MET 4890 - Special Topics in Mechanical Engineering Technology

Fall 2026 Syllabus, Section 04, CRN 44312,

Credit hours: 3

Instructor

John Carballo

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Public Instructor Information

Instructor Title:Mr. John Carballo
Instructor Professional Qualifications:

- Bachelor of Fine Arts, Youngstown State University, 2000
- CNC Machinist and programmer
- Mazak 5-axis hybrid CNC systems operator & programmer

Instructor Office Location: Moser Hall #4106
Instructor Office Phone:330.941.3287

Course Description

4890. Special Topics in Mechanical Engineering Technology. New developments in Mechanical Engineering Technology. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 6 s.h. Senior standing in MET or consent of the instructor. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Introduction to Computer Numerical Control (5th ed.), J Valentino & J Goldenberg		

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Fri	8/28	1,2	Introduction, System Types, ROI, Positioning	
Fri	9/4	3,8,9	Tooling for holes and milling, G-Code	
Fri	9/11	4,8,9	CNC Machining Centers, G-Code	
Fri	9/18	7,8,9	Shop Procedures, Work Holding, G-Code	
Fri	9/25	9,10,12,8,9	Hole Operations, Linear Profiles, G-Code	
Fri	10/2	14,15,16,8,9	CNC Lathes, G-Code	
Fri	10/9	15,16,8,9	Lathe Programming, G-Code	
Fri	10/16	Midterm		
Fri	10/23	8,9	G-Code	
Fri	10/30	5,7, 8,9	Drawings, G-Code	
Fri	11/6	5,6,7, 8,9	Materials, GD&T, Math, G-Code	
Fri	11/13	11, 8,9	Circular Interpolation, G-Code	
Fri	11/20	12,15, 8,9	Cutter Compensation, G-Code	

Fri	11/27	9,13, 8,9	Subprograms, Canned Cycles, G-Code
Fri	12/4	14,16, 8,9	Turning, G-Code
Fri	12/11	Final	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.