North Central State College

MASTER SYLLABUS	2025-2026

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

B. Discipline: Manufacturing

C. Course Number and Title: MFGT1110 – Manufacturing Processes

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

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

F. Prerequisites: None

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

H. Textbook(s) Title:

OPTIONAL BOOK – NOT REQUIRED
Shop Reference for Students and Apprentices

- Author: Edward G. Hoffman
- Year: 2001
- Edition: 2nd
- ISBN: 9780831130794

I. Workbook(s) and/or Lab Manual: Provided by Instructor

J. Course Description: This course offers an introduction to manufacturing methods and basic machine tool operation. Students will be provided the background needed to read and interpret technical drawings and proper use of a variety of inspection and measuring tools. Students will also develop and use shop documents such as job plans and blueprints. Diligent attention is given to safety in the modern manufacturing environment.

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	

North Central State College

SYLLABUS ADDENDUM

Academic Division:	Eng. Tech, Business & Crim. Jus. D	**Discipline:**	Manufacturing
Course Coordinator:	Alex West		
Course Number:	MFGT-1110-902	**Course Title:**	Manufacturing Processes
Semester / Session:	Fall 2025	**Start / End Date:**	08/11/2025 thru 12/12/2025

Instructor Information

Name:	Alex West	**Credentials:**	B.S. Mechanical Engineering
Phone Number:		**E-Mail Address:**	awest@NCStateCollege.edu
Office Location:	003	**Office Hours:**	Thursday 12:30 ~ 1:30 & Friday by Appointment

I. Topical Timeline / Course Calendar (Subject to Change):

Weeks	Topics	Assignment	Due Date
1	Syllabus Review, OSHA Training & SDS Training	Quiz	Week 1
2	Measurement Instruments	Quiz	Week 2
3	Casting Lecture & Lab	Read Chapter	Week 4
4	Casting Lab	Lab Assignment	Week 4
5	Extension Lecture & Lab	Read Chapter	Week 6
6	Rolling/Forging Lab	Lab Assignment	Week 6
7	Test		Week 7
8	Fall Break		Oct. 3rd
9	Machining Cutting Safety	Read Chapter	Week 10
10	Machining Lab	Lab Assignment	Week 10
11	Adhesive Lecture & Lab	Lab Assignment	Week 11
12	Welding Safety Lecture	Read Chapter	Week 13
13	Welding Lab	Lab Assignment	Week 13
14	Fasteners & Torque Lecture & Lab	Read Chapter	Week 15
15	Blue Prints & CAD	Lab Assignment	Week 15
16	Thanksgiving Break		Nov. 28th
17	Review		
18	Test		Week 18

II. Grading and Testing Guidelines:

Final Grade Calculation

Activity	Qty	Points	Percentage
Quiz	2	15	20%
Assignments & Readings	11	10	50%
Test	2	50	30%

Course Number: _____ **Course Title:** _____
Semester / Session: _____ **Start / End Date:** _____

III. 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 _____
   a. Upon return to class, see the instructor about making up examination.
   b. No makeup times will be allowed unless you make prior arrangements with your instructor!
3. No makeup opportunity will be given for absences of unscheduled quizzes.

IV. Class Attendance and Homework Make-Up Policy:

1. Class attendance is necessary to acquire the knowledge required to _____
   a. ensure the commitment to student success, attendance must be taken in all classes, regardless of modality, starting with the first day of the class. This is mandated by regulations established by the Department of Education and the Veterans Administration. Faculty are required to keep accurate records of attendance, and
   b. Students are required to attend class and participate in their learning. Failure to attend class and/or participate in their learning may result in students being withdrawn from the class.
2. Students are responsible for _____
   a. Students are expected to attend and participate in their classes; therefore, faculty must monitor student attendance and participation and incorporate these requirements into their course syllabi.
   b. Student engagement is based on the "active pursuit" of learning which can be measured by class attendance, class participation (in class or online), taking required quizzes/examinations, and submission of work assignments or papers.
   c.

V. Classroom Expectations:

As a NC State Student, be it online or hybrid, your conduct in this course is subject to the NC State Student Code of Conduct. (Links to an external site.) As a future professional in your field, you will be expected to conduct yourself as a professional in this course in ALL work and communications - be it assignments, discussion forums, Canvas Inbox, emails etc. This includes but is not limited to:

1. Being respectful of classmates' opinions, work and comments
Good test = Is this something I would/should say to a co-worker in person?
2. Being respectful in communications with the instructor
Good test = Is this something I would/should say to my boss in the workplace?
3. Being respectful
Good test = Is this a comment/joke that is at some other groups, ethnicity, political etc. expense? Note: Offensive "jokes", slurs or hate speech (Links to an external site.) will NOT be tolerated
4. Using Non-Profane, Appropriate Language
Good test = Is this language you would use in the workplace or in front of your grandmother?
5. Using proper. NON-"Text speak" Language to make Yourself Easily Understood Good test = Could my older boss understand what I have written?
6. Failure to conduct yourself as a professional and meet standards above in this course will result in the following consequences in this course:

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. Demonstrate proficiency in safety regulations.*	Week one and throughout semester:
2. Demonstrate proficiency in interpreting industrial drawings and blueprints.	Lab projects and activities, guided notes in workbook, homework and Exams.
3. Demonstrate proficiency in the use of measuring instruments.*	Lab projects and activities, guided notes in workbook, homework and Exams.
4. Operate Machine Tools accurately and in accordance with OSHA safety regulations.	Lab projects and activities, guided notes in workbook, homework and Exams.
5. Demonstrate accurate layouts to print specifications, following OSHA chemical handling safety procedures.	Lab projects and activities, guided notes in workbook, homework and Exams.
6. Demonstrate application of math skills to lab and lecture assignments and apply empirical data to determine speeds and feeds to optimize production efficiencies.*	Lab projects and activities, guided notes in workbook, homework and Exams.
7. Demonstrate ability to locate information.	Lab projects and activities, guided notes in workbook, homework and Exams.
8. Distinguish between different manufacturing processes such as forgings, extrusions, castings, forming, and finishing.*	Lab projects and activities, guided notes in workbook, homework and Exams.
9. Demonstrate an understanding of the interrelationships between material properties and manufacturing processes.*	Lab projects and activities, guided notes in workbook, homework and Exams.
10. Distinguish between different fabrication processes such as welding, fasteners, and adhesives.*	Lab projects and activities, guided notes in workbook, homework and Exams.

*indicates a TAG outcome

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