



**Program: Nanoscience Technology AAS (66 credits) Division: Science/Math**

Student: ID#: Catalog Yr: 2017-18

**GENERAL EDUCATION REQUIREMENTS –AAS (24 credits)**

√	Course#	Course Name	Cr.	Req.	Pre-requisites	Sem.	Code^
	ORI-103*	College Success Strategies	3	X		All & OL	
	COM-121*	English Composition I	3	X	COM-061 or ESL-060 and COM-051 or ESL-050 (C or better)	All & OL	WC/IL
	IFT-110*	Microcomputer Applications	3	X	MAT-020 and COM-061 or ESL-060	All & OL	TC
<b>HUMANITIES: 6 credits</b>							
<b>Select 1 course from the following:</b>							
	COM-141	Technical Writing	3		COM-121 or COM-122 (C or better)	F/Sp & OL	OC
<b>Select 1 course from the following:</b>							
	ART-111	Introduction to Drawing	3	X	COM-061 or ESL-060 and COM-051 or ESL-050	All	AU
	ART-201	Art Appreciation	3		COM-121 or COM-122	All & OL	AU
	COM-110	Intro. to Creative Writing	3		COM-061 or ESL-060 and COM-051 or ESL-050	Fall/Sp & OL	AU
	ENG-125*	Introduction to Literature	3		COM-121 or COM-122 (C or higher)	All & OL	AU
	PHI-271*	Philosophy	3		COM-121 or COM-122	All & OL	AU
	PHI-275*	Ethics	3		COM-121 or COM-122	Fall/Sp	AU
<b>MATHEMATICS: 3 credits</b>							
	MAT-165	Trigonometry	3	X	MAT-160	All & OL	QR/CA
<b>NATURAL/PHYSICAL SCIENCES: 3 credits</b>							
	ENV-130*	Environment	3	X	COM-061	All & OL	SR
<b>SOCIAL SCIENCES: 3 credits (Select 1 course)</b>							
	ANT-140	Cultural Anthropology	3	X	COM-061 or ESL-060 and COM-051 or ESL-050	All & OL	CU
	HIS-110	US History I	3	X	COM-061 or ESL-060 and COM-051 or ESL-050	F & OL	CU
	HIS-115	US History II	3	X	COM-061 or ESL-060 and COM-051 or ESL-050	Sp & OL	CU
	PSY-130*	General Psychology	3	X	COM-061 or ESL-060 and COM-051 or ESL-050	All & OL	CU
	SOC-130*	Sociology	3	X	COM-061 or ESL-060 and COM-051 or ESL-050	All & OL	CU

\*Sections of these courses offered in the Honors Program, check <https://www.racc.edu/academics/honors-program> for details.

**Online (OL)** may not be offered every semester. Please check the schedule.

^Code	This course fulfills the Core Competency for:
WC/IL	Written Communication/Information Literacy
OC	Oral Communication
QR/CA	Quantitative Reasoning/Critical Analysis
CU	Cultural Understanding
AU	Aesthetic Understanding
SR	Scientific Reasoning
TC	Digital/Technical Competence



<b>Program: Nanoscience Technology AAS (LAB.NT.AAS)</b>		<b>Division: Science/Math</b>	
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**MAJOR REQUIREMENTS (42 credits)**

√	Course#	Course Name	Cr.	Req.	Pre-requisites	Sem.	Grade
	MAT-210	Statistics	3	X	Student can take MAT-030, MAT 032, MAT-034 or MAT 035. However, MAT-035 is needed for higher math and is recommended. COM-061 or ESL-060, COM-051 or ESL-050	All & OL	
	BIO-150	Biology I	4	X	MAT-030, COM-061 or ESL-060 , COM-051 or ESL-050 and CHE-120 or high school Chemistry with a "C" or better	All	
	CHE-150	Chemistry I	4	X	CHE 120 or high school chemistry with a "C" or better, MAT 110 with a "C" or better	Fall	
	CHE-155	Chemistry II	4	X	CHE-150 with a "C" or better and MAT-160 or MAT-180	Spring	
	PHY-150	Applied Physics	4	X	COM 061 or ESL 060, MAT 110	Fall/Sp	
	NSC-180	Electronics for Nanoscience	4	X	CHE 150, MAT 165, PHY 150 or PHY 245	Fall	
	NSC-200	Nanofabrication Seminar	1	X	Approval of Nanoscience Advisor	varies	
The following courses are taught at the Penn State Nanofabrication facility as the capstone semester for the program (consult advisor for semester information):							
	NSC-211	Materials, Safety & Equipment Overview for Nanofabrication	3	X	Approval of Nanoscience Advisor		
	NSC-212	Basic Nanofabrication Process	3	X	Approval of Nanoscience Advisor		
	NSC-213	Thin Films in Nanofabrication	3	X	Approval of Nanoscience Advisor		
	NSC-214	Lithography for Nanofabrication	3	X	Approval of Nanoscience Advisor		
	NSC-215	Materials Modification in Nanofabrication	3	X	Approval of Nanoscience Advisor		
	NSC-216	Characterization, Packaging and Testing of Nanofabricated Structures	3	X	Approval of Nanoscience Advisor		

**Advisor's Contact Information:**

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