

# ENGINEERING TRANSFER PROGRAM

Contact: Dr. Gregory Michaelson, P.E., Interim Associate Dean  
(michaelson@marshall.edu)

Marshall University offers an engineering transfer program that consists of three to four semesters of a professional engineering curriculum, including basic mathematics, science, and core engineering courses common to most undergraduate engineering programs. In order to complete the final courses of a specific engineering degree students must transfer to another institution (usually West Virginia University or West Virginia University Institute of Technology).

To qualify for admission a minimum Math ACT score of 24 (Math SAT of 560) and a composite score of 21 (SAT composite of 980) are required. However, a student with a composite 19 (SAT 900) and a Math ACT of 19-23 (MTH SAT 460-550) may be admitted as a pre-engineering major. Students admitted to pre-engineering must complete the following minimum requirements in order to declare engineering as a major:

- Overall College Grade Point Average of 2.0
- MTH 127 College Algebra-Expanded/MTH 130 College Algebra, (or equivalents) grade of C
- MTH 132 Precalculus with Sci Applica, (or equivalents) grade of C

In order to transfer into the engineering transfer program, whether from within Marshall University or from another institution, students must meet the Math ACT/SAT requirement or complete the requirements listed above. If transfer students do not meet the above requirements they may be admitted into pre-engineering with the same restrictions as listed above for program admission.

## Transfer to Baccalaureate Programs in Engineering

Administrative Bulletin No. 23 of the Board of Trustees establishes policies for transfer of students from pre-engineering programs to baccalaureate programs at West Virginia University and West Virginia University Institute of Technology.

## Policies and Practices for the Transfer Process

- A. Any student
1. who is a resident of West Virginia,
  2. who meets the admission standards for a receiving institution at the time they are admitted by the sending institution,
  3. who maintains a GPA of 2.0 or higher during the equivalent of four terms (64 credit hours) at a sending institution will be assured admission into a baccalaureate program in engineering at the receiving institution, provided the student has satisfactorily completed all prerequisite courses. Qualified students who have completed fewer than 64 credit hours at a sending institution will be considered for admission to a baccalaureate engineering program at a receiving institution in the same manner as the receiving institution's regular returning students. Students should consult the college

handbook of the desired receiving institution for admission requirements.

Students who have completed a pre-engineering program should have completed the following core of courses:

Code	Title	Credit Hours
	Calculus	12
	Chemistry	8
	Physics	8
	English	6
	Statics	3
	Computer Programming	2
	Graphics	2

- B. Any student
1. who is **not a resident** of West Virginia,
  2. who meets the non-resident admission standards for a receiving institution at the time they are admitted by the sending institution, and
  3. who maintains a GPA of 2.0 or higher during the institution will be assured admission into a baccalaureate program in engineering at a receiving institution, provided the student has satisfactorily completed all prerequisite courses. Qualified students who have completed fewer than 64 credit hours at a sending institution will be considered for admission to a baccalaureate engineering program at a receiving institution on a case-by-case basis.
- C. Any student who does not qualify under A or B above, but who nonetheless is admitted to a pre-engineering program at a sending institution, must be informed that there is no assurance that he or she will be admitted to a baccalaureate program in engineering at a receiving institution. These students will be admitted to the College of Engineering and to a curriculum if they have completed at least 8 hours of calculus, 8 hours of applicable physics or chemistry, and 4 hours of graphics and computer programming and one semester of freshman composition with an overall 2.5 GPA and a 2.5 GPA in math and science courses. Students who do not meet the minimum transfer requirements, but who demonstrate special aptitude for engineering studies, may request admission to a baccalaureate program in engineering at a receiving institution by written petition to the appropriate administrator at the receiving institution. Although these guidelines are designed to accommodate students who wish to transfer into a baccalaureate engineering program from an approved two-year pre-engineering program, differences in the range and scope of offerings at each institution cannot assure that a student will be able to complete the baccalaureate degree in all fields of engineering within a four-year period.

Any student who is admitted by transfer from a pre-engineering program at a sending institution will be treated by the receiving institution like the receiving institution's regular returning student. Access to student housing and other privileges at the receiving institution will be controlled by the usual offices, in accordance with the institution's standard practices.

All pre-engineering students at a sending institution will have an opportunity annually to consult with academic advisors from the receiving institutions to ensure adequate articulation of engineering program requirements.

The number of slots available in certain high demand programs at West Virginia University may be limited. In these cases, West Virginia University may invite qualified applicants to select another field.

 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

## Academic Plan

Each student should meet with his/her faculty advisor early in the program to develop an individual plan of study since requirements will vary for different professional schools, desired major, and academic preparation. However, the course sequences described below represent a typical plan of study for engineering transfer students planning to major in one of the major engineering branches: civil engineering (CE), chemical engineering (ChE), computer engineering (CpE), industrial engineering (IE), electrical engineering (EE), or mechanical engineering (ME). Students who have a Math ACT of less than 24 must take CHM 111 Foundations of Chemistry before CHM 211 Principles of Chemistry I.

Course	Title	Credit Hours
<b>First Year</b>		
<b>First Semester</b>		
MTH 229 	Calculus/Analytic Geom I (CT)	5
ENG 101 	Beginning Composition	3
CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
ENGR 103	Freshman Engineering Seminar	1
ENGR 104	The Engineering Profession	1
<b>Credit Hours</b>		<b>15</b>
<b>Second Semester</b>		
MTH 230 	Calculus/Analytic Geom II	4
ENGR 111	Engineering Computations	3
CHM 212  & CHM 218 	Principles Chemistry II and Principles of Chem Lab II <sup>1</sup>	5
ENGR 102	Introduction to CAD	2
Core II Humanities or Core II Social Science		3
<b>Credit Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>First Semester</b>		
MTH 231 	Calculus/Analytic Geom III	4
ENGR 213	Statics	3
PHY 211 	University Physics I	4
PHY 202 	General Physics I Laboratory	1
ENGR 201	Circuits I <sup>1</sup>	4
Select one of the following:		3
ENG 201 	Advanced Composition	
ENGR 222	Engr Cost Analysis & Economy <sup>1</sup>	
<b>Credit Hours</b>		<b>19</b>
<b>Second Semester</b>		
MTH 335	Ordinary Diff Equations	3

ENGR 214	Dynamics	3
PHY 213 	University Physics II	4
PHY 204 	General Physics 2 Laboratory	1
ENGR 222 or ENGR 219	Engr Cost Analysis & Economy <sup>1</sup> or Engineering Thermodynamics	3
ENGR 216 or EE 202	Mech of Deformable Bodies <sup>1</sup> or Circuits II	3
<b>Credit Hours</b>		<b>17</b>
<b>Total Credit Hours</b>		<b>68</b>

<sup>1</sup> See advisor; course not required by all disciplines.