

UNIVERSITY OF NORTH TEXAS
MEEN 4760 / 5740 SYLLABUS
Introduction to Robotics and Automation 3 hours

Instructor: Dr. Mark Wasikowski

Office Hours: NTDP F101L by appointment.

Email Address: mark.wasikowski@unt.edu (DO NOT use CANVAS email)

Teaching Assistants: TBD

Course Description: Introduction to robotics, mechatronics and manufacturing automation. Robotic mechanisms and modeling, forward and inverse kinematics, manipulator dynamics, systems modeling, sensors and actuator integration, trajectory planning, vision, sensors, and classical / modern feedback control. MATLAB used for project-based learning. Students are given laboratory project assignments in robotics and automation.

Pre-requisites:

- 1) MEEN 2240 Programming (or equivalent)
- 2) MEEN 3230 System Dynamics and Control (or equivalent)

Course Text: None Required. The following are recommended:

1. Craig, "Introduction to Robotics: Mechanics and Control", 4th, Pearson
2. Lynch, "Modern Robotics: Mechanics, Planning, and Control", 1st, Cambridge
3. Spong, "Robot Modeling and Control", 1st, Wiley
4. Corke, "Robotics, Vision & Control: Fundamental Algorithms MATLAB", 2nd, Springer

GRADING RUBRIC. Standard 90/80/70/60 letter grade used

Attendance:	15%
Homework:	20%
Quizzes:	30%
Design Project:	20%
Final Exam OR Lab Projects:	15%

Must choose either final exam or Lab projects by due date. No changes without instructor approval. NO late work accepted. No make-up work permitted, except documented university excused absences. Roll call attendance. No late attendance. Zero tolerance for Academic dishonesty - 0 on assignment. MATLAB codes showing significant similarity receive 0 score. Instructor reserves right change syllabus.

Please review UNT website for applicable policies, including Emergency Notification & Procedures, acceptable student behavior and student code of conduct, academic integrity, ADA, SPOT course evaluations, retention of student records, Prohibition of Discrimination, Harassment, and Retaliation, Sexual Assault Prevention, federal VISA regulations, and Academic Support & Student Services.