



SYLLABUS
AFAB 1103, Fall 2016
Blueprints, Measurement & Quality

COURSE DESCRIPTION

Blueprints, Measurement & Quality provides lecture and hands-on practice in reading and interpreting blueprints and modern product data management systems. Students will learn to understand and navigate through mechanical drawings with special emphasis on the unique characteristics of aerospace drawings. The ability to create basic mechanical sketches will allow the student to communicate effectively on the job. The student will learn to interpret basic lines, symbols, tolerances and recognize types of drawings, use engineering parts lists and aircraft coordinate reference systems. Size, shape and tolerance concepts will be reinforced through the critical examination of parts using precision measurement tools.

COURSE INFORMATION

Class Time	T: 6-9pm
Class Location	Aero Lab, TS-100
Credits	3 SCH
Requisites	There are no Prerequisites for this course.

INSTRUCTOR

Instructor	Mr. Greg Ferringer
Phone	501-622-4262
E-mail	gferringer@np.edu
Office	NPC
Office Hours	MW: 2:00 pm - 4:00 pm, T: 11:00 am-1:00 pm Other times by appointment only

TEXT & MATERIALS

- Basic Blueprint Reading and Sketching, 9th ed., Thomas P. Olivo and Dr. C. Thomas Olivo., ISBN 1-4354-8378-2, Publisher:, Edition 9
- Pencil/pen, a straight edge, loose-leaf paper, and the textbook must be brought to every class period.
- Personal protective equipment (PPE) – safety glasses, steel toed shoes. Clothing should be worn that is appropriate for the production setting. No open toed shoes are allowed in the laboratory.

ASSURANCE OF LEARNING

Instructional methods

This course will incorporate a variety of teaching and learning methods - lectures, readings, lab exercises, lab work, video clips, group/field projects, peer teaching, etc

General Educational Outcomes

Upon successful completion of any degree at National Park Community College, the student will

- Communicate effectively by demonstrating proficiency in the English language, utilizing appropriate communication technology, and presenting ideas and information orally and in writing.
- Reason scientifically and quantitatively by demonstrating knowledge of mathematical and scientific principles, applying these principles to solve problems, interpreting information presented in graphic form, and by applying scientific methods to the inquiry process.
- Think critically as demonstrated by the ability to read, understand, analyze complex ideas, locate, evaluate, and apply research information, draw inferences from facts and evaluate and present well-reasoned arguments.
- Develop a global perspective which empowers the student to recognize commonalities and differences among cultures, examine the significance of diversity in social interaction, interpret events and values within a given context.

Course Specific Outcomes

Upon completion of the course, the student will:

- Interpret basic geometric definitions, lines and symbols used on blueprints.
- Sketch multi-view and isometric representations of physical objects.
- Describe the blueprint numbering system.
- Recognize the different types of drawings.
- Recognize and interpret the various parts of a drawing.
- Apply drawing parts list.
- Comprehend and locate parts using X, Y, Z aircraft coordinate reference system.
- Recognize and use various precision measurement tools to inspect parts.
- Interpret tolerances and determine if parts are in compliance with drawing.

Progress on achieving these objectives will be measured through the completion of assignments inside and outside the classroom, participation in discussions and lab work, periodic quizzes and examinations.

COURSE REQUIREMENTS

Assignments

Problems and textbook problems will be assigned to provide additional practice on the concepts. These assignments may be collected and graded to provide feedback.

Quizzes

Announced or unannounced quizzes may be given. Makeup quizzes are at the discretion of the Instructor.

Examinations

There will be 3 to 5 examinations worth 100 points each. Students will be required to take the exams in class or in a proctored environment. Alternative testing sites are acceptable but **MUST BE APPROVED BY THE INSTRUCTOR PRIOR TO THE EXAM**. Exams will consist of problems, fill-in-the-blank, and short essay.

Final Exam

There will be a final comprehensive assessment of the course material worth approximately 200 points.

Lab requirements (if appropriate)

What has to be accomplished in lab? What sort of testing, participation, skills.

Evaluation

Your grade will be determined by your relative performance on the following:

Exams	55%
Homework/Quizzes.....	20%
Comprehensive Final.....	15%
Attendance.....	10%
Total	100%

Grading Scale:

A	90% - 100%
B	80% - 89%
C	70% - 79%
D.....	60% - 69%
F.....	59% or Below

Topical Outline and schedule

Week	Topic	Reading	Homework
1	Orientation/ Introduction Unit 1,2, 3	Unit 1,2,3,4,5	Unit 1 BP-1, BP-3
2	Unit 4,5 Activity: intro precision measurement	Unit 6,7	
3	Unit 6,7 Activity: precision measurement	Unit 8,9	
4	Unit 8,9 Activity: precision measurement		
5	Unit 10,11 Activity: title blocks, dwg zones, notes		
6	Unit 12,13 Drawing navigation, notes		
7	Midterm Exam Unit 14,15		
8	Unit 16,17 Drawing navigation, notes		
9	Unit 18,26,27 Aircraft Coordinates		
10	Unit 29		

	Detail, subassembly, assembly		
11	Unit 32,33 Detail, subassembly, assembly		
12	Unit 34,35 Quality CATIA		
13	Unit 34,35 Quality CATIA		
14	Unit 40,41,42 Quality CATIA		
15	Final Exam		

Daily Class Outline

Turn in homework
 Quiz/bellwork
 Review
 Lecture New BP material
 Break
 Secondary Activity
 Break
 Homework time

COURSE POLICIES

Student Responsibility

Students are responsible for reading the textbook material and completing homework assignments on time, documenting their lab projects, writing assigned technical research reports, and keeping a notebook to document their learning progress. Points will be deducted for work that is turned in late! A dedicated 3-ring binder is recommended for the Basic Electricity notebook.

Attendance policy

The College assumes that regular class attendance is essential to its academic operations. Students not attending regularly scheduled classes are considered absent. Faculty members have the responsibility to deal with absences, to decide makeup work required, if any, and to drop students for absences that exceed the instructor's policy. Students are personally responsible for the academic consequences of a poor attendance record.

Students may be administratively dropped if they fail to do ALL of the following:

- 1) Attend at least 85% of class meetings to date
- 2) Satisfactorily complete at least 85% of all assignments, quizzes, exams, online discussions, etc.
- 3) Make satisfactory academic progress

Cell Phone Policy/Classroom Etiquette

- The use of pagers and cellular phones is prohibited during class time and site visits. The instructor must approve exceptions to this policy in advance. Follow **all** campus rules, policies, and expectations outlined in the *OTC Student Handbook/Calendar*.
- Students are expected to behave as adults, be attentive & participate in a *positive manner* in this class. Unacceptable behaviors which will warrant dismissal from class include, but are not limited to:
 - *Sleeping, talking or passing notes to neighbors, "Texting," working on other assignments during lecture, gum popping/smacking, or any other disruptive or distracting behaviors.*
- Certain foods and drink are permitted during lecture as long as they are not disruptive to the class.
- As outlined by COTO policy, children are not allowed in classrooms or labs. Do not ask for exceptions to this rule.
- Please make it a habit to turn cell phones to silent before class begins each day
- Demonstrate respect and regard for the ideas of others.
- No horseplay

Laboratory Policy

At all times, students are expected to comply with all Shop Rules. Clothing should be worn that is appropriate for the electrical trades. No short pants or open toed shoes are allowed in the laboratory.

Make-up Policy

Make-ups on regular exams will be given at the instructor's discretion. It is the student's responsibility to work this out with the instructor. If an exam date is missed, the student must provide a written request for makeup work. Any supporting documentation may be attached. Any missed projects; quizzes, discussion board postings, papers, and any other class assignments may be made-up only at the discretion of the instructor.

Academic Integrity

Students are responsible for familiarizing themselves with the College policies on academic integrity. Any instance of academic dishonesty, especially cheating or plagiarism, will be dealt with harshly and may result in failure on the exam or assignment, failure in the course, or dismissal from the College.

ADA statement

Students with Disabilities: It is the policy of National Park Community College to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content, or the use of non-captioned videos—please notify the instructor as soon as possible, preferably during the first or second week of class. Then, it is the student's responsibility to contact the campus Disability Specialist, Audrey Annette Smelser, to verify disability and to request one or more accommodations. Students should contact the Disability Specialist by telephone at 501-760-4227 (v/tty) or via email at asmelser@npcc.edu. For more information, visit the Disability Services website at http://www.npcc.edu/Students/StudentServices/student_services_description.htm#Disability

Legal Disclaimer

The schedule, policies, and assignments in this course are subject to change in the event of extenuating circumstances or by mutual agreement between the instructor and the students. The instructor will always inform the students of any changes in a timely manner.