

# Pre-Engineering Curriculum

## **Advisor: Associate Professor Stuart Hutton**

Lyon College offers several demanding programs to prepare students for an engineering degree. The 3-2 program, wherein students attend Lyon for three years, completing the core curriculum and all requirements for their particular major (usually mathematics), and then transfer to their engineering school of choice for the remaining two years. Students earn their degree from Lyon by transferring ABET-accredited engineering credit hours from a coherent engineering program as documented by the school catalog in order to satisfy Lyon graduation hours. Students will also receive an engineering degree from their school of choice following the completion of that school's individual requirements. Formal agreements exist between Lyon and the University of Arkansas, Missouri University of Science and Technology, and the University of Minnesota but entry into other schools is possible.

Pre-engineering students and the pre-engineering advisor work together to determine course schedules. The requirements and time frames may vary based upon student interest and preparation.

Lyon also offers the opportunity to receive a bachelor's degree from Lyon and a Master of Engineering degree from the University of Minnesota. This program involves four years at Lyon and, typically, two years at the University of Minnesota. Students may need to take several extra courses before proceeding through the graduate curriculum; the number of courses will vary by major and emphasis. Admission is not guaranteed.

## **NOTES**

\* Students may use MTH 210, CHM 110, PHY 240 and ECO 101 to satisfy core requirements.

\* Students who begin their mathematics with MTH 110 may have to spend an extra summer or year before transferring to an engineering school.

\* The language of the programming course must be C++.

\* EM 50, Engineering Mechanics Statics is not taught at Lyon. Arrangements should be made to complete this course at an ABET-accredited engineering school as required by the program of choice after completion of the physics sequence PHY 240, 241 and PHY 250, 251.

# Summary of Minimal Requirements

Item #	Title	Credits
MTH 210	Calculus I	4
MTH 220	Calculus II	4
MTH 230	Calculus III	4
MTH 300	Differential Equations	3
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1
PHY 250	Fundamentals of Physics II	3
PHY 251	Fundamentals of Physics II Laboratory	1
CSC 100	Introduction to Programming in C++	3
ECO 101	Principles of Economics I	3
ENG 101	English Composition I	3
ENG 102	English Composition II	3
	HIS 101 OR HIS 102	3
	Humanities or social science electives (12-15 credits)	12-15
EM 50	Engineering Mechanics Statics	3
	<b>Total Credits</b>	<b>61-64</b>

## HIS 101 OR HIS 102

Item #	Title	Credits
HIS 101	The United States I	3
HIS 102	The United States II	3

## Humanities or social science electives (12-15 credits)