

**Mechanical Engineering Degree Plan**  
**Effective Fall 2006** (pending CB approval)

**Department of Mechanical Engineering**

**Chair:**

Matthew Franchek

**Associate Chair:**

David C. Zimmerman

**Professors:**

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**Associate Professors:**

Yi-Chao Chen, Timothy P. Harrigan (Adjunct), D. Keith Hollingsworth, Stanley J. Kleis, J. R. J. Rao, Gangbing Song

**Assistant Professors:**

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**Lecturer:**

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Received by Dr. Dalton 12/2/2005  
Updated 12/5/2005 by mjs  
Updated 12/5/2005 by CD/mjs

MECE

Changes approved

[Redacted]

12/20/05

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## Mechanical Engineering Degree Plan Effective Fall 2006 (pending CB approval)

### Mechanical Engineering Program

Mechanical engineering majors must earn a grade of C- or better in all engineering, mathematics, and science courses, including transfer courses. No grade lower than C- will be accepted on other courses transferred to the University of Houston.

Students must earn a 2.25 GPA in all courses and in MECE courses in order to enroll in 3000-level and above MECE courses. A minimum GPA of 2.000, both in MECE and overall, is required for graduation. The major GPA is calculated using all MECE courses except MECE 3400, which cannot be applied to the MECE degree. Prerequisites and corequisites must be satisfied for a course before a student can enroll in that course.

A drafting requirement (for no credit toward graduation) may be satisfied by completing CNST 1330 or MECT 3341. (This requirement may be met using other courses, high school drafting completed in the tenth, eleventh, or twelfth grade, or industrial experience, each by filing a petition in the department.)

## Mechanical Engineering Degree Plan Effective Fall 2006

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MECE - First Year 4

**Reason for Change**

<b>Fall Semester</b>	<b>Hours</b>
<u>CHEM 1117. Fundamentals of Chemistry for Engineers Laboratory</u>	1
<u>CHEM 4332. 1372. Fundamentals of Chemistry for Engineers</u>	3
<u>ENGL 1303. Freshman Composition I or ENGL 1309. English Composition for Nonnative Speakers I</u>	3
<u>MATH 1431. Calculus I<sup>2</sup></u>	4
<u>POLS 1336. U.S. and Texas Constitutions and Politics<sup>1</sup></u>	3
<b>Total</b>	<b>14</b>
<b>Spring Semester</b>	<b>Hours</b>
<u>ENGL 1304. Freshman Composition II or ENGL 1310. English Composition for Nonnative Speakers II, or ITEC 3372. Communicating Science, Engineering, and Technology Issues and Trends within the Global Marketplace</u>	3
<u>MECE 1109. Introduction to Mechanical Engineering</u>	1
<u>MECE 1331. Computing for Engineers</u>	3
<u>MATH 1432. Calculus II</u>	4
<u>PHYS 1321. University Physics I</u>	3
<b>Total</b>	<b>14</b>

## Mechanical Engineering Degree Plan Effective Fall 2006 (pending CB approval)

MECE - Second Year

	<u>Hours</u>
<b>Fall Semester</b>	
<u>MECE 2336, Mechanics I</u>	3
<u>MECE 2361, Mechanical Design I: Analysis and Synthesis</u>	3
<u>MATH 2433, Calculus III</u>	4
<u>PHYS 1322, University Physics II</u>	3
Humanities Core Course	3
<b>Total</b>	<b>16</b>
<b>Spring Semester</b>	
<u>HIST 1377 or 1378, The United States to 1877</u> *	3
<u>MATH 332L, Engineering Math</u>	3
<u>MECE 2334, Thermodynamics I</u>	3
<u>MECE 3336, Mechanics II</u>	3
<u>ENGI 2304, Technical Communications</u>	3
<u>POLS 1337, U.S. Government: Congress, President, and Courts</u> <sup>1</sup>	3
<b>Total</b>	<b>15</b>

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New Title "Introduction to Mechanical Design"

8

Moving to 3rdYY Fall Semester

Adding ENGI 2304 - Replaces SSW1 with Communications WI

## Mechanical Engineering Degree Plan Effective Fall 2006 (pending CB approval)

### MECE - Third Year

Fall Semester	Hours
<u>ECE 3336. Introductions to Circuits and Electronics</u>	3
<u>MATH 3363. Introduction to Partial Differential Equations</u>	3
<u>MECE 3334. Thermodynamics II</u>	3
<u>MECE 3345. Materials Science</u>	3
<u>MECE 3369. Solid Mechanics</u>	3
<u>HIST 1377 or 1378. The United States to 1877</u>	3
<u>Visual/Performing Arts Core Course</u>	3
<b>Total</b>	<b>18</b>

Moved HIST from 2ndYY Spring Semester  
Moving V/PA to 4thYY Fall Semester

Spring Semester	Hours
<u>HIST 1378 or 1379. The United States Since 1877</u>	3
<u>MECE 3245. Materials Science Laboratory</u>	2
<u>MECE 3338. Mechanical Design II</u>	3
<u>MECE 3360. Experimental Methods</u>	3
<u>MECE 3363. Introduction to Fluid Mechanics</u>	3
<u>MECE 3370. Computational Methods for Mechanical Engineers</u>	3
<u>MECE 3371. Numerical Methods for Mechanical Engineers</u>	3
<b>Total</b>	<b>17</b>

New Title " Dynamics and Control of Mechanical Systems"

Deleting and replacing with MECE 3371  
Adding new course MECE 3371 (pending CBM approval)

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### MECE - Fourth Year

Fall Semester	Hours
<del>MECE 4332. Mechanical Design-III</del>	3
Removing from degree plan and deleting	
MECE 4364. Heat Transfer	3
<del>MECE 4372. Mechanics-Controls-Vibrations Laboratory</del>	3
MECE 53xx. Mechanical Engineering	3
Elective I2	3
MECE 53xx. Mechanical Engineering	3
Elective I2	3
Visual/Performing Arts Core Course	3
Moved from 3rdYY Fall Semester	
Social-Sciences-Writing Intensive-Core Course	3
Removing SSWI from degree and replacing it with Communication W1 Core course ENGI 2304	
<b>Total</b>	<b>15</b>
	<b>48</b>

### Spring Semester

Spring Semester	Hours
<del>MECE 4334. Mechanical Design-IV</del>	3
MECE 4371. Thermal-Fluids Laboratory	3
MECE 53xx. Mechanical Engineering	3
Elective I2	3
MECE 53xx. Mechanical Engineering	3
Elective I2	3
MECE 53xx. Mechanical Engineering	3
Elective I2	3
Social Science Core Course	3
<b>Total</b>	<b>18</b>
Reducing Total Hours from 130 to 127	
<b>Degree Total:</b>	<b>127</b>
	<b>130</b>

## Mechanical Engineering Degree Plan Effective Fall 2006 (pending CB approval)

### Mechanical Engineering Minor

Students who choose to minor in mechanical engineering must complete the general requirements for a minor with at least 18 hours in Mechanical Engineering including MECE 2334, 3363, and 3400 or equivalent.

Courses in the minor program can be selected from any of the Mechanical Engineering courses listed in the Undergraduate Studies Catalog, including the senior level electives. No special problems or thesis courses are permitted.

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors and contact the undergraduate advisor in the Department of Mechanical Engineering.

Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. No course may count toward the minor in which a grade of less than C- is earned.

**UNIVERSITY of HOUSTON****Undergraduate Catalog  
2005-2007****Engineering: Footnotes**

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<sup>1</sup> Refer to the Academic Regulations and Degree Requirements section for information on equivalents and substitutions and to the Admission, Advising, Orientation, and Registration section for information on advanced placement examinations.

<sup>2</sup> Students not qualified to enter MATH 1431 must complete MATH 1300, 1310 and/or 1330, as indicated by results of the Mathematics placement examination, prior to enrolling in MATH 1431.

<sup>3</sup> Students must complete successfully one chemistry elective, two technical electives, and one science elective chosen from a list published by the Department of Chemical Engineering twice a year. These electives must be chosen from within one of the following six specialties: Process Engineering, Biotechnology, Electronic Materials, Process Control, Environmental Engineering, and Petroleum Engineering. Students must also complete successfully either Biochemical Engineering or Materials Science & Engineering II.

<sup>4</sup> This degree may require three additional semester hours. Note the graphics requirement described under this department section.

<sup>5</sup> Taught fall semesters only. To be taken during the first fall semester of enrollment in the Civil and Environmental Engineering Department.

<sup>6</sup> CIVE 4312 should generally be taken during the last year of registration before graduation. The prerequisites for Cive 4312 are listed in the course catalog; the prerequisites are different in the fall and spring semesters. In the fall semester CIVE 4312 is structures based while the spring course is water resources/environmental based.

<sup>7</sup> Students must complete three electives chosen from any Cive 4000- or 5000-level courses, with the approval of the undergraduate advisor. Cive 6000-level or appropriate courses outside Cive may be considered.

<sup>8</sup> A list of approved Technical Communication courses will be available in the department and posted on the departmental web site.

<sup>9</sup> Approved ECE or COSC elective: Any ECE course at the 3000-level or above, except ECE 3336, or choice of COSC 3480, COSC 3340, or any 4000-level COSC course.

<sup>10</sup> ECE elective/lab: Any ECE course with associated lab at the 3000-level or above, except ECE 3336.

<sup>11</sup> Technical Elective course must be 3000 level and above. Courses must be approved in advance by the Industrial Engineering departmental advisor.

<sup>12</sup> Electives can be chosen from any MECE 5000-level course, or upon approval of the department, a MECE



6000-level course or an appropriate course outside of MECE.

<sup>13</sup> Electives can be chosen from any BIOE 5000-level course, or upon approval of the Undergraduate Deputy Director, a BIOE 6000-level course, or an appropriate course outside of BIOE.

<sup>14</sup> A list of approved Computer Engineering electives will be available in the department and posted on the departmental web site.

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**For applications and admissions information: [Office of Admissions](#)**

### **Comments to UH Academics**

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