

# Liberal Arts & Sciences

## Degree Type

Associate of Arts

## Program Description

Liberal Arts & Sciences is a flexible program designed for those who plan to transfer to a four-year institution, who are looking for personal enrichment, or who are uncertain about their major area of study. With the careful guidance of an academic advisor, students can tailor their studies to best address their objectives.

The Liberal Arts & Sciences program offers maximum flexibility for students who plan to transfer to a four-year institution. The 30-credit general education core offers courses that transfer smoothly and seamlessly to Pennsylvania State System of Higher Education universities and other local colleges and universities.

A large number of open electives enables students to tailor their program to their individual needs and interests.

The degree also offers students the opportunity to explore the entire curriculum and discover a variety of possibilities for future careers.

Students can develop their creativity in literature and the arts, explore the potential of technology, expand awareness of global cultures and the human condition, enhance mathematical and scientific reasoning, and refine oral and written communication skills.

## Program Objectives

### Upon completion of the program, the student will be able to:

- Effectively design a plan for successful transfer into the chosen four-year major and make an informed decision in order to choose a proper career path.
- Demonstrate the ability to effectively communicate and interact (both in writing and orally) with a diverse population.
- Apply skills to solve basic technical and mathematical problems.
- Demonstrate a critical appreciation for the creative process in art, music, literature, and/or language.

## Obtaining the Degree

### To earn the Associate of Liberal Arts & Sciences Degree, the student must:

- Matriculate into the program.
- Satisfactorily complete all degree requirements, including General Education and Major Requirements of the degree.

## Liberal Arts & Sciences (A.A.): Concentration Pathways

Students must choose a concentration pathway within the Liberal Arts and Sciences Degree to fine tune their degree plan toward a selected transfer goal, career, and major. Students who are unsure of their desired

transfer major can select the Exploratory pathway which will pair the student with a Career Pathways Counselor who will help the student explore options that match the student's interests and goals. Conversely, students who have a specific transfer goal in mind can select Self Design to be paired with a Transfer Services Specialist who will help the student connect to the desired transfer institution.

Pathway courses are taken as part of the open elective course requirements of the degree. Successful completion of a pathway will be indicated on the transcript as a Concentration in the selected path.

*Please note that Pathway Electives cannot be used to satisfy General Education Requirements. The following Concentration Pathways are available:*

- *Liberal Arts & Sciences A.A.: [Biology](#)*
- *Liberal Arts & Sciences A.A.: [Communication](#)*
- *Liberal Arts & Sciences A.A.: [English](#)*
- *Liberal Arts & Sciences A.A.: [Exploratory](#)*
- *Liberal Arts & Sciences A.A.: [History](#)*
- *Liberal Arts & Sciences A.A.: [Pre-Radiologic Technology Transfer](#)*
- *Liberal Arts & Sciences A.A.: [Self Design](#)*

## Liberal Arts & Sciences (A.A.): [Biology Concentration](#)

This concentration is for those students who wish to transfer into a biology or science focused bachelor's degree. Courses in first year science such as Principles of Biology and General Chemistry as well as the ability to explore other science courses is provided.

Possible transfer schools include [PA State System Universities](#) and Juniata College. Coming soon: Penn State Altoona.

## Liberal Arts & Sciences (A.A.): [Communication Concentration](#)

Completion of this concentration pathway allows students to successfully transfer to a bachelor's degree in communication-related fields such as communication, marketing, public relations, or media studies to name a few.

Possible transfer schools include [PA State System Universities](#), University of Pittsburgh at Johnstown, and Juniata College. Coming soon: Point Park University.

## Liberal Arts & Sciences (A.A.): [English Concentration](#)

Completion of this concentration pathway allows for a seamless transfer into a bachelor's degree in English, professional writing, or other literature or humanities-focused program.

Possible transfer schools include [PA State System Universities](#), University of Pittsburgh at Johnstown, Robert Morris University, and Mount Aloysius College.

## Liberal Arts & Sciences (A.A.): [Exploratory Concentration](#)

Sometimes students do not have a set plan in mind when enrolling in college. This concentration allows for students to begin earning transferable classes while still exploring majors and careers that may be right for

them. Students will be paired with a Career Pathways Specialist who will help them explore their interests and aptitudes as they consider various majors and careers. Following an exploratory period, students will be advised into a major that is right for them and that can help them reach their goal.

## Liberal Arts & Sciences (A.A.): History Concentration

Completion of this concentration pathway allows for a seamless transfer into a bachelor's degree in History, historical research, political science, or other history-related programs.

Possible transfer schools include [PA State System Universities](#), University of Pittsburgh at Johnstown, Robert Morris University, and Mount Aloysius College.

## Liberal Arts & Sciences (A.A.): Pre-Radiologic Technology Transfer Concentration

This concentration is for students who are preparing for entry into the Conemaugh Radiology Technology (Rad Tech) program. It provides students with the prerequisite coursework required to start the program at Conemaugh as well as the general education courses required for the joint diploma and degree. NOTE: this program does not guarantee acceptance into the Conemaugh School of Rad Tech. Students must apply to the Conemaugh School of Rad Tech separately and be accepted into that program in order to complete the degree.

## Liberal Arts & Sciences (A.A.): Self Design Concentration

This concentration is perfect for students who have a firm idea of the major and bachelor's degree they wish to earn. Students will be paired with a transfer counselor who will assist them in connecting with their desired transfer college, understanding the requirements of their selected bachelor's degree, and planning out courses necessary to reach that goal.

Possible transfer schools include [PA State System Universities](#), University of Pittsburgh at Johnstown, Mount Aloysius College, Robert Morris University, and Southern New Hampshire University.

# General Education Requirements

CIT 100 or other higher-level CIT course or other MAT course

Course Code	Title	Credits
FYE 101	First Year Experience	1
ENG 110	English Composition I**	3
	ENG 200 or ENG 205	3
	COM 101 or ENG 205 or other COM course suitable for transfer	3
	MAT 116 or MAT 126 or MAT 127 or MAT 145 or MAT 200	3
CIT 100	Microcomputer Applications	3
	Elective - Social Science	3
	Elective - Cultural Awareness and Diverse Perspectives	3
	Elective - Humanities	3
	Elective - Value & Ethics	3
	Elective - Science 3 or 4 Credits	3-4
	Elective - Humanities or Social Science	3
	Elective - Open	3

## Science Electives

(Choose: one 4-credit lecture and corresponding lab or one 3-credit natural science course acceptable for transfer.)

Course Code	Title	Credits
AST 100	Introduction to Astronomy	3
BIO 102	Life Science	3
	BIO 104 and BIO 114	4
	BIO 106 and BIO 116	4
	BIO 202 and BIO 212	4
	BIO 204 and BIO 214	4
	BIO 206 and BIO 216	4
	BIO 207 and BIO 217	4
	BIO 208 and BIO 218	4
CHM 115	Chemistry for Health Professions	4
CHM 120	General Chemistry I	4
ENV 110	Introductory Environmental Science	3
	GLG 102 and GLG 103	4
HSC 130	Basic Anatomy and Physiology	3
	PHY 102 and PHY 103	4
	PHY 110 and PHY 111	4
	PHY 115 and PHY 116	4

## Social Science Electives

Course Code	Title	Credits
ANT 100	Introduction to Cultural Anthropology**	3
CIV 100	Western Civilization: Ancient through Renaissance**	3
CIV 110	Western Civilization: Renaissance to Present**	3
CIV 200	Ancient Rome and the Barbarians	3
CRJ 110	Introduction to Criminal Justice	3
ECO 100	Macroeconomics	3
ECO 110	Microeconomics	3
GEO 100	Introduction to Geography	3
GOV 100	Introduction to American National Government**	3
GOV 210	Current Events and Contemporary Issues	3
HIS 100	U.S. History I: Discovery through Reconstruction**	3
HIS 110	U.S. History II: Reconstruction to Present**	3
HIS 200	American Immigration	3
HIS 205	American Popular Culture	3
HIS 210	The Civil War and Reconstruction	3
HIS 250	World War II through Film	3
PSY 100	General Psychology**	3
PSY 130	Human Development Across the Lifespan	3
PSY 200	Abnormal Psychology	3
PSY 215	Death and Dying	3
SOC 100	Introduction to Sociology**	3
SOC 125	Drugs in Society	3
SOC 200	Contemporary Social Issues	3
SOC 205	Race, Class, and Gender in Society	3
SOC 135	Families in Society	3

# Humanities Electives

Course Code	Title	Credits
ART 101	Introduction to Art History**	3
ART 105	Drawing Fundamentals	3
ART 110	Introduction to Painting and Sculpting**	3
ASL 101	American Sign Language I	3
ENG 200	English Composition II: Studies in Literature**	3
ENG 205	Research Writing	3
ENG 215	Creative Writing	3
ENG 230	Survey of American Literature I	3
ENG 235	Survey of American Literature II	3
ENG 240	Survey of British Literature I	3
ENG 245	Survey of British Literature II	3
ENG 250	Women and Literature	3
ENG 271	World Literature	3
FLM 110	Introduction to American Cinema	3
FRE 101	French I	3
FRE 102	French II	3
HUM 100	Introduction to Humanities	3
MPR 100	Introduction to Production	3
MUS 100	Introduction to Music	3
MUS 200	History of Rock n' Roll	3
PHI 100	Critical Thinking	3
PHI 110	Introduction to Philosophy**	3
PHI 200	Introduction to Ethics	3
REL 200	Understanding the Bible	3
SPA 101	Spanish I	3
SPA 102	Spanish II	3

# Cultural Awareness and Global Perspective Electives

*Students must select one course to meet the Cultural Awareness and Global Perspectives requirement. The selected course may not meet any other program or general education requirement.*

Course Code	Title	Credits
ANT 100	Introduction to Cultural Anthropology**	3
ART 101	Introduction to Art History**	3
ART 105	Drawing Fundamentals	3
ART 110	Introduction to Painting and Sculpting**	3
BEH 101	Behavioral Science Exploration	1
CIV 100	Western Civilization: Ancient through Renaissance**	3
CIV 110	Western Civilization: Renaissance to Present**	3
ENG 250	Women and Literature	3
ENG 271	World Literature	3
FLM 110	Introduction to American Cinema	3
GEO 100	Introduction to Geography	3
HIS 200	American Immigration	3
HUM 100	Introduction to Humanities	3
MUS 100	Introduction to Music	3
MUS 200	History of Rock n' Roll	3
PSY 215	Death and Dying	3
REL 100	World Religions/Religious Studies	3
SOC 100	Introduction to Sociology**	3
SOC 200	Contemporary Social Issues	3
SOC 205	Race, Class, and Gender in Society	3

# Values and Ethics Electives

*Students must select one course to meet the Value and Ethics requirement. The selected course may not meet any other program or general education requirement.*

Course Code	Title	Credits
CIV 100	Western Civilization: Ancient through Renaissance**	3
CIV 110	Western Civilization: Renaissance to Present**	3
CIV 200	Ancient Rome and the Barbarians	3
GOV 100	Introduction to American National Government**	3
GOV 210	Current Events and Contemporary Issues	3
HIS 100	U.S. History I: Discovery through Reconstruction**	3
HIS 110	U.S. History II: Reconstruction to Present**	3
HIS 205	American Popular Culture	3
HIS 210	The Civil War and Reconstruction	3
HIS 215	History through Film	3
HIS 250	World War II through Film	3
PHI 100	Critical Thinking	3
PHI 110	Introduction to Philosophy**	3
PHI 200	Introduction to Ethics	3
REL 100	World Religions/Religious Studies	3

## Note(s)

*Students who successfully complete these courses can have their credits transferred and counted towards graduation at any of the participating PA TRAC colleges and universities. Please be aware that certain majors may have specific requirements prescribed by external agencies. It is the student's responsibility to work with an advisor and/or transfer counselor to select appropriate courses as they refer to the major. See Transfer Central on myPEAK under Advising for a full list of Transfer Counselors.*

<b>Total Credits</b>	<b>61-62</b>
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## Course Sequencing

## Fall 1

Course Code	Title	Credits
FYE 101	First Year Experience	1
CIT 100	Microcomputer Applications	3
ENG 110	English Composition I**	3
	MAT 116 or MAT 126 or MAT 127 or MAT 145 or MAT 200	3
	Elective - Social Science	3
	Elective - Open	3



## Spring 1

Course Code	Title	Credits
	ENG 200 or ENG 205	3
	COM 101 or ENG 205 or other COM course suitable for transfer	3
	Elective - Humanities	3
	Elective - Open	3
	Elective - Open	3

## Fall 2

Course Code	Title	Credits
	Elective - Humanities or Social Science	3
	Elective - Value & Ethics	3
	Elective - Science 3 or 4 Credits	3-4
	Elective - Open	3
	Elective - Open	3

## Spring 2

Course Code	Title	Credits
	Elective - Cultural Awareness and Diverse Perspectives	3
	Elective - Open	3
	Elective - Open	3
	Elective - Open	3
	Elective - Open	3

# Nanotechnology Option

Nanoscience and nanotechnology are the study and application of extremely small things and can be used across all the other science fields, such as chemistry, biology, physics, materials science, and engineering. To learn more about nanotechnology, visit <http://www.cneu.psu.edu/hmWhatIsNano.html>.

Through our partnership with the NACK (Nanotechnology Applications and Career Knowledge) Network and Penn State University Nanotechnology, Penn Highlands is able to connect its students with coursework and careers in the growing field of nanotechnology.

## Nanotechnology Program Objectives

Upon completion of the program, the student will be able:

- To demonstrate leadership skills based on a sense of professional and personal integrity, self-esteem, and willingness to receive and give constructive praise and criticism.
- To apply information literacy skills.
- To demonstrate strong communications and critical thinking skills, including reading, writing, organizing, evaluating, problem solving, editing, and presenting skills.
- To demonstrate skills in mathematics and logic applied to technology.
- Operate nanofabrication processing equipment with a focus on safety, environmental and health issues.
- Demonstrate a thorough understanding of the materials handling procedures related to advanced electronic and manufacturing technologies.
- Identify material and physical hazards associated with basic semiconductor processing equipment.
- Communicate advanced technical concepts in an oral, written, and graphical form.
- Use the computer in reporting, analyzing, and researching technical information.
- Provide an active problem-solving link between engineers and production personnel.
- Record relevant information in a working lab notebook.
- Identify industries using nanofabrication technology such as opto-electronics, biomedical, sensors, flat panel displays, information storage, micro-electromechanical devices, micro-fluidics, solar cells, and microelectronics.

## Application Process

Eligibility Requirements for the program include:

- Have a history of course completion.
- Demonstrate maturity.
- Have good interpersonal skills.
- Have no history of disciplinary problems.
- Work well with others.
- Have shown a genuine interest in the NMT field and be registered as a nanofabrication student.
- Complete the required prerequisites.
- Have a minimum 2.5 GPA.
- Obtain a recommendation from the program lead.

To be accepted into the PSU Nanotechnology capstone program, students must:

- Contact the Office of Instruction at Penn Highlands for program application instructions and information at 814.262.6486.
- Apply to Penn State and provide the necessary documentation, including a letter of reference.
- If accepted, students must provide acceptance letter to the Registrar for course scheduling.
- Pay the required tuition, fees, and materials for the program. Costs will include room and board for the semester at Penn State Main Campus, a program fee of \$2,500, Penn Highlands' tuition and fees, books, and materials.

Students may contact the Penn State University NMT program directly for more information and the application: Sue Barger, Administrative Support Coordinator, 814.865.9635, [sbarger@engr.psu.edu](mailto:sbarger@engr.psu.edu).

## Course Information

Students pursuing certification in Nanotechnology will complete the Liberal Arts and Science – Self Design Degree. Once Penn Highlands courses are completed and upon acceptance into the PSU Nanotechnology program, students will enroll in the following courses offered through the Pennsylvania Nanofabrication Manufacturing Technology (NMT) Partnership at Penn State University's Main Campus. Courses are offered during one summer semester at Penn State University in State College, PA. Students must make arrangements to attend classes in State College, including room and board.

Course Code	Title	Credits
	SPRING 1	
FYE 101	First Year Experience	1
ENG 110	English Composition I**	3
CIT 100	Microcomputer Applications	3
	Elective - Cultural Awareness and Diverse Perspectives	3
	Elective - Open	3
	FALL 1	
ENG 225	Technical Writing	3
CHM 120	General Chemistry I	4
MAT 117	Technical Math	3
	Elective - Open	3
	Elective - Humanities or Social Science	3
	SPRING 2	
COM 101	Public Speaking	3
	Elective - Value & Ethics	3
	Elective - Humanities	3
	PHY 102 and PHY 103	4
	Elective - Social Science	3
	SUMMER 1 (at Penn State University)	
ELT 220	Material, Safety, and Equipment Overview for Nanofabrication	3
ELT 221	Basic Nanofabrication Processes	3
ELT 222	Materials in Nanotechnology	3
ELT 223	Lithography for Nanofabrication	3
ELT 224	Materials Modification in Nanofabrication	3
ELT 225	Characterization, Testing of Nanofabricated Structures and Materials	3