

UNIVERSITY OF NORTH TEXAS
MEEN 3230 System Dynamics and Controls
Summer 2026. 3 Credit hours

Instructor: Dr. Mark Wasikowski

Office Hours: DP F101L; Office Hours: MW noon - 1.50 pm. or zoom, by appointment

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

Lecture: MW 2:00-3.50 pm, NTDP F187, in-person format only

Course Description: Review of basic modeling techniques of the dynamic behavior of mechanical and electrical systems. Linear dynamics. Block diagrams. Feedback and compensation. Computer simulations of steady-state and dynamic behavior. Root locus and frequency response methods. Vibration analysis, control and suppression.

Prerequisites: NOT be pre-engineering major. Pass with C or better:

1. MATH 3410 Differential Equations
2. MATH 2700 Linear Algebra and Vector Geometry
3. ENGR (MEEN) 2302 Dynamics

Required Text: System Dynamics and Controls, Kelly, 1st Ed., Cengage.

Required Software: MATLAB (<https://aits.unt.edu/software/matlab.html>) through UNT.

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

Assessment Items	% Of Final Grade
<i>20x Attendance</i>	<i>15%</i>
<i>8x HomeWorks – weekly, due every Tuesday evening. Solutions posted Wednesday mornings. Reviewed in class on Wednesday’s</i>	<i>25%</i>
<i>7x Quizzes – weekly, every Monday. Lowest quiz dropped.</i>	<i>30%</i>
<i>Midterm Exam – 1 July</i>	<i>15%</i>
<i>Final Exam – 25 July</i>	<i>15%</i>
Total	100%

1. Student's responsibility to attend class, check CANVAS announcements, assignments, etc. stay current.
2. Attendance called via roll in class. Must be present for credit. NO credit for arriving late.
3. All assignments posted on Canvas. Students are responsible for checking on a routine basis.
4. No late homework because solutions are immediately available after the due date / time.
5. Regrades requested < 1 week from returning assignment – otherwise grade is final.
6. No extra credit for individual students. Do not request, at semester end, extra credit to boost grade.
7. Cheating results in automatic failing course grade & reporting to UNT Office of Academic Honesty
8. Any absence for which accommodation is requested must be documented.
9. UNT policies followed. Instructor reserves the right to make administrative syllabus changes.