General Engineering

The general engineering program is designed to prepare students for admission into one of seven professional engineering programs available at UW-Platteville. All programs are accredited by the Accreditation Board of Engineering and Technology. All new freshman engineering students and transfer students who do not immediately qualify for a professional program must begin their UW-Platteville studies in the general engineering department.

Students admitted to the university must also have a score of 22 or higher on their math ACT or a grade of “C-” or better in Calculus I (Math 2640 or its equivalent) to gain admission into general engineering. Students who do not meet this engineering standard will remain in “pre-engineering” until obtaining a “C-” or better in Calculus I (Math 2640).

General engineering students have a variety of backgrounds; some are better prepared for their college studies than others. The GE program offers students an opportunity to correct academic deficiencies and ensures that students enter the professional programs with suitable preparation. The GE program also allows students several semesters to finalize their choice of major.

Upon entering the GE department, each student will be asked to select a preferred professional program (major). The student’s choice at this point is not binding; it will merely provide the college with some information for planning purposes. Students electing to change their program preference may do so at any time by stopping at the general engineering office, 153 Ottensman Hall.

In order to gain admission to one of the seven professional programs (civil engineering, electrical engineering, engineering physics, environmental engineering, industrial engineering, mechanical engineering, or software engineering), a student must satisfy all requirements of the general engineering program (see table below).

Because there are limits to the number of students that each professional program can accommodate, admission to the individual professional programs is somewhat competitive. Twice a year, each degree-granting department establishes a minimum core grade point average required for admission to its program(s) at the end of the semester. Admission to a specific program is based on the program's C.G.P.A. requirement in effect during the semester in which the student completes the GE requirements. The C.G.P.A. requirement for a given program does not reflect the difficulty of that program. The C.G.P.A. requirement simply indicates the accumulated level of student demand for that program. A student who completes the GE core courses and does not achieve the program’s minimum C.G.P.A. criterion may be admitted to that program by the department chair if space is available.

Sample First Semester Coursework
Although courses are tailored to the individual student’s background and major requirements, a typical first semester freshman schedule would be:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2640</td>
<td>Calculus w/ Analytic Geom. I</td>
<td>4 cr.</td>
</tr>
<tr>
<td>ENGLISH 1130</td>
<td>Freshman Composition</td>
<td>3 cr.</td>
</tr>
<tr>
<td>CHEM 1450</td>
<td>Chemistry for Engineers</td>
<td>5 cr.</td>
</tr>
<tr>
<td>GENENG 1000</td>
<td>Engineering Success Skills</td>
<td>1 cr.</td>
</tr>
<tr>
<td>PHYSED 1000</td>
<td>Fitness Assessment</td>
<td>1 cr.</td>
</tr>
<tr>
<td>Humanities or Social Science Elective</td>
<td></td>
<td>3 cr.</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14 to 17 cr</td>
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</table>

GE Program Requirements
1. Each student **must** complete the following core courses:

<table>
<thead>
<tr>
<th>CIVIL MAJOR</th>
<th>CHEM 1450</th>
<th>ENGLISH 1130</th>
<th>GE 1000</th>
<th>GE 1030</th>
<th>GE 1320</th>
<th>GE 2030</th>
<th>MATH 2640</th>
<th>MATH 2740</th>
<th>MATH 2730</th>
<th>PHYSICS 2240</th>
<th>COMP 1430</th>
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<tr>
<td>CIVIL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>ELECTRICAL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ENGINEERING PHYSICS</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>ENVIRONMENTAL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>INDUSTRIAL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>MECHANICAL</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>SOFTWARE</td>
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<td>X</td>
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<td>X</td>
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</tr>
</tbody>
</table>

* Select either GE 1320 or GE 2030

**CHEMISTRY 1450 Chemistry for Engineers** | 5 cr. |
**ENGLISH 1130 Freshman Composition** | 3 cr. |
**GE 1000 Engineering Success Skills** | 1 cr. |
**GE 1030 Introduction to Engineering Projects** | 1 cr. |
**GE 1320 Engineering and Computer Graphics** | 2 cr. |

GE 2030 Engineering Modeling and Design | 3 cr. |
MATH 2640 Calculus and Analytic Geometry I | 4 cr. |
MATH 2740 Calculus and Analytic Geometry II | 4 cr. |
MATH 2730 Discrete Mathematics | 3 cr. |
Physics 2240 General Physics I | 4 cr. |
Computer 1430 Programming in C++ | 4 cr.
2. Students who complete their core courses and have earned a C.G.P.A. listed below are guaranteed entry into a professional program of their choice:

- Civil Engineering: 2.60
- Electrical Engineering: 2.50
- Engineering Physics: 2.40
- Environmental Engineering: 2.60
- Industrial Engineering: 2.20
- Mechanical Engineering: 2.60
- Software Engineering: 2.30

A student who completes the GE core courses and does not achieve the program's minimum C.G.P.A. criterion may be admitted to that program by the department chair if space is available.

3. Each student must earn a grade of “C-” or better in Math 2640 and Math 2740.

4. Each degree-granting department also designates certain courses as “professional courses” that require a grade of “C-” or better. The professional courses for each department are:

   - Civil and Environmental Engineering – Any course that is a prerequisite for a civil or environmental engineering course.
   - Electrical Engineering – Any course that is a prerequisite for an electrical engineering course.
   - Engineering Physics – All physics or engineering physics courses which are prerequisites for later courses in the major must be completed with a “C-” or better. Also, an engineering physics major must have a G.P.A. of 2.00 for all 3000/4000 engineering courses.
   - Industrial Engineering – All required industrial engineering courses must be completed with an overall “C-” average.
   - Mechanical Engineering – All courses in mechanical engineering must be completed with an overall “C-” average. Some prerequisites for mechanical engineering courses require a “C-” or better.
   - Software Engineering – All required software engineering and computer science courses. SE majors must earn a “D” or better in all co-requisites, unless otherwise stipulated by the offering department.

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**GE Program Limit**

Once enrolled in Math 2640, a student must successfully complete the GE program requirements before accumulating 60 or more credits at UW-Platteville. Each repetition of a given course will be counted toward the 60-credit limit. With the exception of the GE core courses, credits earned at UW-Platteville prior to admission to GE will not be counted toward the 60-credit limit.

**Dismissal from Engineering**

Engineering majors who fail to meet the C.G.P.A. of their professional program within the 60-credit limit will be dismissed from engineering. Students who are dismissed from the university are also dismissed from engineering and must appeal to the university for reinstatement. A student who has been dismissed from engineering may not enroll in any engineering class during the fall or spring semesters.

**Transfer Credits**

1. The transfer of credits into any engineering program must be approved by the appropriate department chair. All transfer of credits must follow the specific requirements of the professional program that the student will be entering, including any specific grade requirement(s).

2. Pass/Fail of “D” grades are generally not transferable into engineering.

3. It is understood that students entering engineering with an Associate of Arts or Science degree from the UW-Colleges, a four-year UW System institution, or from the Illinois or Highland Community Colleges will have satisfied the general education requirements for UW-Platteville.

4. Students that transfer from programs that are not ABET accredited may be required to substantiate their expertise in the topics in question.

**For Additional Information**

Specific questions about the general engineering program may be directed to Abukhair Masoom, professor and chair, General Engineering Department, College of Engineering, Mathematics and Science, UW-Platteville, 1 University Plaza, Platteville WI 53818-3099; phone 608.342.1711; fax 608.342.1566; or e-mail masoom@uwplatt.edu.

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