

**BACHELOR OF SCIENCE IN CHEMISTRY
NANOTECHNOLOGY OPTION
RECOMMENDED PROGRAM**

FIRST SEMESTER

CHEM	111	Intro Chem I.	4.0
CHEM	188	Freshman Seminar	1.0
MATH	161	Calculus I	4.0
ENGL	110	English Composition	<u>3.0</u>
		<i>Total S.H.</i>	12.0

SECOND SEMESTER

CHEM	112	Intro Chem II	4.0
MATH	211	Calculus II	4.0
COMM	100	Fund. Of Speech	3.0
CHEM	251	Inorganic I	<u>3.0</u>
		<i>Total S.H.</i>	14.0

THIRD SEMESTER

CHEM	231	Organic I	4.0
PHYS	231	Physics I	5.0
MATH	311	Calculus III	<u>4.0</u>
		<i>Total S.H.</i>	13.0

FOURTH SEMESTER

CHEM	232	Organic II	4.0
PHYS	232	Physics II	5.0
CHEM	265	Quant. Analysis	<u>4.0</u>
		<i>Total S.H.</i>	14.0

SUMMER (18.0)

Nanofabrication Courses at Penn State University

FIFTH SEMESTER

CHEM	312	Chem in Nanotechnology	3.0
CHEM	341	Physical Chem I	4.0
_____	_____	Humanities Course #1	3.0
_____	_____	Soc. Science Course #1	<u>3.0</u>
		<i>Total S.H.</i>	13.0

SIXTH SEMESTER

CHEM	342	Physical Chem II	4.0
ENGL	3XX	Advanced Writing	3.0
_____	_____	Humanities Course #2	3.0
_____	_____	Soc. Science Course #2	<u>3.0</u>
		<i>Total S.H.</i>	13.0

SEVENTH SEMESTER

CHEM	487	Seminar in Chem I	0.5
CHEM	498	Intro to Research (Req)	1.0
CHEM	498	Chemistry Elective	1.0
CHEM	_____	Chemistry Elective	4.0
_____	_____	Humanities Course #3	3.0
_____	_____	Soc. Science Course #3	<u>3.0</u>
		<i>Total S.H.</i>	12.5

EIGHTH SEMESTER

CHEM	488	Seminar in Chem II	0.5
_____	_____	Perspectives Course	3.0
_____	_____	C&E Course #1	3.0
_____	_____	C&E Course #2	3.0
WELL	175	Wellness	<u>3.0</u>
		<i>Total S.H.</i>	12.5

COMMENTS, NOTES OR RECOMMENDATIONS:

5. Connections & Exploration (C&E) courses #1 and #4 can be satisfied with any approved GenEd course.
6. Cultural Diversity & Community (D) course may be satisfied with approved courses from the GenEd requirements (including Perspectives), the major, the minor, the required related area, or general electives.