

UNIVERSITY OF NORTH TEXAS

MEEN 3120 Fluid Mechanics

Summer 2025. 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](mailto:mark.wasikowski@unt.edu) (DO NOT use CANVAS email)

**Lecture:** MW 4-5.50 pm, NTDP 185, in-person format only

**MEEN 3120 Course Description:** Fundamental concepts and properties of fluids; hydrostatics; basic equations of fluid flow in differential and integral forms. Dimensional analysis, potential and viscous flow. Viscous boundary layers, pipe flow, turbulence, and fluid flow correlations for objects of simple shape.

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

1. MATH 2730 Multivariable Calculus (vector calculus and partial differential equations)
2. MATH 3410 Differential Equations (1<sup>st</sup> & 2<sup>nd</sup> order ordinary differential equations)
3. MEEN 2210 Thermodynamics 1 (0<sup>th</sup>, 1<sup>st</sup>, 2<sup>nd</sup> Laws of Thermodynamics)
4. MEEN 2332 Mechanics 3 (stress and strain)

**Required Text:** “Fluid Mechanics”, Hibbeler, 3<sup>rd</sup>, Pearson, MyLab Mastering ISBN-13: 9780137839292

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

<b>Assessment Items</b>	<b>% Of Final Grade</b>
<i>Participation / Attendance</i>	15%
<i>Homework – weekly, due at class time on Monday’s</i>	20%
<i>Quizzes – typically on Wednesday’s, plus the last class week</i>	50%
<i>Final Exam – 25 July</i>	15%
<b>Total</b>	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. Participation required / graded. Attending class, but not paying attention or participating, is a 0.
4. All assignments posted on Canvas. Students are responsible for checking on a routine basis.
5. No late homework because solutions are immediately available after the due date / time.
6. Regrades requested < 1 week from returning assignment – otherwise grade is final.
7. No extra credit for individual students. Do not request, at semester end, extra credit to boost grade.
8. Cheating results in automatic failing course grade & reporting to UNT Office of Academic Honesty
9. Any absence for which accommodation is requested must be documented.
10. The course follows all UNT policies. The instructor reserves the right change syllabus.