

UNIVERSITY OF NORTH TEXAS
MEEN 4800.007 and 5800.007/607 SYLLABUS
Introduction to Robotics and Automation 3 hours

Instructor: Dr. Mark Wasikowski

Office Hours: NTDP F101L. 10 am – 12 pm. MTWR or by appointment.

Office Phone: (940) 369-8030

Email Address: mark.wasikowski@unt.edu (emergencies only)

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 feedback control. MATLAB is used for project based learning. Students are given laboratory project assignments in robotics and automation.

Pre-requisites:

- 1) MEEN 2240 Programming (using MATLAB)
- 2) MEEN 3230 System Dynamics and Control

Course Text: None Required. Information from recommended texts combined into lecture notes for you. In class examples supplement notes. More detailed reading is at:

- 1) Introduction to Robotics: Mechanics and Control, 4th Ed, Craig, Pearson
- 2) Robotic Modeling and Control, Spong, Wiley
- 3) Robotics, Vision, and Control, 2nd Ed, Corke, Springer
- 4) Introduction to Computer Numerical Control (CNC), 5th, Valentino, Pearson

GRADING RUBRIC

Attendance:	15%	A: ≥ 90.0
Home Practice:	15%	B: ≥ 80.0
6 Quizzes:	30%	C: ≥ 70.0
MATLAB Projects:	20%	D: ≥ 60.0
Laboratory Projects:	20%	F: < 60.0

Re-grade request must be made in class day is returned. No re-grade requests after class dismissed. Entire exam will be re-graded, which may result in lower score than originally assigned. Make-up NOT allowed. Only exception being University excused absences with documentation provided. NO late re-grade or grade change requests accepted. Attendance taken at beginning of class with roll call or iclicker. Must be present to receive credit. No late attendance.

Calculators: A scientific calculator with linear algebra capability would be helpful.

ACCESS TO INFORMATION – EAGLE CONNECT

Students' access point at: my.unt.edu. CANVAS used to for syllabus, homework, lectures, grades, etc. Instructor can only communicate through CANVAS to your UNT eagle account.

ACCEPTABLE STUDENT BEHAVIOR

Course follows student Code of Student Conduct at deanofstudents.unt.edu/conduct.

ACADEMIC INTEGRITY STANDARDS AND SANCTIONS FOR VIOLATIONS

Course follows UNT Policy 06.003. Academic dishonesty will not be tolerated and will result in score of zero on assignment. Student reported to Office of Academic Integrity.

ADA STATEMENT

Course follows UNT learning disability policy at disability.unt.edu

STUDENT PERCEPTIONS OF TEACHING EFFECTIVENESS (SPOT)

Course participates in SPOT evaluations (<http://spot.unt.edu/> or email spot@unt.edu).

RETENTION OF STUDENT RECORDS

Course follows Family Educational Rights and Privacy Act (FERPA) laws and UNT Policy 10.10, Records Management and Retention.

SYLLABUS CHANGES

Instructor reserves right change syllabus. Any changes will be announced in class and posted to CANVAS with an accompanying email to student's UNT email address.