

College of Engineering, Forestry, and Natural Sciences  
Secondary Education - Physics Bachelor of Science in Education

2014-2015

2013-2014 Undergraduate Catalog

Four Year Progression Plan

Sample Progression Plans are for planning purpose only. see the catalog for official details.

Year 1 - Fall		
Choose one of the options below:		
Option: A		
AST 160	Introduction To Astronomy	3
AST 161	Intro To Observational Astronomy	1
Option: B		
AST 183	Life In The Universe	3
AST 184L	Life In The Universe Lab	1
MAT 136	Calculus I	4
TSM 101	Step 1	1
PHY 103	First-year Seminar	1
ENG 105	Critical Read/Writing In Univ	4
LIBST COURSE	Liberal Studies Course	3

Year 1 - Spring		
Choose one of the options below:		
Option: A		
PHY 171	Univ Physics I For Physicists	5
Option: B		
PHY 161	University Physics I	4
MAT 137	Calculus II	4
TSM 102	Step 2	1
LS/DIV COURSE	Liberal Studies/Diversity Course	3
LIBST COURSE	Liberal Studies Course	3

Year 2 - Fall		
PHY 262	University Physics II	3
PHY 262L	University Physics II Lab	1
MAT 238	Calculus III	4
Choose one of the options below:		
Option: A		
<del>CHM 151</del>	<del>General Chemistry I</del>	<del>4</del>
<del>CHM 151L</del>	<del>General Chemistry I Lab</del>	<del>1</del>
Option: B		
<del>MAT 236</del>	<del>Discrete Mathematics</del>	<del>3</del>
Option: C		
<del>STA 270</del>	<del>Applied Statistics</del>	<del>3</del>
Option: D		
<del>STA 275</del>	<del>Statistical Analysis</del>	<del>3</del>
TSM 300	Knowing And Learning	3
Apply to NAJTeach Program		

Year 2 - Spring		
PHY 263	University Physics III	3
PHY 264	Electronics For Science Studis	3
Choose one of the options below:		
Option: A		
<del>CHM 152</del>	<del>General Chemistry II</del>	<del>3</del>
<del>CHM 152L</del>	<del>General Chemistry II Lab</del>	<del>1</del>
Option: B		
<del>MAT 185</del>	<del>Functions, Applications &amp; Expl</del>	<del>3</del>
TSM 350	Classroom Interactions	3
GE COURSE	General Elective Course	3

Year 3 - Fall		
Choose one of the options below:		
Option: A		
<del>CHM 293</del>	<del>Lab Safety And Supervision</del>	<del>1</del>
Option: B		
<del>MAT 265</del>	<del>Modern Geometry</del>	<del>3</del>
Option: C		
<del>MAT 320W</del>	<del>Foundations Of Mathematics</del>	<del>3</del>
PHI 359	Philosophy Of Science	3
BME 200	Intro Struct English Immersion	3
LS/DIV COURSE	Liberal Studies/Diversity Course	3
TSM 404	Research Methods	3

Year 3 - Spring		
PHY 333W	Advanced Lab	3
PHY 361	Modern Physics	3
Choose one of the options below:		
Option: A		
<del>CHM 230</del>	<del>Fundamental Organic Chemistry</del>	<del>3</del>
<del>CHM 230L</del>	<del>Fundamental Organic Chemistry Lab</del>	<del>1</del>
Option: B		
<del>MAT 401</del>	<del>Math Tech Sec Sch Math I</del>	<del>3</del>
Option: C		
<del>MAT 402</del>	<del>Math Tech Sec Sch Math II</del>	<del>3</del>
LIBST COURSE	Liberal Studies Course	3
GE COURSE	General Elective Course	4
Attempt AEPA Physics Subject Knowledge Test		
Apply to Apprentice Teaching		

Year 4 - Fall		
BME 437	Sci Methods Secondary School	3
TSM 450	Project-based Instruction	3
LIBST COURSE	Liberal Studies Course	3
GE COURSE	General Elective Course	3
GE COURSE	General Elective Course	4
Submit graduation application this term.		

Year 4 - Spring		
Choose one of the options below:		
Option: A		
TSM 495C	Apprentice Teaching	12
Option: B		
ECI 495C	Supervised Teaching, Secondary	12
TSM 496C	Apprentice Teaching Seminar	1

University Requirements Specified by Major	
Foundation Requirements: English (FNRQ:ENG)	ENG 105 (4)
Foundation Requirements: Math (FNRQ:MAT)	MAT 137 (4)
Aesthetic and Humanistic Inquiry (AHI)	PHI 359 (3)
Science/Applied Science (SAS/LAB)	AST 180 (3), AST 181 (1), AST 183 (3), AST 184L (1), MAT 136 (4)

- ① {
- PHY 262 University Physics II (3)
  - PHY 262L University Physics II Lab (1)
  - or
  - PHY 172 Univ Physics II for Physicists (5)
- ② MAT 239 Differential Equations (3)
- ③ Concentration, Minor or General Elective Courses (3-4)

## PROGRAM INFORMATION

A minimum of 120 units are required for this degree. No more than one D is allowed in the major & emphasis requirements.

\* PHY 171 is recommended. *and PHY 172 are strongly preferred*

\* PSY 101 (SPW) recommended. *PHY 103 recommended*

\*\* Major ~~electives include selecting either the chemistry or math concentration (12-14 units);~~ *Optional Concentration:*

- Chemistry: CHM 151, 151L; CHM 152, 152L; CHM 295; CHM 230, 230L *(14 units)*
- ~~Mathematics: MAT 226, STA 270 or STA 275; MAT 185; MAT 401 or 402; MAT 365 or 320W~~

\*\*\* ~~MAT 238 is not a major requirement but is a prerequisite for PHY 361~~

\*\*\*\* In order to be approved for student teaching, you must complete these five courses, earning a grade of B or better in four of the five courses and earning a C or better in the remaining course (TSM 350, 404 & 450, BME 200 & 437)

### **NAUTeach Program Admission:**

In order to take NAUTeach courses, you must apply for and be admitted to the Teacher Education Program. Program acceptance is required before enrolling in TSM 350. Admission requirements are as follows:

- Completion of TSM 101 and 102 with a grade of C or better.
- Completion of or enrollment in TSM 300 Knowing and Learning.
- Copy of fingerprint clearance card OR verification of application for fingerprint card.
- Completion of 30 units of course work which includes:
  - a grade of at least B for the English foundation requirement (ENG 105 or ENG 101 & 102). If you do not receive a 3.0, you may complete an additional English writing course, at the 200 level or above, with at least a B, to meet this requirement.
  - a grade of at least C for the Mathematics foundation requirement (MAT 125, 136, or equivalent).
- A minimum grade point average of 2.5 in all content major course work (must have taken at least 6 units).
- A declared science or mathematics BSED major.
- Completion of a teacher education orientation for secondary education.

You must have a grade point average of at least 2.5 in all of your NAU course work in order to ~~graduate~~ *student teach*. See catalog for additional information regarding application for Apprentice Teaching.

## CONTACT INFORMATION

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