

Arkansas State University-Newport's mission is to provide an accessible, affordable, quality education that transforms the lives of our students, enriches our communities, and strengthens the regional economy.

## **ADVM1134: Job Planning, Benchwork, and Layout**

**Catalog Description** This course is designed to introduce the student to the basics that are needed to develop the skills to operate CNC controlled equipment. Students will explore: Intermediate shop math and precision measurement, Reading Manufacturing Blueprints speeds and feeds, basic machining theory, published resources, benchwork, layout, and introduction to G&M code.

**Course Type:** Lecture/Lab

**Instructor Name:**

**Office:**

**Office Phone:**

**Email:**

**Office Hours:**

### **Department Information**

Course Department:

Academic Department:

Academic Coordinator:

Email:

Associate Dean:

Associate Dean Contact Number:

Email:

### **Materials: Required and Optional**

Required Text:

Optional Texts:

Required Material:

Optional Materials:

### **Institutional Learning Outcomes**

Upon graduating from ASU-Newport with any Associate Degree, a student will be proficient in the following:

#### **ILO1: Communication**

Goal: Students will express ideas, knowledge, and concepts in a clear and concise manner.

- a) Written
- b) Verbal
- c) Interpersonal

#### **ILO2: Reasoning**

Goal: Students will apply reasoning skills in a variety of environments, which demonstrate problem-solving and applied knowledge.

- a) Explore
- b) Locate
- c) Interpret
- d) Evaluate
- e) Apply

### **ILO3: Responsibility**

Goal: Students will participate in service activities that instill in them a sense of social responsibility.

- a) Civic
- b) Academic
- c) Financial

### **Institutional Grading Scale**

Grading Scale:

A: 90-100

- B: 80-89
- C: 70-79
- D: 60-69
- F: 0-59
- S: Satisfactory
- U: Unsatisfactory

### **Americans with Disabilities Act Compliance**

In order to obtain appropriate disability related accommodations and services to which they are entitled, students with documented disabilities should voluntarily and confidentially provide the Office of Disability Services (870-512-7838 or [disabilityservices@asun.edu](mailto:disabilityservices@asun.edu)) with appropriate medical documentation regarding the nature and extent of their disability, make their needs known to this Office and follow established procedures for acquiring needed services and accommodations in the classroom or online.

### **Information Technology Services**

If you experience any problems or issues with Canvas, MyCampus, or other equipment, please contact ITS at 870-512-7783 or <http://its.asun.edu>. [Canvas also has a 24/7 live chat. This is a valuable resource for those late-night tests or assignments that just do not seem to work properly.](#)

ASU-Newport provides a number of different services to assist students in areas that directly impact their academic success. The following direct websites will help you get in touch with those services that may be needed during your time as an ASUN student:

Academic Support Center: <http://academicsupport.asun.edu>

Financial Aid: <http://financialaid.asun.edu>

Career Pathways: <http://pathways.asun.edu>

University Police: <http://cpd.asun.edu>

Information Technology Services: 512-7783 or [its@asun.edu](mailto:its@asun.edu)

Disability Services: [http://www.asun.edu/disability\\_services](http://www.asun.edu/disability_services)

Admissions: <http://admissions.asun.edu>

### **Academic Dishonesty** (as stated in the Student Handbook)

ASU-Newport enthusiastically promotes academic integrity and professional ethics among all members of the ASU-Newport academic community. Violations of this policy are considered serious misconduct and may result in disciplinary action and severe penalties. Cheating in any form-including plagiarism, turning in assignments prepared by others, unauthorized possession of exams - may result in the student being dropped from the class with an “F” and/or being suspended from the College. Students who feel they have been unfairly accused of cheating may appeal to the Associate Dean of General Education.

### **Campus Safety Information**

What to know and do to be prepared for emergencies at ASUN:

- Opt-in to receive ASUN’s School Messenger notifications regarding weather closings, emergencies, and other important notifications. All currently enrolled students will receive an email within the first two weeks of the semester prompting them to Opt-in to the messaging system.
- Know the safe evacuation route from each of your classrooms. Emergency evacuation routes are posted in on-campus classrooms.
- Listen for and follow instructions from your instructor or other designated authorities.
- For additional emergency information see the ASUN Emergency Response Guide in the Portal under “More” then select “Department of Safety”.
- Know the emergency phone number for ASUN Campus Police or dial 911.

- Report suspicious activities and objects found on campus.
- Keep your permanent address and emergency contact information current in My Campus.

**Inclement Weather**

In the event of inclement weather, class cancelation is left to the discretion of the Chancellor. You will be notified of class cancelation on the university website, through news media, and through our school messaging system.

**Children in the Classroom:**

ASUN classroom policy requires that the learning environment should be free of distraction in order to provide the highest learning opportunity for all students. In this light, students should not bring children to the classroom. If you must bring a child on campus, please have your child properly supervised in the public gathering areas.

**Course Learning Outcomes:**

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

Course Learning Outcomes	Assessment
<b>Demonstrate the ability to perform precision measurements</b>	<ol style="list-style-type: none"> <li>1. Students will identify all types of measuring equipment</li> <li>2. Students will practice the use of precision measurement equipment</li> <li>3. Students will implement inspection plans.</li> </ol>
<b>Demonstrate the ability to perform intermediate shop math and use resources</b>	<ol style="list-style-type: none"> <li>1. Students will identify formulas tables and charts needed to make calculations.</li> <li>2. Students will be able to calculate intermediate math problems quickly</li> <li>3. Students will master the use of reference materials</li> <li>4. Students will identify resources needed for machining</li> </ol>
<b>Demonstrate the ability to read and understand blueprints.</b>	<ol style="list-style-type: none"> <li>1. Students will identify blueprint basics</li> <li>2. Students will examination Blueprint Standards and Layout</li> <li>3. Students will identify Drawing Views and types</li> <li>4. Students will classify Line Styles</li> <li>5. Students will Develop Dimensioning and Tolerances skills</li> </ol>
<b>Speeds and Feeds</b>	<ol style="list-style-type: none"> <li>1. Students will identify data related to spindle and work piece speeds and size.</li> <li>2. Students will be able to calculate cutting speeds, feed speeds, and spindle speeds.</li> <li>3. Students will be able to reference tool manufacturer cutting data.</li> <li>4. Students will be able to identify tool types and diameters.</li> </ol>
<b>Basic Machining theory</b>	<ol style="list-style-type: none"> <li>1. Students will understand the basic principles of machining.</li> <li>2. Students will be able to identify the different methods of machining materials</li> <li>3. Students will be able to select the best choice of machines and processes for the task at hand.</li> </ol>
<b>Layout</b>	<ol style="list-style-type: none"> <li>1. Students will be able to layout parts with low/high /precession.</li> <li>2. Students will learn to use layout tools and methods</li> </ol>
<b>Benchwork and Hand tools</b>	<ol style="list-style-type: none"> <li>1. Students will learn the correct mounting, mechanics, and use of a Bench Vise.</li> <li>2. Students will learn the correct selection and use of all types of pliers, clamps, wrenches, screwdrivers, hammers, files, and hacksaws</li> </ol>

**Course Policies and Procedures**

**Academic Calendar**

**Disclaimer**

This syllabus and all documents associated with the syllabus are considered a contract between the student and the instructor. Students are expected to carefully read and review the syllabus and all associated documents in order to be familiar with course expectations and policies. This syllabus is subject to change at the discretion of the instructor, who will inform students of any changes. Students are responsible for keeping up with any changes.