

Action Requested

- New Course
- Modification of Existing Course
- Deletion of Course

Complete the following sections:

- New Courses - B & C completely
- Modifications - A modified information, B & C completely
- Deletions - A & C completely

Date 3/7/2003

Effective Fall 2003

A. CURRENT LISTING

B. REQUESTED LISTING

Home Department Div # _____ Course Number _____

Cross Listed Course Information _____

Course Title _____

TITLE	Time Sched
ABBREVIATION	Max = 19 Spaces
	Transcript
	Max = 20 Spaces

Course Description _____

Home Department Civil & Environmental Engineering Div # 248 Course Number 230

Cross Listed Course Information _____

Course Title Thermodynamics

TITLE	Time Sched	Thermodynamics
ABBREVIATION	Max = 19 Spaces	
	Transcript	Thermodynamics
	Max = 20 Spaces	

Course Description for Official Publication (Max = 50 words)
 Engineering thermodynamics. First and second law applications for closed and open systems. Heat and refrigeration cycles. Physical properties of fluids and equations of state. Phase equilibria for pure fluids and fluid mixtures. Chemical reaction equilibria and aqueous-phase chemistry. Combustion processes. Vapor-liquid and solid-liquid equilibria.

PROGRAM OUTCOMES:

PROGRAM OUTCOMES:

a b c d e f g h i j k

Degree Requirements Degree Requirement Free Elective Other
 Core Course Tech Elective

Prerequisites Enforced Advised

Credit Restrictions _____

Level of Credit	Ugrad or Non-Rckhm Grad	Credit Hours	Contact Hrs/Wk
<input type="checkbox"/> Undergrad only	<input type="checkbox"/> All Credit types	Min Max	_____
<input type="checkbox"/> Rackham Grad	<input type="checkbox"/> Rckhm Grad w/add'l Work		Number of Wks _____
<input type="checkbox"/> Non-Rckhm Grad			
<input type="checkbox"/> Ugrad or Rckhm Grad			

a b c d e f g h i j k

Degree Requirements Degree Requirement Free Elective Other
 Core Course Tech Elective

Prerequisites Enforced Advised

Credit Restrictions _____

Level of Credit	Ugrad or Non-Rckhm Grad	Credit Hours	Contact Hrs/Wk
<input checked="" type="checkbox"/> Undergrad only	<input type="checkbox"/> All Credit types	Min Max	_____
<input type="checkbox"/> Rackham Grad	<input type="checkbox"/> Rckhm Grad w/add'l Work	4 4	4
<input type="checkbox"/> Non-Rckhm Grad			Number of Wks _____
<input type="checkbox"/> Ugrad or Rckhm Grad			14

C. Repeatability (Indi Research, Dir. Study, Dissertation):
 Is this course repeatable? Yes No
 Maximum Hours? _____ Maximum Times? _____
 Can it be repeated in the same term? Yes No

Class Type(s) Lec Rec Sem Lab Dis Ind Other _____

Graded Section Lec Rec Sem Lab Dis Ind Other _____

Grading A-E CR/NC S/U P/F Y

Location Ann Arbor Biological Station Camp Davis Extension

Printing Information (Optional) Print the course in the Bulletin Print the course in the Time Schedule

Terms & Freq. of Offering I II IIIa IIIb III
 Yearly Alter Years Even Years Odd Years

Half term 1st 2nd

Cognizant Faculty Member: C. Lastoskie Title Assoc. Professor

Grad Course: Attach nomination if Cognizant Faculty is not a regular graduate faculty

Approval

Curriculum Comm. _____

Faculty _____

Rackham _____

Cross listed Unit 1 _____

Cross listed Unit 2 _____

Submitted By: Home Dept. Cross-listed Dept.

Name, Signature & Department
 Home Dept. Nikolaos Katopodes, CEE *[Signature]*

Cross-listed Dept(s): _____

SUPPORTING STATEMENT

CEE 230 is the new undergraduate thermodynamics course in the CEE program. Additional supporting documentation for the introduction of this course is being provided to the College Curriculum Committee.

This course is being created to address problems that have been identified with CEE students taking the ME or CHE thermodynamics courses to satisfy their thermodynamics requirement. These courses are not well suited to provide the thermodynamics instruction that CEE students need due to an emphasis on mechanical systems (in the ME course) and an overlap in content with CEE 260 (in the case of the CHE course). The new CEE 230 course will provide thermodynamics instruction with an emphasis on phase equilibria and chemical equilibrium calculations, a key component of the environmental portion of the CEE curriculum. The CEE 230 thermodynamics course will also integrate more effectively with the introductory environmental engineering course, CEE 260.

[Dotted lines for additional text entry]

Are any special resources or facilities required for this course? Yes No

Detail the Special requirements

[Dotted lines for special requirements entry]