a brief outline summarizing each of the categories listed above.

- VI. Documentation of habit therapy in client's record:
 - A. Medical/dental histories
 - B. Oral examination
 - C. Treatment plan reflecting number and content of each appointment
 - D. Case summary or other forms used in the therapy
 - E. Referrals or recommendations

Direct Observation

Student: _____

Habit Control Therapy Evaluation (601)

Date: _____

MFT Instructor: _____

Criteria

:

A = Acceptable = earns the maximum points possible.
I = Improvable = earns 80% of the maximum points.

R = Redo = earns 0 points until it is rechecked. When rechecked, if the R is replaced by an A, it will earn 50% of the possible points.

Client _____ Age: _____

_____1. Description of habit including potentially harmful effects: (10 points)

_____2.a. Baseline - Occurrence of habit and pattern of behavior: (10 points)

_____ 2.b. When habit does not occur - include in baseline charting. (10 points)

_____ 3. Intervention: (10 points)

_____ 4.a. Goals – Be specific, i.e., time given for reduction of habit in small steps: (10 points)

_____ 4.b. Rewards – List rewards for success following the goal met: (10 points)

_____ 5. Results of intervention: (10 points)

_____ 6. Number and type of client contacts: (5 points)

____7. Student comments: (5 points)

Total points = _____ ÷ 80 = _____% Date in _____

DHY 310 Requirements that are completed As
you complete each requirement write that person's name in the appropriate box.

(073) 2 Voice Activated Perio Charts

(76) 2 Mixed Dentition

(77) 1 Fixed Bridge

--

(502/503) 1 Plaque and/or hemorrhage reduction plan on a Perio Client

--

(507) Nutritional Assessments – minimum 2/maximum 4 or more

(001)(002) 3 children categories (12 quads)

--

(003)(004)(005)

1 Health classification (4 quads)

--	--	--	--

(006)(007)(008)

2 Gingivitis classifications (8 quads)

(009)
quads)

2 Periodontitis with slight attachment loss (8

(010)(011)

1 periodontitis with moderate or severe attachment loss (4 quads)

--	--	--	--

(006-011)

6 Additional clients: gingivitis or periodontitis (24 quads)

(016)(017)

3 clients with Moderate or Heavy Calculus (12 quads)

(015)

2 Clients Power Scaling (8 quads)

(18)

1 Client Root Detoxification (4 quads)

--	--	--	--

(19)

8 Rubber Cup Polishing

(20)

8 Air Polishing

(030)

4 FMS

(037)

6 BWX

(040)

1 Local antimicrobial placement

--

(046)

9 Fluorides

--	--	--

(050)(051) (052)

14 Amalgam Polishes

(060)

4 Adult Study Models

(062)

1 Child Study Model

--

(82)

4 Areas of Soft Tissue Curettage

(83)

10 Chemical Cured Sealants

(84)

10 Light Cured Sealants

(088)

4 Root Desensitization

(090)

minimum 15/maximum 25 or more Follow-up assessments

(99)

4 Clients Antimicrobial irrigation (16 quads)

--	--	--	--

(100)

2 Inferior Alveolar Blocks

(101)

2 Mental Blocks

(102)

2 Long Buccal Blocks

(103)

2 Greater Palatine Blocks

(104)

2 Nasopalatine Blocks

(105)

2 Anterior Superior Alveolar Infiltrations

(106)

2 Middle Superior Alveolar Infiltrations

(107)

2 Posterior Superior Alveolar Infiltrations

(750)

Health/gingivitis challenge (all 4 quads)

--

(752)

Moderate calculus challenge (1 quad)

--

(754)

Heavy calculus challenge (4 quads)

(756)

Extra heavy calculus challenges

DHY 315 Seminar for Dental Hygiene

Fall 2016

Instructor Contact Information

Jody Williams

Phone: (641) 683-5120 | (800) 726-2585, ext.5120

Email: Jody.Williams@indianhills.edu

Office: IHCC - Main Campus (Ottumwa), room 104 Rural Health Education Center

Course Description

(Credits: 1) This course is a capstone course which will encompass the dental hygiene curriculum. Preparing for the state hygiene board examination will be discussed. Standards for proper patient selection and case studies will be shared and analyzed. Students will also prepare for a career as a dental hygienist. Students will prepare letters of application, resumes, professional portfolios and be interviewed in a mock interview experience.

Prerequisites

Required: DHY 245 Ethics and Jurisprudence

Required Textbooks

Beemsterboer (2014) *Ethics and law in dental hygiene* . Elsevier: Saint Louis

Darby, M. & Walsh, M. (2015). *Dental hygiene theory and practice, 4th edition*. Elsevier: Saint Louis

Kimbrough, V. & Lautar, C. (2007). *Ethics jurisprudence, and practice management in dental hygiene*. Pearson: Upper Saddle River

Course Focus

The course focused on program capstone, interview process and national board preparation.

Course Goals

Upon successful completion of this course, the student will be able to:

1. Understand risk management in the dental office.
2. Develop a rewarding patient relationship.
3. Design a cover letter and resume
4. Complete a mock interview with self-marketing skills
5. Understand the business aspects of dental hygiene
6. Develop and Present a capstone project

Course Calendar

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions.

The course calendar outlines the course requirements to include chapter reading, examinations, quizzes, group exercises and discussions.

Week	Topic	Quiz/ Test / Exercises	Goal #
1	Review of DHY 315 Syllabi Discussion Chapter 9 Ethics in Law in Dental Hygiene technology in dental hygiene	Scenario on technology breaches and HIPAA, group review	1
	Week 1 quiz chp 9 Discussion	Quiz 1	1,2

2	chapter 7 Ethics in Law in Dental Hygiene pages120-136 Aspects of practice management Team concept exercises cross training	Group-Team building exercise	
3	Week 2 Quiz 2 chapter 7 Week 3 discussion chapter 7 pages 111-133 Ethics Jurisprudence and Practice Management in Dental Hygiene	Cross training exercise Quiz 2	1,2
4	Quiz 3 chapter 7 Week 4 Dental Hygienist-Employer Relation Chapter 8 pages 138-149 Ethics in Law in Dental Hygiene	Quiz 3 in class: research types of employment opportunities in dental hygiene Write a resume developing resume template	1,2,3
5	Quiz 4 chapter 8 Discussion Chapter Chp 10 pages 171-196 Ethics Jurisprudence and Practice management in Dental Hygiene	Quiz 4 in class: Start cover letter rough draft based on employment job listings. Based on cold contact	1,2,3,4
6	Discussion Chapter 10 Write a cover letter Ethics Jurisprudence and Practice Management in Dental Hygiene Developing cover letter	Resume due	1,2,3,4,5

	template		
7	Role playing- interview taped with interviewers DiscussionChapter 62-63 Dental Hygiene Theory and Practice	Cover letter due Mock interviews	1,2,3,4,5
8	Review for board exam oral pathology/ oral histology prepare for final project	Develop group capstone project	1,2,3,4,5
9	Review for board exam periodontology/case studies/dental hygiene diagnosis Discuss project outline Assign group project	Work on group capstone project	
10	Review for board exam Head and neck anatomy/ physiology Present group project	finalize group capstone project	
11	Review for board exam Dental Materials/Radiology present group case project	Presentation group capstone project	
12	Review for board exam Pharmacology/emergencies in	Presentation group capstone project	

	dentistry		
12	final	Final exam Weeks 1-4	1,2,3,4,5

Student Contributions and Method of Evaluation

In order to succeed, the student is expected to be present for class and arrive on time. Each student is expected to participate in class discussions or activities. The student will read assigned topics from handout materials and text. Laboratory assignments will be completed to meet the course requirements.

Student performance will be assessed by examinations, quizzes, written reports, journal article reviews, oral presentations, and group exercises and discussions. Being prepared prior to class time by reading your text will improve your understanding of the material. All assignments are due on the days listed in the class assignment schedule.

Cell phones, pagers, and any other noise devices are very distracting to the learning process. They must be turned off prior to the start of class and remain off until the end of class or lab this also includes no texting during class/lab time. Please be considerate and respectful to your classmates and be on time to class, if you are late for unforeseen circumstances please enter the classroom quietly when there is a pause.

If you are sick and not going to be in class you must call and let me know.

Course Points	4-quizzes	200
	Capstone Group project	100
	<u>Final exam</u>	<u>100</u>
	Total	400

Capstone group project: Cumulative learning experience that provides an opportunity to synthesize, analyze, and develop solutions to a health care issue or problem. Under guidance of a faculty mentor, the student group uses an interdisciplinary approach to develop a program for implementation in the health care environment, to complete a

major written health related project with relevance to the health care sector. Course instructor will assign groups for capstone group project.

Rubric for capstone project:

DHY 315 Capstone Group Rubric

	Great 33 pts	Good 28 pts	Fair 25 pts	Poor 23 pts
Content	Great	Good	Fair	Poor
	Well researched (3 citations) dental hygiene topic which serves as a great review for the NBDHE.	Researched (1-2 citations)dental hygiene topic which provides moderate review for the NBDHE.	No citations noted for a dental hygiene topic which provides minimal review for the NBDHE.	No citations noted and a topic that provides inaccurate information which provides no review for the NBDHE.
Originality	Great	Good	Fair	Poor
	Students create an original, accurate and interesting bullentin board that addresses a dental hygiene topic.	Students create a moderately accurate, original bulletin board that addresses dental hygiene topic.	Students create a minimally accurate, original bulletin board that addresses dental hygiene topic.	Students create bulletin board that lacks originality and does not adequately addresses a basic dental hygiene topic.
Overall Appearance	Great	Good	Fair	Poor
	Posts a highly esthetically pleasing, creative design.	Posts a moderately esthetically pleasing, creative design.	Posts a minimally esthetically pleasing, creative design.	Posts an unorganized, unattractive design lacking creativity.

Grading Scale

Letter	% Range
A	93-100

B	85-92
C	78-84
D	75-77
F	0-74

College Assessment

Indian Hills Community College conducts assessment of student learning in order to determine whether students are meeting course, divisional, and institutional goals. From time to time, some of the activities and assignments that we do in the course may be used to assess these goals. While assessment results may be shared with others at the college, your personal results will remain confidential.

Disability Policy

If you have a disability and have a request for academic accommodations (e.g., test readers, extended test times, etc.), please contact Disability Services, located in the SUCCESS Center. Services are available to students at all Indian Hills Community College locations and online. You may contact Disability Services using the information below.

Email

disabilityservices@indianhills.edu (for any campus, service center, or online)

Ottumwa

Address: SUCCESS Center, Attn. Disability Services, 525 Grandview Ave., Ottumwa, IA 52501

Phone: (800) 726-2585, ext. 5238

Emergency Medical Information

If you have emergency medical information that you need to share, please inform your instructor or Disability Services immediately. See instructor contact information at the top of this Course Syllabus.

Academic Dishonesty Policy

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers that are not the student's original work (plagiarism) also constitutes cheating. In addition, falsifying client records, faculty signatures, and clinical evaluation forms are considered maximum cheating penalties.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Curriculum Outline

Unit I Aspect's of practice management

Objectives:

Upon completion of this unit the student will be able to:

1. Discuss the need for practice management in the dental office.
2. Identify different management styles.
3. Differentiate between oral health care and the business of oral health care.
4. Discuss the team concept.
5. Identify the benefits of cross training.
6. Differentiate types of staff meetings.
7. Differentiate between employer expectations and employee expectations.
8. Identify uses of public relations and image for the dental and dental hygiene practice.

Content:

- a. Pros and cons of management consultants
- b. management styles
- c. Team concepts
- d. defining staff roles
- e. Cross training
- f. Staff meetings and their benefits
- g. Expectations and public relations
 - i. Employer expectations
 - ii. Your expectations
 - iii. Expectations of staff
 - iv. Expectations of patients
- h. Marketing and Dental Practice

- i. Marketing the patients health care
- j. Marketing the practice
- k. Marketing yourself
- l. Marketing strategies
- m. Marketing and profit centers

Unit II The business of dental hygiene

Objectives:

Upon completion of this unit the student will be able to:

1. Describe the scope of the dental hygiene diagnosis.
2. Discuss business aspects for dental hygiene.
3. Discuss time management issues and plan a treatment hour.
4. Compare alternative practice settings for dental hygienists.

Content:

- a. Maximizing skills
- b. The business of dental hygiene
- c. Dental insurance and Hygiene services
- d. Continuing care and recare systems
- e. Time management
- f. Working with other dental hygienists
- g. Alternative practice settings/independent practice
- h. Working as a public health dental hygienist
- i. Career alternatives
- j. Lifelong learning

Unit III Seeking the Dental Hygiene Position

Objectives:

Upon completion of this unit the student will be able to:

1. Recognize the scope of job searching
2. Identify different employment opportunities for dental hygienists.
3. Discuss the process of interviews between employer and employees.
4. Identify the advantages and disadvantages of working interview.
5. Identify contents and needs for office policy manuals.
6. Discuss benefits as they relate to the dental hygienist.
7. Apply negotiating skills related to employee benefits.
 - a. Working as a temporary
 - b. Employment resources
 - c. Preparing for interviews
 - d. The employers interview
 - e. Your interview
 - f. The working interview
 - g. Interviews and personality tests
 - h. Attire
 - i. Leadership versus management: qualities and opportunities
 - j. Resumes
 - k. Post interview acknowledgments
 - l. Beginning the new job

- i. compensation
- ii. Benefits
- iii. Negotiating
- iv. employment contracts
- v. policy manuals

Unit IV Practice management

Objectives:

Upon completion of this unit the student will be able to:

1. Describe techniques used for successful practice management
2. Discuss techniques used for successful clients and record management.
3. Discuss time management for scheduling, including the types of appointment book management systems.
4. Explain economic considerations for a profitable practice, including office overhead, production, and collection.
5. Discuss quality assurance and the auditing of client records.

DHY 315 Seminar for Dental Hygiene

Test: Chapter 7 Aspects of Practice Management

Name _____

J Williams Instructor DHY 315 Seminar for Dental Hygiene

(Each answer is worth 5 points)

Define these terms:

1.accounts receivable_____

2.Authoritative management_____

3. Cash flow_____

4.cross training_____

5.efficacy_____

6. Policy manuals_____

7. Production _____

8. Free- rein _____

For answers 9-15 List the seven members of the dental team.

- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

16-20 Case study: the practice in which you are currently employed has recently expanded and remodeled with state of the art equipment. This was done partially because of a chronic decrease in new patients; annual revenue was not increasing thus not enhancing the profitability of the practice. The office has decided to initiate a plan to market the practice and its new environment.

Design a marketing plan based upon the learning in this chapter. It should consist of at least five marketing ideas.

This workforce solution is funded by the IHUM Consortium which is 100% financed through a \$15,000,000 grant from the U.S. Department of Labor's Employment & Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

