OPTICAL ENGINEERING

Requirements
Optical Engineering
Summary of Graduation Requirements for Optical Engineering

1. All the courses listed above by the number.
2. The program must be approved by the advisor.
3. A technical elective is any RHIT course in biology, biomathematics, chemistry, computer science, engineering, mathematics, or physics

Classes by subjects

Code	Title	Hours
Optics Coursework		50
Physics Coursework		16
Freshmen Physics, Chemistry and Mathematics Coursework		47
Humanities and Social Science (Standard requirement)		36
Electives (8 credits engineering electives, and 12 credits of free electives) [1]		20
Miscellaneous		25
Total Hours		**194**

[1] Cannot include ECE 340 Electromagnetic Fields

Physics Classes

Code	Title	Hours
PH 235	Many-Particle Physics	4
PH 255	Foundations of Modern Physics	4
PH 292	Physical Optics	4
PH 316	Electric & Magnetic Fields	4
Total Hours		**16**

Freshman Physics, Math and Chemistry Classes

Code	Title	Hours
PH 111	Physics I	4
PH 112	Physics II	4
PH 113	Physics 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 222	Matrix Algebra & Differential Equations II	4
MA 381	Introduction to Probability with Applications to Statistics	4
CHEM 111	General Chemistry I	3
CHEM 111L	General Chemistry I Lab	1
CHEM 113	General Chemistry II	3
CHEM 113L	General Chemistry II Laboratory	1
Total Hours		**47**

Miscellaneous and Engineering Classes

Code	Title	Hours
RHIT 100	Foundations for Rose-Hulman Success	1
EM 104	Graphical Communications	2
ME 123	Computer Programming	4
EM 103	Introduction to Design	2
ES 213	Electrical Systems	3
ES 213L	Electrical Systems Lab	1
Total Hours		**13**

Minor

The course requirements and advisors for Minors in Optical Engineering, Solid State Physics/Materials Science, and Electronics are listed below. Successful completion of a Minor is indicated on the student's grade transcript. A student interested in pursuing a minor should consult with the appropriate advisor.