University of New Hampshire at Manchester

ET696 Special Topics in MET

Syllabus Spring 2020

OVERALL COURSE OBJECTIVE: To develop proficiency in applying principles of thermal and fluid analysis to situations commonly found in industry. Areas of application include piping systems, heat exchangers, turbomachinery, power cycles, and other devices.

CLASS MEETING INFO:

Section	Day	Start Time	End Time	Room
Lecture	Tuesday Thursday	2:01PM	3:20PM	Pandora 101
Lab	Tuesday	3:31PM	5:00PM	Pandora 116 & 101

INSTRUCTORS:

Prof. Sean Tavares, Lecture
Pandora Rm. 103
e-mail: Sean.Tavares@unh.edu

Prof. Robert Arredondo, Lab
Pandora Rm. 109
e-mail: Robert.Arredondo@unh.edu

REQUIRED TEXT:

Introduction to Thermal and Fluids Engineering, Updated Ed., Deborah A. Kaminski and Michael K. Jensen, ISBN: 9781118103487

BOOKS ON LIBRARY RESERVE: Copies of the following have been put on reserve for use in the library:

1. *Introduction to Thermal and Fluids Engineering*, Kaminski & Jensen (course text)
2. *Experimental Methods for Engineers*, J.P. Holman
3. *Engines, Energy, and Entropy*, J.B. Fenn

OFFICE HOURS (Prof. Tavares): As posted outside Room P103, and also by appointment. Students are encouraged to seek help before falling too far behind.

CLASS FORMAT: Classes will consist of lectures and labs.

ONLINE RESOURCE: **https://mycourses.unh.edu/**

GRADING POLICIES: Breakdown will be as follows:

Homework	30%	Tests (2)	30% (2 planned)
Labs	20%	Final Exam	15%
Class Probs/Quizzes	5%		

Homework solutions will be distributed no sooner than one class period after the due date. Homework turned in after solutions are handed out will not receive credit.

ASSIGNMENT SUBMISSION REQUIREMENTS: For homework assignments, lab reports, tests, and final exam:

(1) Show your work. (No partial credit can be given unless steps are clearly shown.)
(2) Clearly identify your final answers.
(3) Write legibly, define variables clearly, and use sketches where appropriate.
(4) Turn in homework assignments in hard copy form.
(5) Affix a copy of the problem statement sheet with your name written on it legibly to the front of all HW assignments.
(6) Securely staple together all pages of submitted assignments.
(7) Turn in lab reports in format requested by lab instructor (format may vary).

These items facilitate fair grading of the assignment and granting of partial credit where warranted. Working on homework and lab assignments in groups is permitted.

IMPORTANT INFORMATION ABOUT LABS:

1. Safety Glasses and Closed Toe Shoes are REQUIRED in the lab. Any student not adhering to this requirement will NOT be allowed to participate in the lab.
2. Format for lab reports will be specified for each lab. One or more labs may have an oral presentation.

ATTENDANCE: The University attendance policy can be found in the student handbook: https://www.unh.edu/sites/default/files/departments/student_life/2019-20_srrr_-_final_from_printing_-_formatted_for_website.pdf

SOME SPECIFIC ET 696 COURSE POLICIES:

Lectures: Students are responsible for all material covered in class. Regular class attendance and participation in discussions is strongly encouraged.

Tests and Final Exam: Tests will typically be scheduled during class time and/or the lab period. **(**Part or all of one or more tests may be given in Take Home format.) If a student needs to miss a test for any reason, the instructor must be notified prior to the session in which it is given. If an exam is missed without prior notification the student will receive a grade of zero. In extreme circumstances and if no prior notification is possible, the student must contact the instructor within 24 hours of the missed test or exam and submit in writing why the scheduled test period was missed. A modified exam may be given on a case by case basis. See the Disabled Student section if modified exams are required.

Labs: It is the student's responsibility to make up missed labs. Please notify the instructor prior to a lab if you will be absent.

Classroom Problems & Quizzes: These will be short problems and conceptual questions to be worked in class.

ACADEMIC HONESTY: In the preparation and presentation of any assigned work – including examinations, tests, quizzes, term papers, reports, themes and other written or oral exercises – every student shall conform to a strict standard of academic honesty. Any attempt to deceive a faculty member or to help another student to do so will be considered a violation of this standard.

In all assignments, students must acknowledge the words and/or ideas of others taken from print or electronic media, whether a direct quotation or a paraphrase; any omission of this is dishonest. Cheating on examinations or tests consists of knowingly giving, receiving, or using – or attempting to give, receive, or use – unauthorized assistance during an examination or test. A faculty member may record a grade of "zero" for any assignment on which a student has plagiarized or cheated. For repeat offenses within a single course, the faculty member may record a grade of "F" for the course. Violations of this policy in multiple courses may result in dismissal from the college.

The complete University policy on academic honesty can be found in the student handbook here: https://www.unh.edu/sites/default/files/departments/student_life/2019-20_srrr_-_final_from_printing_-_formatted_for_website.pdf

FOR STUDENTS WITH DISABILITIES: The University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with the Disability Services Office. The Disability Services Coordinator at UNHM is Jenessa Zurek. Jenessa can be contacted at (603) 641-4170, jenessa.zurek@unh.edu or in person in the Student Services Suite, Room (#410H).

CONFIDENTIALITY AND MANDATORY REPORTING: The University of New Hampshire at Manchester and its community are committed to assuring a safe and productive educational environment for all students and for the university as a whole. To this end, the university requires UNH faculty and staff members, hall directors, resident assistants (RAs), and other students employed in leadership, supervisory, and/or mentoring roles [such as Peer Assistant Leaders (PALs), Mentor Ambassadors for Transfer Engagement (MATEs) and the Center for Academic Enrichment (CAE) mentors and tutors] to report to the university's Title IX Coordinator (Donna Marie Sorrentino, dms@unh.edu**,** 603-862-2930/1527 TTY**)** any incidents of sexual violence, domestic violence, stalking and harassment shared by students regardless of whether it occurs on or off the Manchester campus. If you wish to speak to a confidential support service provider who does not have this reporting responsibility because their discussions with clients are subject to legal privilege, you can find a list of confidential crisis centers here. Please contact the crisis center that services the town you live in. For more information about what happens when you report, how the university considers your requests for confidentiality once a report is made to the Title IX Coordinator, your rights and report options at UNH (including anonymous report options) please visit https://www.unh.edu/affirmativeaction/reporting-students

CORRESPONDENCE TO ET PROGRAM ACCREDITATION: The UNH Engineering Technology Program is accredited by the Accreditation Board for Engineering and Technology (ABET). Learning objectives for ET courses are aligned with the ABET Outcomes for baccalaureate degree programs in Engineering Technology.

This course is designed to address the following specific MET Program Criteria for Baccalaureate Level Programs described in the section entitled *II. Program Criteria*.

c. Perform selection, set-up, and calibration of measurement tools/instrumentation;

d. Elements of differential and integral calculus;

i. Thermal sciences (such as thermodynamics, fluid mechanics, heat transfer, etc.);

l. Technical communications typically used in preparation of engineering proposals, reports, and specifications.