INTERNATIONAL COMPUTER SCIENCE

Requirements

Summary of Graduation Requirements for the International Computer Science Major

HSS electives must be distributed as required by HSS. Science elective is any CHEM, PH, GEOL, or BIO course(s) totaling at least 4 credits.

To complete the major in international computer science a student must complete the following:

1. All required courses listed by number, symbol, or name in the schedule of courses above:

Code	Title	Hours
CSSE 120	Introduction to Software Development	4
CSSE 132	Introduction to Systems Programming	4
CSSE 212	MSPP – Multicore Systems Programming and Performance	4
CSSE 220	Object-Oriented Software Development	4
CSSE 230	Data Structures and Algorithm Analysis	4
CSSE 232	Computer Architecture I	4
CSSE 304	Programming Language Concepts	4
CSSE 333	Intro to Database Systems	4
CSSE 473	Design and Analysis of Algorithms	4
or MA 473	Design & Analysis of Algorithms	
CSSE 474	Theory of Computation	4
or MA 474	Theory of Computation	
CSSE 494	Senior Thesis I	4
CSSE 495	Senior Thesis II	4
CSSE 496	Senior Thesis III	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 371	Linear Algebra I	4
or MA 373	Applied Linear Algebra for Engineers	
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
HUM H190	First-Year Writing Seminar	4
ENGL H290	Technical & Professional Communication	4
GER L111	German Language & Culture I	4
GER L112	German Language & Culture II	4
GER L113	German Language & Culture III	4
RHIT 100	Foundations for Rose-Hulman Success	1
CSSE 371	Software Requirements Engineering	4
CSSE 400	CSSE Seminar	4
CSSE 225	Programming 3	4
ECE 233	Introduction to Digital Systems	4
CSSE 374	Software Design	4
CSSE 332	Operating Systems	4
CSSE 432	Computer Networks	4

2. Eight credits of additional computer science courses (Special Subject A (Module I) and Special Subject A (Module II)) numbered between 200 and 492. No more than four credits may be at the 200 level, and none of the credits may be from CSSE 372 Software Project Management, CSSE 373 Formal Methods in Specification and Design, CSSE 375 Software Construction and Evolution, CSSE 376 Software Quality Assurance, and CSSE 477 Software Architecture. The students academic advisor must approve the courses to satisfy this requirement. (Use of computer science courses numbered 490 through 492 to fulfill this requirement must be approved by the department head).
3. Four credits of science electives, which can be any CHEM, PH, BIO, or GEOL courses not already required for the international computer science major.
4. Twelve credits of additional courses offered by the Department of Humanities and Social Sciences and/or appropriate humanities or social science courses offered at Hochschule Ulm. The distribution of these courses must meet the requirements of the Department of Humanities and Social Sciences at Rose-Hulman.
5. Sixteen credits of free elective courses. These courses must have the approval of the student's academic adviser. Free electives may be selected from any Rose-Hulman course.
6. A total of 192 credits.

See Computer Science for course descriptions (https://www.rose-hulman.edu/academics/course-catalog/current/programs/Computer%20Science/course-descriptions.html).