

Addendum C (10)

Program-to-Program Articulation

**Luzerne County Community College, Pre-Engineering Associate in Science
Penn State, Baccalaureate Degree in * Engineering, Alternative Energy and Power Generation Option**

Offered by the College of Engineering at Penn State Hazleton

Luzerne County Community College			Penn State University, University College			
<i>Associate in Science degree in Pre-Engineering http://www.luzerne.edu/academics/catalog2016/degree.jsp?header=arc_hitect.jpg&code=EGR&dept=14&sel=1&d=15</i>			<i>Bachelor of Science in General Engineering, Alternative Energy and Power Generation Option http://bulletins.psu.edu/undergrad/campuses/details/11/G%20E</i>			
	COURSE	CREDITS	REQUIREMENT	COURSE	CREDITS	DIRECT or SUBSTITUTION, ELECTIVE, NON-USABLE IN MAJOR
CHE 151 and CHE 152 <i>Students must complete both LCCC courses.</i>	General Chemistry I and General Chemistry II	8	Major Prescribed Courses and General Education Natural Sciences GN.	*CHEM 110/111 and CHEM 112/113 – Chemical Principles I and II and Experimental Chemistry I and II.	8	Direct
EGR 110	General Graphic Design	3	Major Prescribed Course	EDSGN 100 Introduction to Engineering Design	3	Direct
MAT 151	Analytic Geometry and Calculus I	4	Major Prescribed Course and General Education Quantification GQ	*MATH 140 GQ Calculus with Analytical Geometry I	4	Direct
MAT 251	Analytic Geometry and Calculus II	4	Major Prescribed Course and General Education Quantification GQ	*MATH 141 GQ Calculus with Analytical Geometry II	4	Direct
MAT 252	Analytic Geometry & Calculus III	4	Major Prescribed Course	MATH 230 (4) Calculus Vector Analysis substituted for MATH 231(2) Calculus of Several Variables.	2 +2 credits of electives	Direct
PHY 151	Calculus-Based Physics I	4	Major Prescribed Course and General Education Natural Science GN	*PHYS 211 GN General Physics: Mechanics	4	Direct
EGR 220	Statics	3	Major Prescribed Course	EMCH 211 Statics	3	Direct
EGR 225	Electrical Circuits and Devices	4	Option Prescribed Course	EE 210 Circuits and Devices	4	Direct

EGR 235	Strengths of Materials	3	Major Prescribed Course	EMCH 213 Strength of Materials	3	Direct
ENG 261	Technical Communications	3	General Education (GWS)	COMM XFR200 for ENGL 202C	3	Substitute
PHY 152	Calculus-Based Physics II	4	Major Prescribed Course and General Education Natural Science GN	*PHYS 212 General Physics: Electricity & Magnetism	4	Direct
EGR 245	Thermodynamics	3	Major Additional Course	ME 300 Engineering Thermodynamics I	3	Direct
MAT 280	Ordinary and Partial Differential Equations	4	Major Prescribed Course	*MATH 251 Ordinary and Partial Differential Equations	4	Direct
ECO 151	Principles of Economics I	3	Major Additional Course and General Education Social and Behavioral Sciences GS	ECON 104 GS Introductory Macroeconomics Analysis and Policy	3	Direct
ENG 101	English Composition I	3	General Education Writing and Speaking GWS	ENGL 15 GWS Rhetoric and Composition	3	Direct
SPE 125	Fundamentals of Speech	3	General Education Writing and Speaking GWS	CAS 100 GWS Effective Speech	3	Direct
FYE 101	First Year Experience	1	Elective	PSU XFRGEN	1	Direct
Elective - Health and Physical Education	See General Education Health and Physical Activity Recommended List	2	General Education Health and Physical Activity GHA	See GHA list	2	Direct
	Total LCCC Credits	63		Total PSU Credits	63	

**Admission to Engineering requires a 2.5 cumulative GPA at Luzerne County Community College and completion of the following courses, with a C (2.0) or higher grade: CHEM 151, CHEM 152, MATH 151, MATH 251, PHY 151, PHY 152 and MATH 280.*

Penn State requires three credits of International Cultures (IL) and three credits of United States Cultures (US). The two courses that fulfill the IL and US requirements can also be used to fulfill General Education Arts, Humanities or Social Science requirements.

Two units in a single world language other than English are required. However, a student may be admitted with fewer than two units in a world language other than English, but must correct this deficiency by the time the student graduates from Penn State. This deficiency may be corrected by passing one three- or four-credit college-level world language course or by demonstrating proficiency equivalent to two units of high school world language study.

General Education Equivalencies

The following Luzerne CC courses will meet PSU General Education requirements. Students should consult the program-to-program guides above when selecting general education courses and are advised to consult with PSU Undergraduate Admissions staff with questions. Additional Luzerne CC courses may satisfy PSU General Education courses upon submission of syllabi by the student and review and approval by PSU.

Luzerne County Community College			Penn State University, University College			
REQUIREMENT	COURSE	CREDITS	REQUIREMENT	COURSE	CREDITS	DIRECT or SUBSTITUTION
<i>RECOMMENDED General Education Arts elective courses</i>			<i>Recommend taking <u>two</u> General Education Arts (GA) courses</i>			
CAR 119	Drawing I	3	ART 20	Introduction to Drawing	3	Direct
MUS 150	Music Appreciation	3	MUSIC 5	An Introduction to Western Music	3	Direct
ART 110	Art Appreciation	3	ART H 100	Introduction to Art (IL)	3	Direct
THR 100	Introduction to Theatre	3	THEA 100	The Art of the Theatre (US)(IL)	3	Direct
<i>RECOMMENDED General Education Humanities elective courses</i>			<i>Recommend taking <u>two</u> General Education Humanities (GH) courses</i>			
PHI 150	Introduction to Philosophy	3	PHIL 1	Basic Problems of Philosophy	3	Direct
PHI 151	Introduction to Ethics	3	PHIL 3	Persons, Moral Values, and the Good Life	3	Direct
HIS 101	Western Civilization I	3	HIST 1	Western Heritage I (IL)	3	Direct
HIS 102	Western Civilization II	3	HIST 2	Western Heritage II (IL)	3	Direct
HIS 201	American History to 1865	3	HIST 20	American Civilization to 1877 (US)	3	Direct
HIS 202	American History Since 1865	3	HIST 21	American Civilization Since 1877 (US)	3	Direct
<i>RECOMMENDED General Education Mathematics elective courses</i>			<i>Recommend taking General Education <u>Quantification</u> (GQ) courses</i>			
MAT 107	Basic Statistics	3	STAT 100	Elementary Statistics	3	Direct
MAT 121	College Algebra	3	MATH 22	College Algebra II and Analytic Geometry	3	Direct
MAT 151	Analytic Geometry and Calculus I	4	MATH 140	Calculus With Analytic Geometry I	4	Direct
<i>RECOMMENDED General Education Science elective courses</i>			<i>Recommend taking <u>three</u> General Education Natural science (GN) courses, <u>one</u> with Lab</i>			
CHE 111	Fundamentals of Chemistry	3	CHEM 101	Introductory Chemistry	3	Direct
CHE 151 and CHE 152 Must complete both courses for PSU equivalency.	General Chemistry I and General Chemistry II	8	CHEM 110/111 CHEM 112/113	Chemical Principles I and Experimental Chemistry I and II	8	Direct

GEO 111	World Physical Geography	3	GEOG 10	Physical Geography: An Introduction	3	Direct
PHY 131	General Physics I	4	PHYS 250	Introductory Physics I	4	Direct
PHY 132	General Physics I	4	PHYS 251	Introductory Physics II	4	Direct
PHY 151	Calculus-Based Physics I	4	PHYS 211	General Physics: Mechanics	4	Direct
PHY 152	Calculus-Based Physics II	4	PHYS 212	General Physics: Electricity & Magnetism	4	Direct

<i>RECOMMENDED General Education Social Science elective courses</i>			<i>Recommend taking two General Education Social and behavioral sciences (GS) courses</i>			
CJU 130	Introduction to Criminal Justice	3	CRIM 100	Introduction to Criminal Justice	3	Direct
CJU 140	Criminal Law	3	CRIM 12 / SOC 12 / CRIMJ 12	Criminology	3	Direct
CJU 141	Delinquency and Juvenile Justice	3	SOC 13	Juvenile Delinquency	3	Direct
CJU 245	Crime and Criminology	3	CRIMJ XFR200	Criminology	3	Direct
ECO 151	Principles of Economics I	3	ECON 104	Introductory Macroeconomic Analysis and Policy	3	Direct
ECO 152	Principles of Economics II	3	ECON 102	Introductory Microeconomic Analysis and Policy	3	Direct
JOR 100	Introduction to Mass Communications	3	COMM 100 / AM ST 106	The Mass Media and Society	3	Direct
POS 101	American Government	3	PLSC 1	Introduction to American National Government	3	Direct
PSY 103	General Psychology	3	PSYCH 100	Introductory Psychology	3	Direct
PSY 217	Developmental Psychology	3	PSYCH 212	Introduction to Developmental Psychology	3	Direct
SOC 101	Principles in Sociology	3	SOC 1	Introductory Sociology	3	Direct
SOC 216	Contemporary Social Issues	3	SOC 5	Social Problems	3	Direct
SOC 217	The Family	3	SOC 30	Sociology of the Family	3	Direct
BUS 101	Introduction to Business	3	B A 100	Introduction to Business	3	Direct
GEO 112	World Cultural Geography	3	GEOG 40	World Regional Geography (IL)	3	Direct
SOC 103	Introduction to Women's Studies	3	WMNST 100	Introduction to Women's Studies (US)(IL)	3	Direct
SOC 218	Cultural Anthropology	3	ANTH 1	Introductory Anthropology (US)(IL)	3	Direct
SSC 103	Introduction to Women's Studies	3	WMNST 100	Introduction to Women's Studies (US)(IL)	3	Direct
<i>RECOMMENDED General Education Health and Physical Activity elective courses</i>			<i>Recommend taking 3 credits of General Education Health and Physical Activity (GHA) courses</i>			
CJU 139	Survey of Drugs	3	BB H 143	Drugs, Behavior, and Health	3	Direct

HPE 107	High/Low Aerobic Dance	1-3	KINES XFR000	KINES XFR	3	Substitution
HPE 110	Basketball	1	KINES XFR000	KINES XFR	1	Substitution
HPE 127	Hatha Yoga I		KINES XFRGEN	KINES XFR	1	Substitution
HPE 128	Intro To Exercise Physiology		KINES XFR100	KINES XFR	3	Substitution
HPE 129	Strength & Conditioning		KINES XFRGHA	KINES XFR	1	Substitution
HPE 130	Nutrition & Wellness		NUTR 100 + NUTR XFRGEN		1.5+.5	Direct
HPE 131	Beginning Golf		KINES 29	Golf I	1	Direct
HPE 132	Basic Martial Arts		KINES XFRGEN	KINES XFR	1	Substitution
HPE 135	Weight/Nutrition Management		KINES XFRGHA	KINES XFR	1	Substitution
HPE 136	Group Stationary Bicycling		KINES XFRGEN	KINES XFR	1	Substitution
HPE 141	Volleyball		KINES XFRGEN	KINES XFR	1	Substitution
HPE 152	Intro to Physical Education		KINES XFR200	KINES XFR	3	Substitution
HPE 154	Safety and First Aid		NURS XFRGHA	NURS XFR	3	Substitution
HPE 155	Personal Health		BBH XFRGHA	BBH XFR	3	Substitution
HPE 165	Phys Ed for Young Children		KINES XFRGEN	KINES XFR	1	Substitution
HPE 201	Personal Training I		KINES XFR200	KINES XFR	3	Substitution
HPE 220	Voices in Sport & Society		KINES XFR100	KINES XFR	3	Substitution
HPE 230	Badminton		KINES XFRGEN	KINES XFR	1	Substitution
HPE 244	Coaching of Sport		KINES XFR400	KINES XFR	3	Substitution
HPE 248	Human Sexuality		BBH 146	Health & Human Sexuality	3	Direct
HPE 263	Introduction to Nutrition		NUTR XFR200	NUTR XFR	3	Substitution