UNIVERSTY OF NORTH TEXAS SYLLABUS
MEEN 4120 4180 / 5600 Feedback Control Systems SPRING 2024. 3 Credit hours

Instructor: Dr. Mark Wasikowski
Office Hours & Email: By appointment, F101L or Zoom, mark.wasikowski@unt.edu
Lectures: NTDP F187, MW 8:30 – 9:50 am
Course format: in-person only. No remote participation.

MEEN 4180 Feedback Control Systems: Overview of feedback controls, modeling of dynamics systems, dynamic responses. Analysis and design of control systems, PID control, frequency response design and introduction to digital control. Various control systems design principles and case studies.

MEEN 5600 Feedback Control of Dynamical Systems: Introduces the fundamental principles of modeling, analysis, and control of dynamic systems. Topics include mathematical modeling of dynamic systems, including mechanical, electrical, fluid, and thermal systems; Laplace transform solution of differential equations; transfer functions / system responses in time / frequency domain; control systems design; state space-based analysis & design of control systems; and computer simulation for modeling and control system design (Matlab/Simulink).

TEXTBOOK RESOURSES:

1. "Dynamic Systems and Control Engineering", Jalili, Cambridge, Digital (9781108912921)
2. "Modern Control Systems", Dorf, Pearson, 14th or recent
3. "Control Systems Engineering", Nise, Wiley, 8th or recent

ADDITIONAL RESOURCES: Computer projects: MATLAB, SIMULINK, SIMSCAPE

GRADING RUBRIC: A >= 90, B >= 80, C >= 70, D >= 60, F < 60.

1. 35%: Classroom Interaction: attendance, quizzes
2. 25%: Independent Study: textbook reading, homework, computer projects
3. 20%: midterm exam, Wednesday, 6 March, 8.30 – 9.50 am.
4. 20%: final exam, Monday, 6 May, 8 – 10 am.

Class attendance is mandatory. Student responsibility to attend class, check CANVAS announcements, assignments, exams, etc. No late homework - solutions available in class immediately after due. Quizzes occur anytime in-class - announced or unannounced. Must be present for credit. No quiz make-up. No exam make-up without documented excused absence. No copying software code. Your submission will be run to verify results. Codes submitted to Turnitin to check for copying and compared to other students.

Any student found cheating fails course and reported to UNT Office of Academic Integrity.

Policies: Emergency Notification & Procedures, acceptable student behavior / student code of conduct, academic integrity, ADA/ODA, SPOT evaluations, student record retention, Prohibition of Discrimination, Harassment, Retaliation, Sexual Assault Prevention, VISA regulations, Academic Support & Student Services.

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