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**Ohio Articulation Number (OAN)
Course Submission Form
2005-2006**



College/University The University of Akron

Course(s) Submitted(Title & Course #) 2990:125 Statics for
Ohio Articulation Number OET007

Date 12-11-06

Name and title of individual submitting on behalf of the college/university

Name Dr. James D. Frampton Title Chair, Engineering & Science Technology

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Department of Engineering & Science Technology
Akron, OH 44325-6104

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Fax _____

Credit Hours 3 qtr _____ sem X

Lecture Hours 3

Laboratory Hours 0 (if applicable)

Pre-Requisites(s) Course work (if applicable)

2820:161 (Technical Physics: Mechanics I), 2030:153 (Technical Mathematics III)

Placement Score (if applicable)

(Name of test) _____

(Domain) (Score) _____

Catalog/Course Description (Includes Course Title and Course #)

Forces, resultants, and couples. Equilibrium of force systems. Trusses, frames, first and second moment of areas, friction.

Texts/Outside Readings/Ancillary Materials

Applied Statics and Strength of Materials, 4th Ed.; Leonard Spiegel and George F. Limbrunner; Pearson - 2004

Course Objectives and/or Plan of Work

1. An understanding of the principles employed in the solution of problems. To acquaint the student with a logical, orderly, step-by-step procedure in the analysis of problems.
2. To solve resultants of each type of force system.
3. To become proficient in the drawing of free body diagrams.
4. The use of the equations of equilibrium in the solution of reactions on rigid bodies.
5. Solving for centroids and moment of inertia of areas.
6. An understanding of static friction and the solution of friction problems.

Description of Assessment and/or Evaluation of Student Learning

Grading Policy:	<u>Course grades will be calculated as follows:</u>	<u>Grade Scale</u>
	• Exam 1 20%	94-100 A
	• Exam 2 20%	90-93.9 A-
	• Exam 3 20%	88-89.9 B+
	• Final Exam 20%	84-87.9 B
	• Assignments <u>20%</u>	80-83.9 B-
	100%	78-79.9 C+
		70-77.9 C
		68-69.9 C-
		64-67.9 D
		63.9 ↓ F

Master Syllabi and Working Syllabi (if both are used)

**Ohio Articulation Course Submission Form Information Sheet for
Engineering & Science Technology**

Institution Course Number: 2990:125	
Course Title: Statics	
Credit Hours: 3	Semester or Quarter? Semesters
Lecture Hours: 3	Laboratory Hours:
Prerequisites:	

2030:153 Elements of Mathematics III
2820:161 Technical Physics: Mechanics I

Catalog Course Description:

Forces, resultants, and couples. Equilibrium of force systems. Trusses, frames, first and second moment of areas, friction.

Text:

Applied Statics and Strength of Materials, 4th Ed.; Leonard Spiegel and George F. Limbrunner; Pearson - 2004

Course Objectives:

1. An understanding of the principles employed in the solution of problems. To acquaint the student with a logical, orderly, step-by-step procedure in the analysis of problems.
2. To solve resultants of each type of force system.
3. To become proficient in the drawing of free body diagrams.
4. The use of the equations of equilibrium in the solution of reactions on rigid bodies.
5. Solving for centroids and moment of inertia of areas.
6. An understanding of static friction and the solution of friction problems.

Syllabus:

COURSE AGENDA

Assignment	Class Work	Reading
Week 1	Introduction to Statics, Chapter 1 Principles of Statics, Chapter 2	Chapter 1 & 2
Week 2 & 3	Resultants of Coplanar Force Systems, Chapter 3	Chapter 3
Week 4	Review and Exam 1	
Week 5 & 6	Equilibrium of Coplanar Force Systems, Chapter 4	Chapter 4
Week 7, 8 & 9	Analysis of Structures, Chapter 5	Chapter 5
Week 10	Review and Exam 2	
Week 11	Friction, Chapter 6	Chapter 6

Week 12	Centroids and Center of Gravity, Chapter 7	Chapter 7
Week 13 & 14	Areas and Moments of Inertia, Chapter 8	Chapter 8
Week 15	Review and Exam 3	
Week 16	Final Exam Week	
Description of assessment or evaluation:		
Grading Policy:	<u>Course grades will be calculated as follows:</u>	<u>Grade</u>
<u>Scale</u>		
	• Exam 1 20%	94-100 A
	• Exam 2 20%	90-93.9 A-
	• Exam 3 20%	88-89.9 B+
	• Final Exam 20%	84-87.9 B
	• Assignments <u>20%</u>	80-83.9 B-
	100%	78-79.9 C+
		70-77.9 C
		68-69.9 C-
		64-67.9 D
		63.10 ↓ F
Additional information:		
<u>NOTE:</u> This course meets the Ohio Transfer Agreement Guidelines for Statics – OET 007 as outlined in the following Engineering Technology TAGs Learning Outcomes:		
<ol style="list-style-type: none"> 1. Break force vectors into component and combine forces into a resultant. 2. Compute moment and couples. 3. Evaluate systems in force and moment static equilibrium. 4. Determine forces on members in a truss, frame, and pulley. 5. Apply friction laws to direction, wedges, belt, disk, incline. 6. Determine the centroid of areas. 7. Determine moments of inertia. 8. Optional outcome: Analyze forces, unit vectors, components in 3-D. 		

Additional Documentation

OH - BOWLING GREEN STATE UNIVERSITY OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
DESN243		2990:125	Fall Semester 1982 - 9999
OH - CLARK STATE COMMUNITY COLLEGE (1974A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
MET211		2990:125	Fall Semester 1989 - 9999
OH - COLUMBUS	T	UNIVERSITY OF AKRON	EFFECTIVE DATES

STATE COMMUNITY COLLEGE (1973A) OH	O		
CIVL232		2990:125	Spring Semester 1993 - 9999
OH - CUYAHOGA COMMUNITY COLLEGE	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
MET 1600 and MET 1620		2990:125	Fall Semester 1998 - 9999
OH - EDISON STATE COMMUNITY COLLEGE (1981A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
EGR113S		2990:125	Fall Semester 1993 - 9999
OH - KENT STATE UNIVERSITY	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
MERT 22002		2990:125	Fall Semester 1979 - 9999
OH - LAKELAND COMMUNITY COLLEGE	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
ES 210 Limited to C&T		2990:125	Fall Semester 1978 - Summer Semester 2000
MET 211 Limited to C&T		2990:125	Fall Semester 1978 - Summer Semester 2000
OH - LORAIN COUNTY COMM COLLEGE - QTRS (1971A)	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
EMEC 251 Limited to C&T		2990:125	Fall Semester 1978 - Fall Semester 1998
EM 251 Limited to C&T		2990:125	Fall Semester 1978 - Fall Semester 1998
OH - LORAIN COUNTY COMM COLLEGE-SEMS	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
EMCH 231 Limited to C&T		2990:125	Fall Semester 1998 - 9999
OH - NORTH CENTRAL STATE COLLEGE (1976A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
MEC 233		2990:125	Fall Semester 1972 - 9999
OH - OHIO STATE UNIVERSITY (1913A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
DTCH 200		2990:125	Fall Semester 1989 - 9999

OH - OWENS COMMUNITY COLLEGE (1976A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
CIV185		2990:125 Alternate: 2990:241	Summer Semester 1979 - 9999
MET135		2990:125	Summer Semester 1979 - 9999
OH - SINCLAIR COMMUNITY COLLEGE (1970A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
MET203		2990:125	Fall Semester 1968 - 9999
OH - TERRA COMMUNITY COLLEGE (1975A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
MET211		2990:125	Fall Semester 1975 - 9999
OH - UNIVERSITY OF CINCINNATI (1913A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
32 MET 140 - Statics		2990:125	Fall Semester 1980 - 9999
OH - WASHINGTON STATE COMMUNITY COLLEGE (1979A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
ENGR 221		2990:125	Fall Semester 1980 - 9999
OH - YOUNGSTOWN STATE UNIVERSITY (1945A) OH	T O	UNIVERSITY OF AKRON	EFFECTIVE DATES
CCET 2610		2990:125	Fall Semester 2000 - 9999

OBR Use

Action

Approved	
Additional Information Requested	
Rejected	
Date	