UNIVERSTY OF NORTH TEXAS SYLLABUS
MEEN 4760 / 5740 *Introduction to Robotics and Automation* 3 credit hours

Instructor: Dr. Mark Wasikowski
Office Hours: DP F101L; Office Hours: open door policy, or by appointment
Email Address: mark.wasikowski@unt.edu (use myUNT, NOT CANVAS email)
Lecture: MW 12:15 - 1.35 pm, NTDP F183, in-person format only

MEEN 4760: 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 is used for project-based learning.

MEEN 5740: Robotics, mechatronics, and manufacturing automation. Robot modeling, kinematics, kinetics, sensors and actuator, trajectory planning, vision, artificial intelligence, classical and modern feedback control. MATLAB is used for project-based learning.

Pre-requisites (passed C or better):
1) MEEN 3230 Systems & Controls (or equivalent)
    a. Newtons Laws, free body diagrams, dynamics, control systems, root locus
    b. MATH 3410 (Differential equations), ENGR 2302 (Mechanics II - dynamics)
2) MEEN 2240 Programming for Mechanical Engineers (or equivalent)
    a. software algorithm development and programming, MATLAB and SIMULINK
    b. MATH 2700 (Linear Algebra and Vector Geometry)

Software: MATLAB (https://aits.unt.edu/software/matlab.html).

GRADING RUBRIC: standard 90/80/70/60 scale. No curve. Perceived effort is not considered.

Knowledge Assessment Items	***% Final Grade***
Attendance	*6%*
Home Projects	*20%*
Quizzes (6 @ 4% each)	*24%*
Group Project Checkpoints (4760 Practical, 5740 Research oriented)	*20%*
Group Project Final Presentation (near end of class)	*20%*
**4760: Project Lab (or traditional homework)* **5740: Research Paper*	*10%*
Total	*100%*

1. Students' responsibility to attend class, check CANVAS announcements, assignments, etc. stay current.
2. Class attendance is important and graded via roll call near 12.15. Late attendance earns no credit.
3. Submit homework by due date / time. No late homework because solutions are immediately available.
4. No extra credit for individual students. No special accommodation, at semester end, to boost grades.
5. Cheating results in automatic failing course grade & reporting to UNT Office of Academic Honesty
6. Any absence for which accommodation is requested must be promptly documented within < 1 week after assignment was due. Otherwise, no accommodation is available.
7. Course follows all UNT policies. Instructor reserves right to make administrative change syllabus.