

CHEMISTRY**Minor in Chemistry**

~~(Grade of C or better is required in all chemistry courses)~~

~~Prerequisite Courses~~~~CHEM 1211, 1212 Principles of Chemistry I, II~~~~CHEM 2810 Quantitative Analysis~~~~Minor Concentration~~~~Includes four hours from CHEM 2810~~~~4~~~~CHEM 3411 Organic Chemistry I~~~~4~~~~Select one 4-hour and one 3- or 4-hour course from~~~~CHEM 3412, 3721, 3722, 3810, 4210, 4551, 4840~~~~7-8~~~~All courses must be approved by the Chair of the~~~~Department of Chemistry and Physics.~~~~(Prior approval is recommended)~~~~Total Hours for the Chemistry Minor~~~~15-16~~**ENGINEERING****Pre-Engineering Curriculum**

Curriculum includes most of courses required of freshmen and sophomores at colleges of engineering.

Science and mathematics courses for engineering programs at University System of Georgia institutions include:

Core Area A

MATH 2011 Calculus and Analytic Geometry I

4

Core Area D

MATH 2012 Calculus II

4

Recommended: CHEM 1211, 1212 Principles of Chemistry I, II

8

Core Area F

PHYS 2211, 2212 Principles of Physics I, II

8

MATH 2013 Calculus III

4

MATH 3020 Differential Equations

3

Also recommended: CSCI 2060 Computer Science

Programming for Science and Engineering

3

The remaining courses for Core Areas A through E should be selected from courses listed under Core Curriculum. The student should refer to the catalog of the Georgia Institute of Technology or of the institution to which one intends to transfer.

PHYSICS**Bachelor of Science with a Major in Physics**

This program prepares the student for graduate study in physics and provides for job entry level as a physicist.

(Grade of C or better is required in all physics courses.)

Core Curriculum Areas A-E for Science Majors

42

Core Curriculum Area F

18

PHYS 2211, 2212 Principles of Physics I, II

8

MATH 2011, 2012, 2013 Calculus I one hour, II, III

9

CSCI 1301 or 2060 Programming for Science and Engineering

1

Non-Core Courses

6-17

MATH 2011 (if not in D, transfer student)

0-3

CSCI 1301 or 2060 (three hours from F)

3

CHEM 1211, 1212 Principles of Chemistry I, II (if not in D)

0-8

MATH 3020 Differential Equations

3

Major Concentration

38

PHYS 3011, 3012 Electronics I, II

8

PHYS 3040 Advanced Optics

4

PHYS 3251, 3252 Theoretical Mechanics I, II

6

PHYS 4051, 4052 Electromagnetic Theory I, II

6

PHYS 4310 Thermal Physics

3

PHYS 4530 Mathematical Methods of Physics

3

PHYS 4511, 4512 Quantum Physics I, II

8

Electives

6-17

Physical Education

5

Satisfactory Physics Oral Exam Departmental Requirement

Physics Written Exit Exam Institutional Requirement

Total Hours for Degree

125

PHYSICS/MATHEMATICS**Bachelor of Science
with a Major in Physics/Mathematics
with Certification in Secondary Education**

Core Curriculum Areas A-E Science Majors	42
Core Curriculum Area F (Grade C or better in all these courses)	18
PHYS 2211, 2212 Principles of Physics I, II	8
MATH 2011, 2012, 2013 Calculus I one hour, II, III	9
CSCI 1301 Principles of Computer Programming I	1
Lower Level Requirements (Grade C or better in all these courses)	12
CHEM 1211 & 1212 (hours not taken in Areas D)	0
CSCI 1301 (3 hours from Area F)	3
EDUC 2101 Introduction to the Historical and Philosophical Foundations of American Education	3
EDUC 2102 Human Growth and Development	3
SPED 2000 Teaching Students w/Disabilities in General Education Classrooms	3
*EDUC & SPED courses should be taken before junior year	
Physics Concentration: (Grade of C or better is required in all of these courses)	21
PHYS 3011 Electronics I	4
PHYS 3040 Advanced Optics	4
PHYS 3251 Theoretical Mechanics I or PHYS 4051 Electromagnetic Theory I	3
PHYS 4511 Quantum Physics I	4
Select two courses from 3000 & 4000 level Physics	6
Mathematics Concentration: (Grade C or better in all these courses)	21
MATH 3020 Differential Equations	3
MATH 3030 Symbolic Logic and Set Theory	3
MATH 3280 Linear Algebra	3
MATH 4211 Modern Abstract Algebra I	3
MATH 4251 Probability and Statistics I	3
MATH 4310 Modern Geometry	3
MATH 4410 History of Mathematics	3
Secondary Teacher Certification (Grade of C or better is required in all these courses)	25
SCED 4101 Secondary School Student: Implications for Curriculum, Instruction, Assessment and Management	3
SCED 4102 Secondary School Context and Curriculum Coherence and Classroom Management	3
SCED 4301 Secondary Math Pedagogy I	3
SCED 4401 Science Pedagogy I	3
SCED 4901 Secondary Apprenticeship/Seminary	13
Electives (to handle transfers within the University System)	0
Physical Education	5
Total Hours for the Degree	144

PHYSICS**Minor in Physics**

(Grade of C or better is required in all Physics courses)

Prerequisite Courses

PHYS 2211, 2212 Principles of Physics I, II
or PHYS 1111, 1112 Introductory Physics I, II
MATH 2012 Calculus II

Minor Concentration

Include four hours from MATH 2012 4
Select three or four courses 11 hours minimum
from approved Physics Major Concentration 11-12

All courses must be approved by the Chair of
the Department of Chemistry and Physics.

(Prior approval is recommended)

Total Hours for the Physics Minor 15-16

