

ELECTIVES – If required to reach 124 minimum

**THIS IS A WORKSHEET ONLY AND REPRESENTS THE REQUIREMENTS IN EFFECT AT THE TIME CREATED.
MAJOR REQUIREMENTS AND OFFERINGS MAY CHANGE AT THE DISCRETION OF THE DEPARTMENT**

Advisor: _____

Name: _____

Minimum graduation credits: 124

Catalog: 2010 – 2011

Minimum gpa in major: _____

Transfer credits: _____

**PHYSICS
Computational Physics Concentration**

**CORE REQUIREMENTS
MINIMUM OF 20 CREDITS AT GORDON**

COURSES IN MAJOR

COMMON COURSES (36 credits)

COR 107	The Great Conversation	4	_____
BCM 101	Old Testament	4	_____
BCM 103	New Testament	4	_____
PHI 118	The Examined Life	4	_____
HIS 121	Historical Perspectives	4	_____
NSM 202	Scientific Enterprise – <i>waived by major</i>	4	_____
BCM 308	Christian Theology	4	_____

FOREIGN LANGUAGE

_____	(Begin Lang I)	4	_____
_____	(Begin Lang II)	4	_____

PHYSICAL EDUCATION

PED _____	LaVida or Discovery (Concepts of Wellness by petition only)	0	_____
PED _____	(PE Activity)	0	_____
PED _____	(PE Activity)	0	_____

THEMATIC COURSES (20 credits)

*At least one must be fulfilled with an approved literature course;
minimum 3 courses at Gordon.*

Natural World *Can be fulfilled with MAT141*

_____	_____	4	_____
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Human Person

_____	_____	4	_____
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Aesthetic Sensibilities

_____	_____	4	_____
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Civic Responsibility

_____	_____	4	_____
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Global Understanding*

_____	_____	0-4	_____
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*Global Understanding may be fulfilled in a variety of ways through study abroad, approved missions trips, or appropriate courses.

REQUIRED COURSES

PHY 121	Intro Physics I	4	_____
PHY 122	Intro Physics II	4	_____
PHY 130	First Year Phys Sem	1	_____
PHY 214	Math Meth Phys I	4	_____
PHY 236	Modern Physics	4	_____
PHY 314	Mechanics	4	_____
PHY 339	Elect & Magn I	4	_____
PHY 391	Junior Sem I	0	_____
PHY 392	Junior Sem II	0	_____
PHY 471	Research I	1-4	_____
PHY 472	Research II	1-4	_____
PHY 491	Senior Sem I	1	_____
PHY 492	Senior Sem II	1	_____
MAT 141	Calculus I	4	_____
MAT 142	Calculus II	4	_____
MAT 223	Calculus III	2	_____
MAT 225	Differential Equations	4	_____

One of the Following Sequences:

Chemistry:			
CHE 111	Principles of Chemistry I	4	_____
CHE 112	Principles of Chemistry II	4	_____

Computer Science:

CPS 121	Introduction to Programming	4	_____
CPS 122	Object-Oriented Software Development	4	_____

Concentration Courses

2 courses numbered above PHY224:

PHY _____	(Physics elective)	4	_____
PHY _____	(Physics elective)	4	_____

Math/Comp Sci Courses (16 credits)

PHY 313	Mathematical Methods in Physics II	4	_____
CPS 211	Object-Oriented Software Dvpt	4	_____
CPS 212	Computational Structures and Algorithms	4	_____
CPS 311	Computer Organization	4	_____
CPS 312	Computer Systems II	4	_____
CPS 323	Programming Languages	4	_____
MAT 229	Discrete Mathematics for Comp Sci	2	_____
MAT 231	Transition to Higher Mathematics	2	_____
MAT 232	Linear Algebra	4	_____
MAT 318	Probability	4	_____
MAT 319	Statistics	4	_____
MAT 335	Algebraic Structures	4	_____
MAT 342	Numerical Analysis	4	_____
MAT 353	Real Analysis	4	_____

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[illegible]

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Name: _____

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Transfer credits:

PHYSICS
3-2 Engineering Program

CORE REQUIREMENTS
MINIMUM OF 20 CREDITS AT GORDON

COURSES IN MAJOR

COMMON COURSES (36 credits)

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BCM 101	Old Testament	4
BCM 103	New Testament	4
PHI 118	The Examined Life	4
HIS 121	Historical Perspectives	4
NSM 202	Scientific Enterprise – <i>waived by major</i>	
BCM 308	Christian Theology	4

FOREIGN LANGUAGE

____ (Begin Lang I) 4 _____

____ (Begin Lang II) 4 _____

PHYSICAL EDUCATION

PED ____ LaVida or Discovery	0 ____
(Concepts of Wellness by petition only)	
PED ____ (PE Activity)	0 ____
PED ____ (PE Activity)	0 ____

THEMATIC COURSES (20 credits)

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Natural World *Can be fulfilled with MAT141*

Human Person 4

Aesthetic Sensibilities 4

Civic Responsibility 4

Global Understanding*	0-4
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*Global Understanding may be fulfilled in a variety of ways through study abroad, approved missions trips, or appropriate courses.

REQUIRED COURSES

PHY 121	Intro Physics I	4
PHY 122	Intro Physics II	4
PHY 125	Intro to Engineering and Applied Sciences	2
PHY 214	Mathematical Methods in Physics I	4
PHY 216	Statics	4
PHY 225	Electronics	4
PHY 236	Modern Physics	4
PHY 314	Mechanics	4
PHY 328	Strength of Materials	4
CHE 111	Principles of Chemistry I	4
CPS 121	Introduction to Programming	4
MAT 141	Calculus I	4
MAT 142	Calculus II	4
MAT 223	Calculus III	2
MAT 225	Differential Equations	4

ELECTIVES

[illegible]