



**I. COURSE DESCRIPTION: An understanding of the “units of measure” used in the mechanical fields is a necessity. The fundamental units of spatial measure (linear, area, volume), mechanisms, force, fluids, heat, static and kinetic energy, will be discussed and worked with. Problems will be used extensively to improve the students skill in using technical units.**

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Spatial Units.  
Potential Elements of the Performance:  
Correctly solve linear, area and volume problems using S.I. and Imperial units
2. Mechanisms  
Potential Elements of the Performance:  
Calculate mechanical advantage using S.I. and imperial units
3. Force  
Potential Elements of the Performance:  
Correctly solve problems using units of weight and mass
4. Fluids  
Potential Elements of the Performance  
Calculate pressure and flow :using units for liquids and gases
5. Heat  
Potential Elements of the Performance:  
Solve Problems dealing with heat energy units
6. Power  
Potential Elements of the Performance:  
Calculate horsepower required and consumed using S.I. and imperial units

**III. TOPICS:**

1. SPATIAL UNITS
2. MECHANISMS
3. FORCE UNITS
4. FLUIDS UNITS
5. HEAT UNITS
6. POWER UNITS

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS: HANDOUTS WILL BE USED**

## V. EVALUATION PROCESS/GRADING SYSTEM:

**THREE TERM TESTS** 70%  
**ONE FINAL TEST** 30%  
=100%

The following semester grades will be assigned to students in postsecondary courses:

<b>Grade</b>	<b>Definition</b>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

## VI. SPECIAL NOTES:

### Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

*<include any other special notes appropriate to your course>*

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VIII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.