

Dental Assisting Course Syllabus



2016 – 2017

Revised: 6/16

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

COURSE: DA 135 – Dental Materials

GENERAL DESCRIPTION: A study of the various impression materials, dental waxes, laboratory gypsum and resins. Emphasis will be on the manipulation of these materials in the fabrication of diagnostic and working models, custom trays and polishing prosthesis.

INSTRUCTOR: Nicole Pahl, CDA, BA Email: nicole.pahl@lakeareatech.edu Phone: 605-882-5284, ext. 362
This course (via MyPortal) is available 24 hours a day, seven days a week. I am on campus 8:00am to 4:00 pm M-F and other times by appointment. Please schedule via email or phone call. However, you can expect a reply to any e-mail within 24 hours M-F and 48 hours Saturday/Sunday.

DURATION: Clock Hours – 84 (22 didactic, 54 lab, 8 clinical) Semester Credits – 3

CLASS SESSION: **Campus Students:**.....Lecture: Friday 8:00 a.m.
Lab Section A Monday 8:00 – 11:30 a.m.
Lab Section B Tuesday 12:30 – 4:00 p.m.
Lab Section C Tuesday 8:00 – 11:30 a.m.
Lab Section D Tuesday 12:30 – 4:00 p.m.

Online Students:Lab: Thursday and Friday 1:00 a.m. – 5:00 p.m.

Dates to be present:

Thursday and Friday: September 17th and 18th
October 8th and 9th, 22nd and 23th
November 5th and 6th, 19th and 20st
December 3rd and 4th, 10th and 11th

REQUIRED TEXT: *Modern Dental Assisting and Workbook*, Bird and Robinson, 11th edition.

MAJOR REFERENCES: *Dental Materials – Clinical Applications for the DA*, Hatrich, Eakle, Bird. *Elements of Dental Materials*, Ralph W. Phillips and Moore, 5th ed.

REQUIRED TECHNOLOGY: Computer/laptop, Internet access, Internet Browser: Firefox or Chrome, Microsoft Office (Word, PowerPoint) and webcam for online chat.

REQUIRED SUPPLIES: Pencils, eraser, highlighter, shoebox sized storage bin and daily planner.

METHODS OF INSTRUCTION: Learning Activity Packets, lecture/PowerPoints demonstrations, video tapes, written and practical evaluations, laboratory assignments and quizzes.

INSTRUCTIONAL OBJECTIVE: At the completion of this course, the student will:

1. Demonstrate skills necessary to manipulate various types of impression materials, gypsum products, and resin materials.
2. Demonstrate skills necessary to fabricate diagnostic and working models, custom trays and removable prosthesis.

UNITS OF INSTRUCTION/TOPICS INCLUDED		Didactic Hours	Lab Hours	Clinic Hours
135 1	Identify dental laboratory equipment, safety precautions, and manipulate gypsum products.	8		
	a. Demonstrate proper manipulation of gypsum products by pouring primary, permanent, and edentulous molds.		3	
135 2	Fabricate custom acrylic appliances and identify dental waxes.	6		
	a. Identify dental waxes.		2	
	b. Fabricate and finish one (1) upper and one (1) lower full-spaced custom trays with Triad thermoset resin.		3	
	c. Fabricate and finish one (1) spaced custom tray with thermoset self-cure resin.		3	
	d. Fabricate clinically acceptable bleaching trays on stone models produced from alginate impressions taken on a classmate and two (2) patients.		6	
	e. Fabricate a mouth guard on stone models produced from alginates taken on one patient.		1	
	f. Fabricate, finish, and polish a removable appliance.		4	
135 3	Manipulate and pour impressions for study and working models.	4		
	a. Demonstrate the manipulation of alginate impression material		3	
	b. Take alginate impressions and wax bites on one (1) typodont and four (4) dental patients.		3	8
	c. Pour five (5) sets of alginate impressions.		5	
	d. Manipulate elastomeric materials.	2	3	
	e. Take wax and polysiloxane bite registrations.		2	
	f. pour and trim working models.		4	
135 4	Trim diagnostic models	2	12	
Total		22	54	8

ATTENDANCE: Consistent with department policy, a student may miss six hours of any one class during the semester. Upon missing the seventh hour, a drop slip will be filled out and submitted to the registrar. Within three days of being dropped, the student may appeal by filling out an appeal form with the registrar. The registrar will then set up a meeting with the student and the instructor. The appeal will be considered and a decision reached on an individual basis. Absences can seriously affect grades. **Students are responsible for all information missed while absent from class.** This includes any changes to the schedule that might occur. When a student is 10 minutes late for class, it is an automatic absence.

LABORATORY SAFETY POLICY AND RULES

A. Objectives

1. To instill in the student an awareness of the potential physical, chemical, and bio hazardous dangers connected with the use of equipment and materials in the dental laboratory.
2. To prepare the student to act quickly and intelligently in the case of an accident.

B. General Considerations

When working in the laboratory, you must make safety your first concern. It is essential to follow safety precautions and infection control procedures. Laboratory items brought into the lab from treatment room areas are contaminated and exposure control is just as important here as when you are with patient.

C. Ground Rules for Maintaining the Laboratory

A laboratory basket will be furnished to store all lab projects. All current lab projects must be stored in the basket and put in the designated area. Anything left on counters will be discarded.

It is everyone's responsibility to clean up the lab after **every** lab period. This includes student stations and service counters. It is expected that the lab will be clean and tidy after all your classes and labs so the next scheduled class has a decent environment.

Clean and tidy will be defined as all working surfaces and sinks free of debris and dried, all instruments and supplies returned to their proper places after first being thoroughly cleaned.

The honor system will be in effect in the beginning and remain in effect unless the above rules are compromised. Cleaning assignments will be made and will be considered part of your laboratory responsibility.

LABORATORY SAFETY RULES

1. No eating or drinking in the laboratory area.
2. Wear personal protective equipment including gloves and glasses as required by the instructor.
3. Instructions will be given prior to the introduction of any new piece of equipment. Do not operate any piece of equipment prior to receiving instructions.
4. Close drawers and cabinet doors when not in use.
5. Handle sharp-edged instruments carefully. Do not carry them in your pocket. Pass scissors to others with handles toward them.
6. Do not handle electrical equipment with wet hands.
7. Turn off flames and motors if you intend to walk away from them.
8. Wipe up spilled liquids on floors and counter tops immediately.
9. Wear your hair so that it is close to your head. Remove necklaces, wrist jewelry and rings, they conduct electricity, collect dirt and can be caught in rapid rolling lathe attachments.
10. Know the location of the first aid kit, fire extinguisher and fire alarm pull box. When using a fire extinguisher, aim the nozzle at the base of the flames, then pull the trigger.
11. Become thoroughly familiar with all fire signals, fire drill procedures, and fire exits. In case of fire alarm, walk quietly and quickly to the nearest exit. FOLLOW YOUR INSTRUCTOR'S DIRECTIONS.
12. In case of fire, the word "fire" repeated three times quickly, will bring immediate response from the instructor.

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13. If your neighbor's clothes are on fire, yell "fire...fire...fire," and attempt to smother the flames with a wet towel or lab coat.
14. Alcohol, monomer, and oil are considered volatile liquids. If these liquids are ignited, do not add water, but try to smother the flames.
15. Impressions and other items carrying bio hazardous materials must be properly handled. **Any accident, no matter how small, must be reported to an instructor.**

EVALUATION CRITERIA AND FINAL GRADE CALCULATION : Each unit has a written and practical exam or laboratory project. Laboratory quizzes are given at the end of each laboratory period, these cannot be made up. Total points are kept and your grade is calculated at the end of the semester by totaling your points and dividing by the number of points possible.

Grading:	Quizzes.....	100 points
	Practical Evaluations	250 points
	Exams	150 points
	Final Exam	<u>100 points</u>
		600 Total Points

Practical Evaluations The student must achieve a minimum 80% cumulative average at the end of the semester.

GRADING SCALE: 94% - 100% = A 87% - 93% = B 86% - 80% = C 79% or below = Failing

GRADING POLICIES: Tests not taken on the scheduled test day will be assessed a 10% late penalty unless other arrangements have been made *prior* to test day. If you are absent the day of a test, the late penalty will be assessed and that test must be taken within **2 days** or a score of zero will be awarded. *Note: This test may NOT be the same test given in class.*

To obtain full credit for a missed test, the following conditions must be met:

1. You contact the course instructor prior to the beginning of class.
AND
2. You have a legitimate excuse that you can document. Examples: serious illness (requires a doctor's note), funeral (accompanied by the memorial pamphlet from the funeral), automobile accident (documentation necessary), severe weather, and program-related activity (requires documentation).

Points are awarded for assignments completed. Assignments/tests are due on the date specified unless an extenuating circumstance has been approved by the instructor. Late assignments will not be accepted unless due to extenuating circumstances and will be penalized by 10%.

ADDITIONAL COURSE INFORMATION: *for online and on-campus students*

1. It is expected that students will spend 2 hours per credit hour outside of class time for each course. For example, for a 3 credit course you can expect to spend 3 hours working with the concepts presented (for on-campus students this would be the time you attend class) plus 6 additional hours per week (2 hours x 3 credits) completing assigned homework and projects as well as studying for tests.
2. Laptops are LATI property during class and will be used for academic purposes only. Social networking is distracting to those around you. Please be courteous during classroom instructional time (lecture and other class activities).

3. Cellphones and other mobile devices (iPods) are to be turned off and put away unless being used for classroom activities (as specified by your instructor). Any texting during class will not be allowed. Please inform the instructor if there is an emergency call expected. No cell phones should be on or visible during exams.
4. The instructor has the right to alter the syllabus and assignments during the course. Any changes will be announced.
5. Personal responsibility is expected of all students. You are responsible for knowing the material as well as meeting all due dates. It is suggested that each student develop a method for keeping track of due dates.
6. Professional behavior is expected in class and on-campus at all times. Professionalism in the classroom and in the workplace are vital to your success. Unprofessional behavior including, but not limited to, swearing, cheating, making rude comments or gestures, showing disrespect, and talking during instructional time will not be tolerated.
7. Excellent communication is a vital tool to success in the classroom and workplace. This communication includes in-person and email as well as any other methods utilized by your instructor. The course (via My Portal) is available 24 hours a day, seven days a week. Your instructor is available 8:00 am to 4:00 pm M-F and by appointment. However, you can expect a reply to any e-mail within 24 hours M-F and 48 hours Saturday/Sunday. *It is expected that you will check your LATI email at least 5 days a week* to ensure you are receiving up to date information. As your instructor, I am here to assist you. If I do not know you have questions or are struggling, I am not able to help. Please feel free to call, stop by my office, or send an email if you have any questions or need assistance.

Communication guidelines for email:

- When emailing, always use LATI's email system for communicating with your instructor.
- Include a subject line to let me know what the message is about.
- Please include a salutation (Hi) and a closing (thank you, sincerely,)
- Clearly describe your question or information you would like to share.
- Use complete sentences including capital letters and punctuation. Email (in an academic and workplace setting) should follow a professional format; it is not the same as texting or sending a quick reply to a close friend.

Professional Online Etiquette:

- **Be aware of how you communicate via e-mail or in the forum so your message is not misinterpreted.** Communication between humans is approximately 90 percent body language, 8 percent tone of voice, and 2 percent spoken words. With e-mail, 98 percent of the communication's context is no longer in play.
- **Avoid language that may come across as strong or offensive.** Language can be easily misinterpreted in written communication. Humor and sarcasm may easily be misinterpreted in online platforms, so try to be as matter-of-fact and professional as possible. No inappropriate, offensive, or profane language.
- **Review, review, then send.** There's no taking back a comment that has already been sent, so it is important to double-check all writing to make sure that it clearly conveys the exact intended message.
- **An online classroom is still a classroom.** Though the courses may be online, appropriate classroom behavior is still mandatory. Respect for fellow classmates and the instructors is as important as ever.

- **Proofread posts and messages.** Make sure you are communicating your points as clearly as possible in the forums and other communications. The accurate grammar and spelling of a message is vital. If your audience cannot decode misspelled words or poorly constructed sentences, you are not communicating. It is a good practice to compose, review, and check your comments in Word before posting them.
8. Without my permission, you do not have the authority to record any of my class, its class members, or any content expressed here.

ACADEMIC HONESTY STUDENTS' RESPONSIBILITIES: Students are responsible for their own behaviors and are expected to maintain stated standards of academic honesty. Students share the responsibility with the faculty for maintaining an environment that supports academic honesty and discourages plagiarism or cheating.

FACULTY AND ADMINISTRATOR RESPONSIBILITIES: Faculty are responsible for creating a classroom and testing environment that discourages cheating, confronts suspected violators and insures fair treatment of all students. Administrators also share the responsibility for developing an environment that discourages academic dishonesty.

ACADEMIC DISHONESTY: The following activities are considered to be academically dishonest:

- Failing to report observed instances of academic dishonesty.
- Plagiarism, defined as representing as one's own, the ideas, writings, or other intellectual properties of others, including other students; any material taken verbatim from the work of others must be placed in quotation marks and a reference cited. Paraphrased content must have appropriate attribution.
- Collaboration on assignments unless it is clearly permitted per the syllabus/instructor.
- Falsifying academic records.
- Bribing faculty to improve academic scores or grades.
- Acquiring an exam during the preparation, duplication, storage, or prior to testing date.
- Removing or acquiring secured exams after administration.
- Copying answers from another student's examination.
- Taking a crib sheet or other form of prepared answers/notes into an examination when not permitted by the instructor.
- Leaving the examination and returning without permission.
- Taking an examination for someone else, preparing and submitting an assignment for someone else, or sign-in for class for someone else.
- Receiving, retaining, and/or using materials obtained in a manner that is defined as academically dishonest.
- Using signals or otherwise communicating (e.g. text messaging) during an examination to share answers with or from another student.
- Continuing to answer test items beyond the prescribed exam time limit.
- Falsifying reasons for excused absences from examinations.
- Taking examinations at times other than the one to which you have been assigned in order to obtain more preparation time.

If a student is participating in academic dishonesty and is caught, he/she may be dismissed from the course.

RECORDING STATEMENT: Without permission, students do not have the authority to record **any** of the dental assisting classes, its class members, or any expressed content.

INSTRUCTOR RIGHTS STATEMENT: The instructor has the right to change any and all material on this syllabus at any time.

ADA STATEMENT: Watertown School District 14-4 provides equal opportunity in its employment regulations, educational, and activity programs. It is the policy of the District not to discriminate on the basis of sex, race, color, national origin, creed, religion, marital or veteran status, status in regard to public assistance, age, or disability.

Students are entitled to 'reasonable accommodations' under provisions of the Americans with Disabilities Act. Those in need of such accommodations should notify the instructor and make appropriate arrangements with the Office of Disability Services, Educational Services/Library.

Inquiries regarding implementation and compliance of the Americans with Disabilities Act may contact Sandie Jungers, Special Needs Coordinator, Watertown School District 14-4, P.O. Box 730, Watertown, SD 57201-0730, 605-882-6312. Persons with inquiries regarding implementation and compliance regarding Title IX or Section 504 may contact the Watertown School District Superintendent's Office, P.O. Box 730, Watertown, SD 57201-0730, 605-882-6312.

Additional inquiries may be directed to the Regional Director, U.S. Department of Education, Office for Civil Rights, 10220 North Executive Hills Boulevard, 8th Floor, Kansas City, MO 64153-1367, 816-880-4200.

STUDENT SERVICES:

- ***Career Counseling***

Guidance is available for students when investigating career choices or in reaffirming the choice already made.

- ***Personal Counseling***

Knowing that student life can be stressful, Lake Area Tech provides personal on-campus counseling for either school-related or non-school-related issues. At times, referral to another counseling service may be warranted. Check with the on-campus counseling staff if you have concerns you need to discuss. Specific referrals for drug and alcohol-related issues will be made by on-campus counselors.

- ***Student Tutoring***

The Educational Services Center staff and peer tutors provide tutoring for all courses. If you are a student in need of help in any of your classes, please contact the Educational Services Coordinator located in the LATI library.

- ***Online Learner Information***

Additional information and support for online learners at LATI is available at:
<http://www.lakeareatech.edu/onlinelearner/index.html>

**DA 135 – Dental Materials
Calendar of Instruction (Weekly Schedule)**

DATE	TOPIC	ASSIGNMENT
Week 1	<p>Identify The Dental Laboratory Equipment and Safety Procedure</p> <p>Lesson/Lab: Introduction to the course and tour of lab.</p>	<p>Prepare for this unit by reviewing the course outline and learning objectives in packet 135 1.</p> <p>Complete lab safety test.</p>
Week 2	<p>Manipulate Gypsum Products</p> <p>Lesson/Lab: Pour rubber molds with gypsum products.</p>	<p>Read about gypsum, in your textbook, pages 801 – 809.</p> <p>Read Information Sheets.</p> <p>Complete Assignment Sheet 1 and hand in models with Evaluation Sheet.</p>
Week 3	<p>Test 1: Gypsum Products</p> <p>Dental Waxes</p> <p>Lesson/Lab: Identify waxes and make wax spacers.</p>	<p>Prepare for this unit by reviewing the course outline and learning objectives in packet 135 2.</p> <p>Read about waxes in your textbook, pages 809 – 815</p> <p>Lab Quiz</p>
Week 4	<p>Fabricate Custom Acrylic Appliances</p> <p>Lesson/lab: Construct and polish thermoset resin appliances.</p>	<p>Read about resins in your textbook, pages 813 – 822.</p> <p>Read Assignment and Procedure Sheets.</p> <p>Hand in trays with Evaluation Sheet.</p> <p>Lab Quiz</p>
Week 5	<p>Fabricate Custom Acrylic Appliances</p> <p>Lesson/lab: Constructing thermoplastic appliances: whitening trays and mouth guards.</p>	<p>Read about resins in your textbook, pages 813 – 822</p> <p>Read Assignment and Procedure Sheets.</p> <p>Hand in trays with Evaluation Sheet.</p> <p>Lab Quiz</p>

DA 135 – Dental Materials
Calendar of Instruction (Weekly Schedule Continued)

DATE	TOPIC	ASSIGNMENT
Week 6	Test: Resins Mix Alginate Impression Material Lesson/Lab: Intro to impression materials <ul style="list-style-type: none"> • Mix alginate • Load impression trays • Impression a typodont 	Read about resins in Modern Dental Assisting – 10th ed. Pages 780 – 800 Mixing, load and take impression on typodonts self-evaluate using the Evaluation Sheet and wrap for pouring next week. Complete Assignment Sheet Lab Quiz
Week 7	Take and Pour Alginate Impressions Lesson/Lab: <ul style="list-style-type: none"> • Pouring an impression inverted pour technique • Impression a classmate for whitening trays 	Pour impressions from last week. Take upper and lower impressions on a classmate and pour according to instructions for a bleaching tray. Self-evaluate using the Evaluation Sheet.
Week 8	Take and Pour Alginate Impressions and Wax Bites on Classmates Lesson/Lab: Impression a classmate for study models and taking wax bites.	Take upper and lower impressions on a different classmate. Pour all impressions for study models. Take a wax bite registration on classmate. Self-evaluate using the Evaluation Sheet.
Week 9	Take and Pour Alginate impressions and wax bites on patients Lesson/Lab: Impression Patients and pour impressions	Take upper and lower impressions and wax bite registration on two (2) outside patients. Pour one set for study models and one for whitening trays. (Continue next week)
Week 10	Take and Pour Alginate Impressions and wax Bites on Patients Lesson/Lab: Impression patients and pour impressions, make whitening trays.	Take upper and lower impressions and wax bite registration on two (2) outside patients. Pour one set for study models and one for whitening trays.
Week 11	Test: Alginate Impressions Alginates Patients Lesson/Lab: Impression, pour and make whitening trays.	Hand in all models and trays for grading.

DA 135 – Dental Materials
Calendar of Instruction (Weekly Schedule Continued)

DATE	TOPIC	ASSIGNMENT
Week 12	<p>Elastomeric Impression Materials</p> <p>Lesson/Lab: Prepare elastic impression materials and taking bite registrations.</p>	<p>Read about elastomeric materials in Chapter 46 and on the Job Sheet.</p> <p>Complete Assignment Sheet.</p>
Week 13	<p>Elastomeric Impression Materials</p> <p>Lesson/Lab: Box and pour elastomeric impressions.</p>	
Week 14	<p>Test: Elastomeric Impression Materials</p> <p>Trim Study Models</p> <p>Lesson/Lab: Trim study models to specifications</p>	<p>Prepare for this unit by reviewing the course outline and learning objectives in packet 135 4</p> <p>Read about trimming models in Chapter 47 and on the Job Sheet.</p> <p>Complete Assignment Sheet.</p>
Week 15	<p>Trimming Study Models</p>	<p>Continue trimming study models</p>
Week 16	<p>Review and Hand-in Study Models</p>	<p>Prepare for by completing the Chapter 46 and 47 in your Workbook.</p>
Week 17	<p>Final Test and Lab Cleanup</p>	

This schedule is subject to change at the discretion of the instructor or director of the Dental Assisting program.



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