North Central State College

| MASTER SYLLABUS | 2025-2026 |
|---|---|

A. Academic Division: Engineering Technology, Business & Criminal Justice Division

B. Discipline: Mechanical Engineering

C. Course Number and Title: MECT2330 Statics

D. Assistant Dean: Brooke Miller, M.B.A.

E. Credit Hours: 3
Lecture: 2 hours
Laboratory: 2 hours

F. Prerequisites: PHYS1110c

G. Last Course/Curriculum Revision Date: Fall 2025 Origin date: 07/28/2011

H. Textbook(s) Title:

*Applied Statics & Strength of Materials*
- Author: Limbrunner
- Copyright Year: 2022
- Edition: 7th
- ISBN: 9780135716762

I. Workbook(s) and/or Lab Manual: None; Class Handouts will be distributed

J. Course Description: A problem course dealing with bodies at rest; it lays the necessary groundwork for further study in the design and analysis of structures and machines. Emphasis is placed upon the importance of the ability to draw free-body diagrams used in solving problems. (TAG # OET007)

K. College-Wide Learning Outcomes:

| College-Wide Learning Outcome | Assessments - - How it is met & When it is met |
|---|---|
| Communication – Written | |
| Communication – Speech | |
| Intercultural Knowledge and Competence | |
| Critical Thinking | |
| Information Literacy | |
| Quantitative Literacy | |

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

North Central State College
**SYLLABUS ADDENDUM**

| | | | |
|---|---|---|---|
| **Academic Division:** | BIT | **Discipline:** | Engineering Technology |
| **Course Coordinator:** | | | |
| **Course Number:** | MECT 2330-900 | **Course Title:** | Statics |
| **Semester / Session:** | Fall 2025 | **Start / End Date:** | 08/11/2025 – 12/12/2025 |

**Instructor Information**

| | | | |
|---|---|---|---|
| **Name:** | Kylie Bittner | **Phone Number:** | 419-566-9398 |
| | | **E-Mail Address:** | lbittner@ncstatecollege.edu |
| **Office Location:** | n/a | **Office Hours:** | By apt. |

**I. Topical Timeline (Subject to Change):**

| Class | Week of: | Topic | Chapter/section | Homework |
|---|---|---|---|---|
| 1 | 08/12/2025 | Chapter 1: Introduction | 1.1 – 1.6 | Run, Hide, Fight Quiz |
| 2 | 08/19/2025 | *Quiz #1* | *1.1 – 1.6* | Chapter 1 Homework |
| 3 | 08/26/2025 | Chapter 2: Principles of Statics | 2.1 – 2.8 | Chapter 2 Homework |
| 4 | 09/02/2025 | Quiz #2 | *2.1 – 2.8* | |
| 5 | 09/09/2025 | Chapter 3: Resultants of Coplanar Force Systems | *3.1 – 3.7* | Chapter 3 Homework |
| 6 | 09/16/2025 | *Quiz #3* | *3.1 – 3.7* | |
| 7 | 09/23/2025 | Chapter 4: Equilibrium of Coplanar Force Systems | *4.1 – 4.6* | Chapter 4 Homework |
| 8 | 09/30/2025 | *Midterm* | *1.1 – 4.6* | Midterm Exam |
| 9 | 10/07/2025 | *Fall Break – No Class* | | |
| 10 | 10/14/2025 | Chapter 5: Analysis of Structures | *5.1 – 5.6* | Chapter 5 Homework |
| 11 | 10/21/2025 | *Quiz #4* | *5.1 – 5.6* | |
| 12 | 10/28/2025 | Chapter 6: Friction | *6.1 – 6.7* | Chapter 6 Homework |
| 13 | 11/04/2025 | *Quiz #5* | *6.1 – 6.7* | |
| 14 | 11/11/2025 | Chapter 7: Centroids and Centers of Gravity | 7.1 – 7.4 | Chapter 7 Homework |
| 15 | 11/18/2025 | *Quiz #6* | *7.1 – 7.4* | |
| 16 | 11/25/2025 | Chapter 8: Area Moments of Inertia | 8.1 – 8.6 | Chapter 8 Homework |
| 17 | 12/02/2025 | Final Exam Review | | |
| 18 | 12/09/2025 | **Final Exam** | **All Sections** | Final Exam |

**II. Course Assignments:**

1. Exams 60%
2. Quizzes 15%
3. Homework 25%

**III. Grading and Testing Guidelines:**

a. **See Canvas**

## IV. Examination Policy:

1. The reasons for which a student will be excused from taking an examination
a. Hospitalization (with documented verification)
b. Death in the immediate family (with documented verification)
c. Personal illness or illness in immediate family - (doctor's excuse required).
2. A student who misses an examination for any reason is responsible for contacting the instructor prior to the exam.
3. No makeup opportunity will be given for absences of quizzes.

## V. Class Attendance and Homework Make-Up Policy:

1. Class attendance is necessary to acquire the knowledge required to meet the course objectives
2. Students are responsible for completing all homework assignments on time, 10% penalty per day will be applied for
late work

## VI. Classroom Expectations:

Actively participate in class and with team members during group work.

| Outcomes | Assessments – How it is met & When it is met |
|---|---|
| 1. Solve for forces in all planar structures for machines at rest, or in constant motion, with due regard to friction. | Problem based quizzes, homework and exams |
| 2. Solve for forces in selected space frames and trusses. | Problem based quizzes, homework and exams |
| 3. Analyze and compute centroids and moment of inertia | Problem based quizzes, homework and exams |

M. Recommended Grading Scale:

| NUMERIC | GRADE | POINTS | DEFINITION |
|---|---|---|---|
| 93–100 | A | 4.00 | Superior |
| 90–92 | A- | 3.67 | Superior |
| 87–89 | B+ | 3.33 | Above Average |
| 83–86 | B | 3.00 | Above Average |
| 80–82 | B- | 2.67 | Above Average |
| 77–79 | C+ | 2.33 | Average |
| 73–76 | C | 2.00 | Average |
| 70-72 | C- | 1.67 | Below Average |
| 67–69 | D+ | 1.33 | Below Average |
| 63-66 | D | 1.00 | Below Average |
| 60-62 | D- | 0.67 | Poor |
| 00-59 | F | 0.00 | Failure |

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

**Important information regarding College Procedures and Policies can be found on the syllabus supplement located at https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf**