SOFTWARE ENGINEERING

Requirements

Summary of graduation requirements for the software engineering major

To complete the major in software engineering a student must complete the following:

1. All required courses listed by number in the schedule of courses above:

Code	Title	Hours
CSSE 120	Introduction to Software Development	4
CSSE 132	Introduction to Systems Programming	4
CSSE 220	Object-Oriented Software Development	4
CSSE 230	Data Structures and Algorithm Analysis	4
CSSE 232	Computer Architecture I	4
CSSE 280	Introduction to Web Programming	4
CSSE 304	Programming Language Concepts	4
CSSE 332	Operating Systems	4
CSSE 333	Intro to Database Systems	4
CSSE 371	Software Requirements Engineering	4
CSSE 372	Software Project Management	4
CSSE 373	Formal Methods in Specification and Design	4
CSSE 374	Software Design	4
CSSE 375	Software Construction and Evolution	4
CSSE 376	Software Quality Assurance	4
CSSE 477	Software Architecture	4
CSSE 497	Senior Capstone Project I	4
CSSE 498	Senior Capstone Project II	4
CSSE 499	Senior Capstone Project III	4
ECE 233	Introduction to Digital Systems	4
MA 111	Calculus I	5
MA 112	Calculus II	5
MA 113	Calculus III	5
MA 221	Matrix Algebra & Differential Equations I	4
MA 276	Introduction to Proofs	4
MA 374	Combinatorics	4
MA 381	Introduction to Probability with Applications to Statistics	4
PH 111	Physics I	4
PH 112	Physics II	4
CHEM 111	General Chemistry I	3
CHEM 111L	General Chemistry I Lab	1
HUM H190	First-Year Writing Seminar	4
ENGL H290	Technical & Professional Communication	4
RHIT 100	Foundations for Rose-Hulman Success	1

2. Eight credits of additional software engineering courses numbered between 300 and 492 and designated as software engineering electives. The student's academic advisor must approve the course used to satisfy this requirement. Use of software engineering courses numbered 490 through 492 to fulfill this requirement must be approved by the department head. Credits used to satisfy any requirements for a minor or secondary major pursued by a student cannot also be used to satisfy SE elective requirements for the student's primary or secondary major in Software Engineering. Credits used by a student pursuing a secondary major in SE that are intended to satisfy the SE elective requirement can only be used to satisfy technical or free elective requirements within the student's primary major or not used towards any requirements within the primary major.
3. Four additional credits of technical electives, consisting of any courses in biology, chemistry, engineering (except software engineering and engineering management), geology, mathematics, biomathematics, or physics.
4. Four additional credits of courses offered by the Department of Mathematics excluding MA 351 Problem Solving Seminar MA 356 Problem Solving Seminar. The student's academic advisor must approve the coursesused to satisfy this requirement.
5. Four credits of science electives, which can be any CHEM, GEOL, PH, or BIO courses not already required for the software engineering major.
6. Twenty-eight credits of additional courses offered by the Department of Humanities and Social Sciences; the distribution of these courses must meet the requirements of that department.
7. Twelve credits of free elective courses.These courses must have the approval of the student's academic advisor. Free electives may be selected from any Rose-Hulman course.
8. A total of 192 credits.