North Central State College

MASTER SYLLABUS	2026-2027

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

B. Discipline: Engineering Technology

C. Course Number and Title: ENGR1010 Introduction to Engineering

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

E. Credit Hours: 2
Lecture: 1 hour
Laboratory: 2 hours

F. Prerequisites: None

G. Last Course/Curriculum Revision Date: Fall 2026 Origin date: 05/11/2011

H. Textbook(s) Title: None

I. Workbook(s) and/or Lab Manual: None

J. Course Description: This is an introductory course for engineering technology students. Students will develop a deeper understanding and appreciation of engineering, the problems engineers encounter and the contributions made by engineers from various disciplines. The ethics and responsibilities of the engineer will be discussed. Lab experience includes the following PC applications: operating systems and hardware, word processors, spreadsheets, and engineering graphing. An introduction to computer programming is included with emphasis placed on using a PC to solve engineering problems and produce results.

K. College-Wide Learning Outcomes

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	PowerPoint Presentation Lab Speech – Second Half of Term
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:

Outcomes	Assessments – How it is met & When it is met
1. Use the computer as a tool to help solve engineering related problems.	Labs, Projects, and Quizzes – Throughout the entire term Midterm, Final
2. Function on a team in an academic environment.	Project with written report and presentation
3. Analyze and discuss ethics in engineering practices using several scenarios involving an engineer faced with ethical choices.	In class participation and discussion. Written conclusion.
4. Write a simple program with inputs, calculations, decisions, and outputs in a modern programming language chosen by the course coordinator.	Labs and Quizzes – Throughout the entire term Final Exam.
5. Demonstrate hands-on skills related to applications of engineering.	Projects and Lab throughout the term.
6. Understand and solve open-ended problems related to engineering.	Final Projects and Labs throughout the term.

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	Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Below Average
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

North Central State College

SYLLABUS ADDENDUM

Academic Division:	Engineering Technology, Business & Criminal Justice	**Discipline:**	Engineering Technology
Course Coordinator:	Jonathan DeWitt		
Course Number:	ENGR1010	**Course Title:**	Introduction to Engineering
Semester / Session:	Fall 2026 / Session A/B	**Start / End Date:**	8/17/2026 – 12/11/2026

Instructor Information

Name:	Jonathan DeWitt	**Phone Number:**	419-755-4776
		E-Mail Address:	jdewitt@ncstatecollege.edu
Office Location:	007 AT (Kehoe)	**Office Hours:**	Monday 2:30 PM - 4:30 PM Wednesday 2:30 PM - 4:30 PM

I. Topical Timeline (Subject to Change):

Week	Topics	Assignment	Due Date
1	Identify hardware of a typical PC. 1. Block Diagram 2. Hardware identification a. Motherboard b. Power supply c. Drives d. Memory e. Ports (USB/Serial/Parallel) f. Video g. Sound 3. Microprocessor fetch/execute cycle 4. Disks and using software	Go through the week 1 material in Canvas. Watch the videos given in the links and read the articles directed. Assignments Due: 1) Assignment Example 2) Your First Assignment 3) Quiz 1 – Start Here Module Quiz 4) PC Questionnaire Quiz 5) Tell Us About Yourself	At close of week 1 as designated in Canvas
2	Windows, current version(s) 1. Environment & Icons 2. Desktop 3. Explorer 4. Multiple Apps 5. Properties 6. Clipboard 7. Folders 8. Creating folders 9. Renaming files 10. Copy/Cut/Paste Start of computer programming	Windows Explorer Lab: Demonstrate proficiency in using Windows Explore and file management. Python Lab 1	At close of week 2 as designated in Canvas
3	Word Processing Computer programming continued	Word Processing Lab, Python Lab 2	At close of week 3 as designated in Canvas

Week	Topics	Assignment	Due Date
4	Spreadsheet & Charts (Graphs) 1. Cells, rows, columns 2. Text vs. data 3. Formulas & Functions 4. Filters 5. Chart Types & Creation 6. Chart Labels & Titles Computer programming continued	Parts and Cost Analysis Lab, Python Lab 3	At close of week 4 as designated in Canvas
5	Continue spreadsheet development.	Lab 4-1 Contractor Assignment, Lab 4-2 Hybrid/Diesel Comparison	At close of week 5 as designated in Canvas
6	Spreadsheet Case Study Spreadsheet Chart Creation	Lab 4-3 Household Electrical Load Calculation, Create a Pie Chart, Create a Column Chart, Create a Line Graph, Creating Graphs in Spreadsheets	At close of week 6 as designated in Canvas
7	PowerPoint	PowerPoint Lab 1 PowerPoint Lab 2	At close of week 7 as designated in Canvas
8	Midterm Exam	Midterm Exam	At close of week 8 as designated in Canvas
9	Engineering Disasters Case Studies	Engineering Disasters Research Paper In class presentation of Week 7 PowerPoint presentation (PowerPoint Lab 2)	At close of week 9 as designated in Canvas
10	Research and discuss a variety of disciplinary and career options and areas within engineering Computer programming Continued	Engineering Careers Research Paper, Python Lab 4	At close of week 10 as designated in Canvas
11	Analyze and discuss ethics in engineering practices using several scenarios involving an engineer faced with ethical choices.	Read ASME Code of Ethics and submit "Engineering Ethics" Word document Engineering Ethics Case Study 1	At close of week 11 as designated in Canvas
12	Computer programming continued	Python Lab 5 Python Lab 6	At close of week 12 as designated in Canvas
13	Computer programming continued	Python Lab 7 Python Lab 8	At close of week 13 as designated in Canvas
14	Computer programming continued	Python Lab 9 Python Programming Project 1- C to F Conversion	At close of week 14 as designated in Canvas
15	Ethics Roundtable Discussions Computer programming continued	Ethics Roundtable Discussions Python Programming Project 2- F to C Conversion Python Programming Project 3- Volume of a Cylinder	During your class in week 15 as designated in Canvas AT close of week 15 as designated in Canvas
16	Final Exam	Final Exam	During your class in week 16 as designated in Canvas

II. Course Assignments:

1. Videos
2. On-line reading assignments
3. Handouts
4. Laboratory exercises

III. Grading and Testing Guidelines:

Online and in-class quizzes	30%
Assignments	30%
Midterm Exam	20%
Final Exam	20%
Total	100%

IV. Examination Policy:

Both the Midterm and Final exam must be taken in class during weeks 7 and 15. No makeup times will be allowed ***unless you make prior arrangements with your instructor!***

If you miss the Midterm exam your Final exam score will be counted as worth 40% of your grade instead of 20%.

V. Class Attendance and Homework Make-Up Policy:

This is a 2 Credit hour course. You should plan 4-5 hours (or more) per week ***working outside of the classroom*** on homework and lab assignments

VI. Classroom Expectations:

Everyone is expected to be courteous to fellow students and their instructors while in the classroom. Disruptive behavior cannot be tolerated for the sake of all students. Your instructor determines what is disruptive behavior. Attendance is mandatory the first day of the course, for orientation and reporting reasons. Students not attending the first day of the class will be automatically dropped from the class.