

**SUGGESTED PROGRAM OF STUDY**  
**Bachelor of Science - Major in Chemistry<sup>1</sup> General Track**  
with AMTH 111 Placement APHY201/202 2011/12 bulletin

**First Year**

**Fall Semester**

ACHM 111	(General Chem. I)	(4)_____
AMTH 111	(Pre-Calc. I)	(3)_____
AEGL 101	(Composition) <sup>2</sup>	(3)_____
ABIO 121	(Biology I)	(4)_____
AFCI 101	(Critical Inquiry)	(1)_____

15 credit hours

**Spring Semester**

ACHM 112	(General Chem. II)	(4)_____
AMTH 112	(Pre-Calc. II)	(3)_____
AEGL 102	(Comp. and Lit.) <sup>2</sup>	(3)_____
History of Civ.	(either AHST 101 or 102)	(3)_____
Humanities or Social Science <sup>3</sup>		(3)_____

16 credit hours

**Second Year**

**Fall Semester**

ACHM 331	(Org Chem. I)	(3)_____
ACHM 331L	(Org. I Lab)	(1)_____
APHY 201	(Gen. Physics I)	(4)_____
AMTH 141	(Calc. I)	(4)_____
Amer. Gov't (AHST 201 or 202 or APLS 201)		(3)_____

15 credit hours

**Spring Semester**

ACHM 332	(Org Chem. II)	(3)_____
ACHM 332L	(Org. Lab II)	(1)_____
APHY 202	(Gen. Physics II) <sup>4</sup>	(4)_____
AMTH 142	(Calc. II)	(4)_____
ACHM 310	(Research Meth.)	(1)_____
Communicat. (ACOM 201 or 241)		(3)_____

16 credit hours

**Summer I/II\***

Humanities/ Social Science<sup>3</sup> or Cogante\* (3/4)\_\_\_\_\_

**Third Year**

**Fall Semester**

ACHM 321	(Quant. Analysis)	(3)_____
ACHM 321 L	(Quant. Anal. Lab)	(1)_____
ACHM 541	(Phys. Chem I)	(3)_____
ACHM 541 L	(Phys Chem I Lab)	(1)_____
ABIO 541	(Biochem)	(3)_____
Second Language 1 <sup>5</sup>		(4)_____

15 credit hours

**Spring Semester**

ACHM 311	(Intro Inorg. Chem.)	(3)_____
ACHM 311L	(Intro Inorg. Chm Lab)	(1)_____
ACHM 542	(Phys. Chem II)	(3)_____
ACHM 542L	(Phys Chem. II Lab)	(1)_____
Humanities/Soc. Science/Cognate* <sup>3</sup>		(3/4)_____
Second Language 2 <sup>5</sup>		(4)_____

15/16 credit hours

**Fourth Year**

**Fall Semester**

ACHM 511	(Adv. Inorg. Chem)	(3)_____
ACHM 511L	(Adv. Inorg. Ch. Lab)(1)	_____
ACHM 499	(Senior Res.) <sup>6</sup>	(2)_____
Cognate/Minor*		(3/4)_____
Humanities or Soc. Sci <sup>3</sup> or Cogante*		(3)_____
Humanities or Social Science <sup>3</sup>		(3)_____

15/16 credit hours

**Spring Semester**

ACHM 522	(Inst. Anal.)	(5)_____
Humanities or Social Science <sup>3</sup>		(3)_____
ACHM 499	(Senior Res) <sup>6</sup>	(1/2)_____
Cognate/Minor*		(3/4)_____
Cognate/Minor*		(3/4)_____

15/17 credit hours

- 1 - A grade of C or higher is required in all chemistry courses counting toward the degree. Students placing in Mathematics 108 or below will successfully complete these courses before enrolling in any chemistry course.
- 2 - Students must complete English 101/102 with a grade of C or better in order to fulfill general education requirements. Students must complete AEGL 102 with a grade of C or better before taking other English courses and for any course to count as Writing Intensive including ACHM 541L, 542L, and 511L.
- 3 - At least three (3) credit hours of the degree must be in non-Western studies.
- 4 - APHY 212 can be counted toward a cognate.
- 5 - Two (2) semesters of the same language are required. (July 2012 Revised)
- 6 - Completion of a thesis and seminar on the research project are required for graduation.

\* The cognate requirement can be completed with either 4 three credit courses including at least one math/humanities/cognate taken during the summer: OR 3 four credit courses and no summer school (e.g. AMTH 241/242, APHY 212, ABIO 242). A partial list of 4 credit cognates includes; AMTH 241, APHY 212, APLS 301, AHST 300, ASCY 310, ABIO 242, several 300+ ABIO courses including ABIO 302/312/315/316/320/325/330.

**SUGGESTED PROGRAM OF STUDY**  
**Bachelor of Science - Major in Chemistry<sup>1</sup> General Track**  
with AMTH 111 Placement APHY211/212 2011/12 bulletin

**First Year**

**Fall Semester**

ACHM 111	(General Chem. I) <sup>1</sup>	(4)_____
A EGL 101	(Composition) <sup>2</sup>	(3)_____
AMTH 111	(Pre-Calc. I)	(3)_____
AMTH 112	(Pre-Calc. II)	(3)_____
Humanities or Social Science <sup>3</sup>		(3)_____

16 credit hours

**Spring Semester**

ACHM 112	(General Chem. II)	(4)_____
A EGL 102	(Comp. and Lit.) <sup>2</sup>	(3)_____
AMTH 141	(Calc. I)	(4)_____
ABIO 121	(Biology I)	(4)_____
AFCI 101	(Critical Inquiry)	(1)_____

16 credit hours

**Second Year**

**Fall Semester**

ACHM 331	(Org Chem. I)	(3)_____
ACHM 331L	(Org. I Lab)	(1)_____
APHY 211	(Physics I)	(4)_____
AMTH 142	(Calc. II)	(4)_____
History of Civ. (either AHST 101 or 102)		(3)_____

15 credit hours

**Spring Semester**

ACHM 332	(Org Chem. II)	(3)_____
ACHM 332L	(Org. Lab II)	(1)_____
APHY 212	(Physics II) <sup>*4</sup>	(4)_____
Amer. Gov't (AHST 201 or 202 or APLS 201)		(3)_____
ACHM 310	(Research Meth.)	(1)_____
Communicat.	(ACOM 201, 241, or 342)	(3)_____

15 credit hours

**Third Year**

**Fall Semester**

ACHM 321	(Quant. Analysis)	(3)_____
ACHM 321 L	(Quant. Anal. Lab)	(1)_____
ACHM 541	(Phys. Chem I)	(3)_____
ACHM 541 L	(Phys Chem I Lab)	(1)_____
ABIO 541	(Biochem)	(3)_____
Second Language 1 <sup>5</sup>		(4)_____

15 credit hours

**Spring Semester**

ACHM 311	(Intro Inorg. Chem.)	(3)_____
ACHM 311L	(Intro Inorg. Chm Lab)	(1)_____
ACHM 542	(Phys. Chem II)	(3)_____
ACHM 542L	(Phys Chem. II Lab)	(1)_____
Humanities or Social Science <sup>3</sup>		(3)_____
Second Language 2 <sup>5</sup>		(4)_____

15 credit hours

**Fourth Year**

**Fall Semester**

ACHM 511	(Adv. Inorg. Chem)	(3)_____
ACHM 511L	(Adv. Inorg. Ch. Lab)	(1)_____
ACHM 499	(Senior Res.) <sup>6</sup>	(2)_____
Cognate/Minor*		(3/4)_____
Humanities or Social Science <sup>3</sup>		(3)_____
Humanities or Social Science <sup>3</sup>		(3)_____

15/16 credit hours

**Spring Semester**

ACHM 522	(Inst. Anal.)	(5)_____
Humanities or Social Science <sup>3</sup>		(3)_____
ACHM 499	(Senior Res) <sup>6</sup>	(1-2)_____
Cognate/Minor*		(3/4)_____
Cognate/Minor*		(3)_____

15/17 credit hours

1 - A grade of C or higher is required in all chemistry courses counting toward the degree. Students placing in Mathematics 108 or below will successfully complete these courses before enrolling in any chemistry course.

2 - Students must complete English 101/102 with a grade of C or better in order to fulfill general education requirements. Students must complete A EGL 102 with a grade of C or better before taking other English courses and for any course to count as Writing Intensive including ACHM 541L, 542L, and 511L.

3 - At least three (3) credit hours of the degree must be in non-Western studies.

4 - APHY 212 can be counted toward a cognate.

5 - Two (2) semesters of the same language are required.

6 - Completion of a thesis and seminar on the research project are required for graduation.

\* The cognate requirement can be completed with either 4 three credit courses including at least one math/humanities/cognate taken during the summer: OR 3 four credit courses and no summer school (e.g. AMTH 241/242, APHY 212, ABIO 242). A partial list of 4 credit cognates includes; AMTH 241/242, APHY 212, APLS 301, AHST 300, ASCY 310, ABIO 242, several 300+ ABIO courses including ABIO 302/312/315/316/320/325/330.

(July 2012 Revised)

## SUGGESTED PROGRAM OF STUDY

### Bachelor of Science - Major in Chemistry<sup>1</sup> General Track

with AMTH 111 Placement      APHY211/212 Summer School\*      2011/12 bulletin

#### First Year

##### Fall Semester

ACHM 111	(General Chem. I) <sup>1</sup>	(4)_____
AMTH 111	(Pre-Calc. I)	(3)_____
AEGL 101	(Composition) <sup>2</sup>	(3)_____
ABIO 121	(Biology I)	(4)_____
AFCI 101	(Critical Inquiry)	(1)_____

15 credit hours

##### Spring Semester

ACHM 112	(General II)	(4)_____
AMTH 112	(Pre-Calc. II)	(3)_____
AEGL 102	(Comp. and Lit.) <sup>2</sup>	(3)_____
History of Civ.	(either AHST 101 or 102)	(3)_____
Humanities or Social Science <sup>3</sup>		(3)_____

16 credit hours

##### Summer I/II\*

AMTH 141	(Calc. 1)	(4)_____
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#### Second Year

##### Fall Semester

ACHM 331	(Org Chem. I)	(3)_____
ACHM 331L	(Org. I Lab)	(1)_____
AMTH 142	(Calc. II)	(4)_____
APHY 211	(Physics I)	(4)_____
Amer. Gov't	(AHST 201 or 202 or APLS 201)	(3)_____

15 credit hours

##### Spring Semester

ACHM 332	(Org Chem. II)	(3)_____
ACHM 332L	(Org. Lab II)	(1)_____
ACHM 310	(Research Meth.)	(1)_____
APHY 212	(Physics II) <sup>*4</sup>	(4)_____
Communicat.	(ACOM 201 or 241)	(3)_____
Second Language 1 <sup>5</sup>		(4)_____

16 credit hours

#### Third Year

##### Fall Semester

ACHM 541	(Phys. Chem I)	(3)_____
ACHM 541 L	(Phys Chem I Lab)	(1)_____
ACHM 321	(Quant. Analysis)	(3)_____
ACHM 321 L	(Quant. Anal. Lab)	(1)_____
ABIO 541	(Biochem)	(3)_____
Second Language 2 <sup>5</sup>		(4)_____

15 credit hours

##### Spring Semester

ACHM 542	(Phys. Chem II)	(3)_____
ACHM 542L	(Phys Chem. II Lab)	(1)_____
ACHM 311	(Intro Inorg. Chem.)	(3)_____
ACHM 311L	(Intro Inorg. Chm Lab)	(1)_____
Humanities or Social Science <sup>3</sup>		(3)_____
Cognate/Minor*		(3/4)_____

14/15 credit hours

#### Fourth Year

##### Fall Semester

ACHM 511	(Adv. Inorg. Chem)	(3)_____
ACHM 511L	(Adv. Inorg. Ch. Lab)	(1)_____
ACHM 499	(Senior Res.) <sup>6</sup>	(2)_____
Cognate/Minor*		(3/4)_____
Humanities or Social Science <sup>3</sup>		(3)_____
Humanities or Social Science <sup>3</sup>		(3)_____

15/16 credit hours

##### Spring Semester

ACHM 522	(Inst. Anal.)	(5)_____
Humanities or Social Science <sup>3</sup>		(3)_____
ACHM 499	(Senior Res) <sup>6</sup>	(1-2)_____
Cognate/Minor*		(3/4)_____

12/14 credit hours

- 1 - A grade of C or higher is required in all chemistry courses counting toward the degree. Students placing in Mathematics 108 or below will successfully complete these courses before enrolling in any chemistry course.
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- 3 - At least three (3) credit hours of the degree must be in non-Western studies.
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- 5 - Two (2) semesters of the same language are required. (July 2012 Revised)
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