UNIVERSITY OF KENTUCKY

Current Course Report

5/5/2016 12:59:12 PM

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4/27/16

Course Information

Date Submitted: 5/3/2016

Current Prefix and Number: ME - Mechanical Engineering , ME 220 ENGR THERMODYNAMICS I

Other Course:

Proposed Prefix and Number: ME 220

What type of change is being proposed?

Major – Add Distance Learning

Should this course be a UK Core Course? No

1. General Information

a. Submitted by the College of: ENGINEERING

b. Department/Division: Mechanical Engineering

c. Is there a change in 'ownership' of the course? No

If YES, what college/department will offer the course instead: Select...

e. Contact Person

Name: Farzad Taghaddosi

Email: farzad.taghaddosi@uky.edu

Phone: 218-0643

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

f. Requested Effective Date

Semester Following Approval: Yes OR Effective Semester:

2. Designation and Description of Proposed Course

a. Current Distance Learning (DL) Status: Please Add

b. Full Title: ENGINEERING THERMODYNAMICS I

Proposed Title: ENGINEERING THERMODYNAMICS I

c. Current Transcript Title: ENGR THERMODYNAMICS I

Proposed Transcript Title: ENGR THERMODYNAMICS I

d. Current Cross-listing: none

Proposed – ADD Cross-listing :

Proposed – REMOVE Cross-listing:

e. Current Meeting Patterns

LECTURE: 3

Proposed Meeting Patterns

LECTURE: 3

f. Current Grading System: ABC Letter Grade Scale

Proposed Grading System: *Letter (A, B, C, etc.)*

g. Current number of credit hours: 3

Proposed number of credit hours: 3

h. Currently, is this course repeatable for additional credit? No

Proposed to be repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester? No

2i. Current Course Description for Bulletin: Fundamental principles of thermodynamics. (Note: Students enrolled in online versions of this course are expected to take proctored exams at an approved site that may incur additional fees. Details will be provided in the course syllabus.)

Proposed Course Description for Bulletin: Fundamental principles of thermodynamics.

2j. Current Prerequisites, if any: Prereq: PHY 231. Prereq or concur: MA 214.

Proposed Prerequisites, if any: Prereq: PHY 231. Prereq or concur: MA 214.

2k. Current Supplementary Teaching Component:

Proposed Supplementary Teaching Component: No Change

3. Currently, is this course taught off campus? No

Proposed to be taught off campus? No

If YES, enter the off campus address:

4. Are significant changes in content/student learning outcomes of the course being proposed? No

If YES, explain and offer brief rational:

5a. Are there other depts. and/or pgms that could be affected by the proposed change? No

If YES, identify the depts. and/or pgms:

5b. Will modifying this course result in a new requirement of ANY program? No

If YES, list the program(s) here:

6. Check box if changed to 400G or 500: No

Distance Learning Form

Instructor Name: Dr. Farzad Taghaddosi

Instructor Email: farzad.taghaddosi@uky.edu

Internet/Web-based: Yes

Interactive Video: No

Hybrid: No

1.How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations? The course syllabus conforms to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations. The use of Canvas, email, and web-conferencing provides for timely and appropriate interaction between students and faculty.

2.How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. Student learning outcomes are assessed for all sections of the course, along with the usual TCE evaluations.

3.How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. Standard university policy will be followed in all academic aspects, and all quizzes and exams will be proctored on-site.

4.Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? No.

If yes, which percentage, and which program(s)? N/A.

5.How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting? Access to student services will be the same as for other web-based courses in the University.

6.How do course requirements ensure that students make appropriate use of learning resources? Students will be required to access resources on-line using venues such as Canvas.

7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program. The course will not need the use of any laboratories or facilities/equipment.

8.How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)? Syllabus provides this access information.

9.Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? YES

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10. Does the syllabus contain all the required components? YES

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: Dr. Farzad Taghaddosi

SIGNATURE|MRE252|Michael W Renfro|ME 220 CHANGE Dept Review|20160203

SIGNATURE|BJSTOK0|Barbara J Brandenburg|ME 220 CHANGE College Review|20160331

SIGNATURE|JMETT2|Joanie Ett-Mims|ME 220 CHANGE Undergrad Council Review|20160427

SIGNATURE|JEL224|Janie S Ellis|ME 220 CHANGE Senate Council Review|20160503

SIGNATURE|MRE252|Michael W Renfro|ME 220 CHANGE Approval Returned to Dept|20160503

Course Change Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

Open in full window to print or save

Generate R

Attachments:

Browse... Upload File

	ID	Attachment
Delete	6736	ME 220_SU2016_Online_rev.04.19.16.pdf

First 1 Last

NOTE: Start form entry by choosing the Current Prefix and Number
(*denotes required fields)

	Current Prefix and Number:	ME - Mechanical Engineering / ME 220 ENGR THERMODYNAMICS I	*Proposed Prefix & Number:* (example: PHY 401G) ☑ Check if **same** as current	ME 220
*	What type of change is being proposed?	☐ Major Change ☑ Major – Add Distance Learning ☐ Minor - change in number within the same hundred series, exception the same "hundred series" ☐ Minor - editorial change in course title or description which does not i in content or emphasis ☐ Minor - a change in prerequisite(s) which does not imply a change in content or emphasis, or which is made necessary by the elimination or si alteration of the prerequisite(s) ☐ Minor - a cross listing of a course as described above		

Should this course be a UK Core Course? ○ Yes ◉ No

If YES, check the areas that apply:

☐ Inquiry - Arts & Creativity	☐ Composition & Communications - II
☐ Inquiry - Humanities	☐ Quantitative Foundations
☐ Inquiry - Nat/Math/Phys Sci	☐ Statistical Inferential Reasoning
☐ Inquiry - Social Sciences	☐ U.S. Citizenship, Community, Diversity
☐ Composition & Communications - I	☐ Global Dynamics

1. General Information

a. Submitted by the College of: ENGINEERING — Submission Date: 5/3/2016

b. Department/Division: Mechanical Engineering

c.* Is there a change in "ownership" of the course?

○ Yes ◉ No If YES, what college/department will offer the course instead? Select...

e.* * Contact Person Name: Farzad Taghaddosi Email: farzad.taghaddosi@uky.e Phone: 218-0643

* Responsible Faculty ID (if different from Contact): Email: Phone:

f.* Requested Effective Date: ☑ Semester Following Approval OR Specific Term: [2]

2. **Designation and Description of Proposed Course.**

a. Current Distance Learning(DL) Status:
○ N/A
○ Already approved for DL*
◉ Please Add
○ Please Drop

*If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box) tha proposed changes do not affect DL delivery.

b.	**Full Title:**	ENGINEERING THERMODYNAMICS I	*Proposed Title:* *	ENGINEERING THERMODYNAMICS
c.	**Current Transcript Title** (if full title is more than 40 characters):	ENGR THERMODYNAMICS I		
c.	*Proposed Transcript Title (if full title is more than 40 characters):*	ENGR THERMODYNAMICS I		
d.	**Current Cross-listing:** ☑ N/A	OR	Currently[1] Cross-listed with (Prefix & Number):	none
	Proposed – ADD[2] Cross-listing (Prefix & Number):			

	Proposed – REMOVE [3,4] Cross-listing (Prefix & Number):					
e.	**Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours [5] for each meeting pattern type.**					
Current:	Lecture 3	Laboratory[5]	Recitation	Discussion	Indep. Study	
	Clinical	Colloquium	Practicum	Research	Residency	
	Seminar	Studio	Other	Please explain:		
*Proposed: **	Lecture 3	Laboratory[5]	Recitation	Discussion	Indep. Study	
	Clinical	Colloquium	Practicum	Research	Residency	
	Seminar	Studio	Other	Please explain:		
f.	**Current Grading System:**	ABC Letter Grade Scale				
	*Proposed Grading System:**	◉ *Letter (A, B, C, etc.)* ○ *Pass/Fail* ○ *Medicine Numeric Grade (Non-medical students will receive a letter grade)* ○ *Graduate School Grade Scale*				
g.	**Current number of credit hours:**	3	*Proposed number of credit hours:**	3		
h.*	**Currently, is this course repeatable for additional credit?**	○ Yes ◉ No				
*	*Proposed to be repeatable for additional credit?*	○ Yes ◉ No				
	If YES;	*Maximum number of credit hours;*				
	If YES;	*Will this course allow multiple registrations during the same semester?*	○ Yes ○ No			

i. Current Course Description for Bulletin:

Fundamental principles of thermodynamics. (Note: Students enrolled in online versions of this course are expected to take proctored exams at an approved site that may incur additional fees. Details will be provided in the course syllabus.)

* *Proposed Course Description for Bulletin:*

Fundamental principles of thermodynamics.

j. Current Prerequisites, if any:

Prereq: PHY 231. Prereq or concur: MA 214.

* *Proposed Prerequisites, if any:*

Prereq: PHY 231. Prereq or concur: MA 214.

k.	**Current Supplementary Teaching Component, if any:**	○ Community-Based Experience ○ Service Learning ○ Both

	Proposed Supplementary Teaching Component:	○ Community-Based Experience ○ Service Learning ○ Both ◉ No Change
3.	**Currently, is this course taught off campus?**	○ Yes ◉ No
*	*Proposed to be taught off campus?*	○ Yes ◉ No
	If YES, enter the off campus address:	
4.*	**Are significant changes in content/student learning outcomes of the course being proposed?**	○ Yes ◉ No
	If YES, explain and offer brief rationale:	
5.	**Course Relationship to Program(s).**	
a.*	**Are there other depts and/or pgms that could be affected by the proposed change?**	○ Yes ◉ No
	If YES, identify the depts. and/or pgms:	
b.*	**Will modifying this course result in a new requirement[Z] for ANY program?**	○ Yes ◉ No
	If YES[Z], list the program(s) here:	
6.	**Information to be Placed on Syllabus.**	
a.	☐ Check box if changed to 400G or 500.	If changed to 400G- or 500-level course you must send in a syllabus and *you must include the differentiatio* undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; anc establishing different grading criteria in the course for graduate students. (See *SR 3.1.4.*)

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for l

fields are required!

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, ***distance learning*** is defined as educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instruct the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technolo

A number of specific requirements are listed for DL courses. **The *department* proposing the change in delivery method is responsible for ensuring that the require below are satisfied at the individual course level.** It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equi experience for students utilizing DL (available at http://www.uky.edu/USC/New/forms.htm).

Course Number and Prefix:	ME 220	Date:	1/21/2016
Instructor Name:	Dr. Farzad Taghaddosi	Instructor Email:	farzad.taghaddosi@uky.edu

Check the method below that best reflects how the majority of the course content will be delivered.

Internet/Web-based ☑ Interactive Video ☐ Hybrid ☐

Curriculum and Instruction

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to Univers Syllabus Guidelines, specifically the Distance Learning Considerations?

   The course syllabus conforms to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations. The use of Canvas, email, and web-conferencing provides for timely and appropriate interaction

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goa assessment of student learning outcomes, etc.

   Student learning outcomes are assessed for all sections of the course, along with the usual TCE evaluations.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; acac offense policy; etc.

   Standard university policy will be followed in all academic aspects, and all quizzes and exams will be proctored on-site.

4. Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via a DL, as defined above?

   No.

   Which percentage, and which program(s)?

   N/A.

   *As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL deli six months from the date of approval.

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom se

   Access to student services will be the same as for other web-based courses in the University.

Library and Learning Resources

6. How do course requirements ensure that students make appropriate use of learning resources?

   Students will be required to access resources on-line using venues such as Canvas.

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

   The course will not need the use of any laboratories or facilities/equipment.

Student Services

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/ of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?

   Syllabus provides this access information.

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)?

   (•) Yes
   ( ) No

   If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10. Does the syllabus contain all the required components, below? ☑ Yes

    - Instructor's ***virtual*** office hours, if any.
    - The technological requirements for the course.
    - Contact information for Distance Learning programs (http://www.uky.edu/DistanceLearning) and Information Technology Customer Service Center (http://www.uky.edu/UKIT/Help/; 859-218-HELP).
    - Procedure for resolving technical complaints.
    - Preferred method for reaching instructor, e.g. email, phone, text message.
    - Maximum timeframe for responding to student communications.
    - Language pertaining academic accommodations:
      - "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Res Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."
    - Specific dates of face-to-face or synchronous class meetings, if any.
    - Information on Distance Learning Library Services (http://www.uky.edu/Libraries/DLLS)
      - Carla Cantagallo, DL Librarian
      - Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)
      - Email: dlservice@email.uky.edu
      - DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

    Instructor Name:

    Dr. Farzad Taghaddosi

Abbreviations: DLP = Distance Learning Programs ATG = Academic Technology Group Customer Service Center = 859-218-HELP (http://www.uky.edu/UKIT/Help)

Revised 8/09

[11]See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair.* If Chair deems the change as "n form will be sent to appropriate academic Council for normal processing and contact person is informed.

[12]Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

[13] Signature of the chair of the cross-listing department is required on the Signature Routing Log.

[14] Removing a cross-listing does not drop the other course – it merely unlinks the two courses.

[15] Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab me meeting generally represents at least two hrs per wk for a semester for 1 credit hour. (See *SR 5.2.1.*)

[16] You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.

[17]In order to change a program, a program change form must also be submitted.

UNIVERSITY OF KENTUCKY
College of Engineering
Department of Mechanical Engineering

ENGR THERMODYNAMICS I
(ME 220–010)

SUMMER 2016

Instructor: Dr. Farzad Taghaddosi
Tel: 859-218-0642
Office: 167 Ralph G. Anderson Bldg. (RGAN)
Email: farzad.taghaddosi@uky.edu

The preferred method of contact is either through email (directly or through course website) or by phone, both listed above.

Lectures: Lecture notes & videos will be posted online on MWF, before 9 AM.

Office Hours: See the course website for virtual office hours.

Textbook (required): *Thermodynamics: An engineering Approach* (McGraw-Hill Connect), Çengel & Boles, 8th Edition, 2015.

Course Website: https://uk.instructure.com

Technical Support: Students experiencing difficulty with delivery of the course material, such as access to Canvas or logins, should inform the instructor and contact the UKIT Service Desk: 859-218-HELP(4357); Toll-Free: 1-877-481-UKIT(8548);
Email: helpdesk@uky.edu; http://www.uky.edu/ukat/Help

Course Description: Fundamental Principles of Thermodynamics.

Synopsis: The concepts of energy balance and efficiency are fundamental in analysis of many, if not all, engineering systems. This first course in engineering thermodynamics is intended to introduce students to these concepts. The course will emphasize both theoretical and practical aspects of such analysis. It is hoped that at the end of this course, the students will have gained a solid understanding of the fundamental concepts of energy/exergy balance and would be able to apply them to analyze real-life problems.

Prerequisite: PHY 231, **Prerequisite or Concurrent:** MA 214.

Course Content:

- Basic Concepts and Definitions
- Properties of Pure Substances
- Energy, Energy Transfer, and General Energy Analysis
- Energy Analysis of Closed Systems
- Mass and Energy Analysis of Open Systems (Control Volumes)
- The Second Law of Thermodynamics
- Entropy and Entropy Balance of Systems
- Exergy

Student Learning Outcomes: Upon completion of this course, you should be able to:

- Describe the basic thermodynamic concepts and definitions such as: property, state, process, cycle, equilibrium, phase, pure substance, etc.,

- Determine properties of real substances, such as steam and refrigerant 134-a, and ideal gases from either tabular data or equations of state,
- Explain different mechanisms through which energy can transfer to/from a system,
- Define the first law of thermodynamics and express it for a general thermodynamic system,
- Apply equations of mass and energy conservation to a system (closed or open) and analyze them,
- Explain the second law of thermodynamics and the concepts of reversible/irreversible processes,
- Describe entropy and calculate entropy changes of pure substances,
- Apply the second law of thermodynamics to a system and perform entropy balance,
- Explain the concept of exergy and perform exergy balance on a system,
- List various real-world applications of the energy/exergy analysis.

Additional Course Information: This is an entirely online course offered through Canvas. The content to be covered in each lecture (see lecture plan) will be delivered using multiple short video lectures. This will be supplemented with weekly online assignments and quizzes to assess student learning, and at least 2 online contact hours where students are expected to participate to discuss course material and/or ask questions. Given that this is a summer course (i.e., is shorter than a regular semester) and offered online, your success in this course will require high degree of self-discipline and dedication throughout the semester.

Students are required to have access to computer with high speed internet, web conferencing equipment (a webcam and headset/mic) and a scanner. Details about the course structure and content as well as information on how to set up a web meeting using Canvas will be provided via e-mail about one week prior to the beginning of the course. Also, the instructor will have online office hours during the week. The most suitable time for such meetings will be established at the beginning of the semester.

The following websites provide you with additional information:

- Distance Learning Library Services: http://libraries.uky.edu/dlls
- Distance Learning Programs: http://www.uky.edu/ukonline
- Laptop Borrowing Program: (not able to find the link!)

Grading Policy:

- Attendance & Participation: 10%
- Homework: 20%
- Exams (2): 35% each

The final course grade (letter grade) will be assigned as follows:

A	B	C	D	E
≥ 90	80 – 89	70 – 79	60 – 69	< 60

Attendance & Participation: There will be 2 online contact hours each week, where students are expected to attend at least one of them. Each weekly attendance is worth 5 pts. In addition, each week students are expected to participate in an online discussion forum by posting a comment about a question posed by the instructor or other students. Each weekly participation in the discussion forum will be worth 5 pts, as well. Your grade associated with Attendance & Participation will therefore be calculated by adding the points earned (max 60 pts) and dividing the total by 6 (given the 6-week duration of the course).

Homework: There will be weekly homework assignments to be completed online. To encourage continuous progress, I will drop your worst homework grade. If you miss an assignment deadline because of an excused absence, you will be given extended deadline to make up the missed work.

Exams: All exams will be closed-book and comprehensive, unless otherwise indicated. In general, there will be bonus problems in each exam. Per university policy, if you miss a test or quiz because of an excused absence, you will have the opportunity to make up the missed work. Any makeup exams/quizzes will be administered within the last week of classes and at least 2 days prior to the final exam. Students enrolled in this course are expected to take proctored exams at an approved site that may incur additional fees. Details will be provided later.

All grades will be posted on Canvas within a week after the submission/completion/due date. Any complaints regarding posted grades or reports of inaccuracies should be discussed with the instructor within one week of this date, after which no complaints will be heard.

Student Success: This course will require significant reading of the textbook and related material (the schedule is provided in the lecture plan). The reading should be completed by the date on which they are listed. While a considerable amount of class time will be devoted to problem-solving, students should expect to spend about 3 hours outside class studying for every hour of lecture. In general, to be successful in this course, it is recommended that you:

- Be active participants in class by asking questions and taking part in the discussions,
- Spend continuous effort, i.e., attend lectures regularly, read the textbook, review solved example problems in the book and understand them (very important), do additional end-of-chapter problems,
- Seek help from the instructor (or TA), when needed.

Communication Policy: All course information, lecture notes, important announcements, etc. will be posted on the course website on Canvas. This is actually how I will communicate with you. Therefore, it is important that you check your emails/Canvas on a daily basis. When sending emails to me, please make sure to either use Canvas or a UK-issued email account. For IT security, I will not respond to emails sent from other providers (such as Yahoo, Hotmail, Gmail, etc.). Note that I normally reply to student emails within 24 hours.

As future professionals, you are expected to consistently demonstrate integrity and professionalism through your everyday actions. One important way you demonstrate this behavior is how you communicate with others. When it comes to sending emails to faculty/TA's/staff, always follow the below guidelines (do not expect a reply from me, if your email lacks proper format):

- Fill the subject line with a topic that indicates the reason for your email to your reader,
- Respectfully address the individual by using their proper title (Dr., Prof., etc.),
- Avoid email, chat room, or text message abbreviations,
- Be brief and polite,
- Sign your name.

Student Conduct & Classroom Behavior: Students are expected to be respectful to classmates and instructor at all times. In an effort to create a professional atmosphere within the online classroom sessions, it is requested that you:

- Log in to web meeting a few minutes before the start of the session,
- Remain for the entire session, or if you must leave early, do so without disrupting others,
- Display professional courtesy and respect in all interactions related to this class.

Excused Absences: Students need to notify the professor of absences prior to class, when possible. University Senate Rules S.R.5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor. Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. See: www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php for details.

A student must notify and submit any written documentation supporting an excused absence within one week after the period of absence, except when the absence requires prior notification (religious holidays and, when possible, university-sponsored trips). If, for example, a student has an extended, two-week absence because of serious illness, the documentation would be due within one week after the student returns to classes.

Students should submit an Excused Absence request, by email or in writing, indicating the date, reason, and details of their absence. Note that if for any reason you miss a lecture, it is your responsibility to contact the instructor or classmates to obtain lecture notes, find out about announcements made in class such as assigned homework problems, due dates, etc. In case you experience any difficulties or life events that might impact your studies, you are strongly advised to seek help by contacting the instructor or the Student Affairs office (www.uky.edu/StudentAffairs).

Academic Integrity: Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rules 6.3.1 (see http://www.uky.edu/Faculty/Senate for the current set of Senate Rules) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording, or content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations Due to Disability: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (located at: Multidisciplinary Science Bldg., Suite 407, V/TDD 859-257-2754).

Student Support Services: A program designed to work with students who are first generation, have low income, or a documented disability. The SSS provides a comprehensive program of academic support (such as mentoring, tutoring, study skills class, financial literacy, etc.) that will maximize your chances for persistence to graduation. See: http://www.uky.edu/Diversity/SSS for details.

Lecture Plan (subject to change):

Week	Date	Topic(s)	Reading	Tests
1	5/11	Basic Concepts; Properties of Pure Substances	1.1 – 1.9, 3.1 – 3.4	
	5/13	Ideal Gas Equation of State	3.5	
2	5/16	Energy Transfer & Analysis	3.6–3.8	
	5/18	Energy Analysis of Closed Systems	2.1 – 2.6, 4.1 – 4.2	T1
	5/20	Specific Heats	4.3 – 4.5	
3	5/23	Review & Practice		
	5/25	Mass & Energy Analysis of Control Volumes	5.1 – 5.5	T2
	5/27	Steady Flow Processes & Applications		
4	5/30	Review & Practice		
	6/1	**MIDTERM EXAM**	6.1 – 6.11	T3
	6/3	Entropy & The Second Law of Thermodynamics	7.1 – 7.5	
5	6/6	Entropy Change of Pure Substances		
	6/8	Entropy Balance	7.6–7.10, 7.12	T4
	6/10	Review & Practice		
6	6/13	Exergy	8.1 – 8.7	
	6/15	Exergy Balance	8.8	T5
	6/17	Review & Practice		
7	6/20	Review & Practice		
	6/22	**Final Exam**		T6

* For each week's homework and corresponding due date, check: **Canvas > Assignments.**

Assignment due every Monday pm.