Memo of Agreement Regarding Articulation The Pennsylvania State University for Penn State Harrisburg and Community College of Philadelphia

PURPOSE

The Pennsylvania State University, on behalf of Penn State Harrisburg (PSH) and Community College of Philadelphia (CCP) establish this Memorandum of Agreement Regarding Articulation to facilitate the matriculation of students from CCP to PSH. The purpose of the agreement is to provide a pathway for students who have successfully completed a transfer associate degree program at CCP to transition to a parallel baccalaureate degree program at PSH with a goal of improving student completion and degree attainment. The agreement defines admission criteria, the academic programs included in the agreement, process for the evaluation of transfer credits and academic advising services to support students in their transition from CCP to PSH.

PROCEDURES

A. Admissions Requirements

CCP students apply to Penn State by submitting the Penn State undergraduate admissions application and official transcripts from CCP and any other colleges or universities attended. The application fee will be waived.

Students who complete an AA, AFA, AS or AAS transfer degree program included in Appendix A, are in good standing, and have a minimum grade-point average of 2.00 are guaranteed admission to Penn State. Criteria for transfer admission to academic programs may also include successful completion of specific course requirements.

Community College students can request dual admission to a Penn State Commonwealth campus by submitting an *Intent to Enroll Form* during their enrollment at CCP. Students will receive a conditional offer of admission to a Penn State Commonwealth Campus. During the last semester of enrollment at CCP, dual admitted students will complete and submit a transfer application via MyPennState. The admissions application fee will be waived. Penn State Commonwealth Campuses will report monthly the names of any students who submit the *Intent to Enroll Form* to the PA Community College transfer advisers.

Students will be asked to notify Penn State of any criminal history prior to enrollment. A prior criminal history issue will not necessarily disqualify a student from attending Penn State but may be subject to further review.

GPA is calculated using the GPA reported by CCP, in addition to all other institutions where a student has attempted college coursework.

B. Academic Programs

The Penn State baccalaureate programs included in the terms of the agreement are detailed in Appendix A and may be updated by the parties without renewing the memo of agreement.

Programs stated in Addendum A will articulate 60 credits of associate degree courses to be applied to degree requirements in a specific Penn State Commonwealth Campus baccalaureate major. Any exception to articulate fewer than 60 credits toward PSU degree requirements must be approved by academic leadership of the PA Community College and the Penn State Commonwealth Campus.

Program-to-program transfer guides outlining the specific course equivalencies and approved substitutions for each academic program are included in the agreement. The guides were developed in consultation with CCP and PSH disciplinary faculty and are included as Addendum B.

Majors not specified in Addendum A, including those offered at other Penn State Colleges and campuses are not covered by the terms of this agreement. Therefore, students admitted under this agreement who seek to enter a major at another Penn State college/campus, would be evaluated based on the advanced standing admissions criteria of that college and campus.

Penn State Evaluation of Transfer Credits

Specific course transferability and equivalency, presented in Addendum B were determined by disciplinary faculty and are communicated through transfer course tables maintained by Penn State's Undergraduate Admissions Office in the student information system.

CCP courses evaluated as equivalent to Penn State courses or approved as general credit within a discipline, with grades of C (2.0) or higher, will be added to the student's Penn State academic transcript by the Undergraduate Admissions Office.

Transferability of courses not specified in the program-to-program guides will be reviewed by the Undergraduate Admissions Office on a case-by-case basis. Syllabi are required to support all course evaluations.

Courses evaluated as general requirements were reviewed by the Penn State faculty in the discipline of the course and in some cases, were applied as substitutions for specific degree requirements.

The curriculum transfer guides, in effect at the time a student first enrolls at CCP, will be honored by PSH if the student completes an AA or AS degree program named in the agreement and successfully transfers to a PSH within four years of their first enrollment at CCP, i.e., for CCP students admitted in fall 2024 the agreement will be honored until spring 2028.

Courses/credits earned through Advanced Placement (AP), College-Level Examination Program (CLEP), or other testing programs will be evaluated according to Penn State's established criteria.

Credit evaluation for prior learning activity, for example military education experience and credit by

portfolio will be assessed according to Penn State policy and through the process established by PSH.

C. Cost of Attendance, Student Aid and Scholarship Eligibility

Penn State participates in all the major federal and state student aid programs. Scholarships are awarded based on merit and/or financial need as defined by the specific scholarship program. Students who submit a Free Application for Federal Student Aid (FAFSA) to Penn State are considered for scholarships awarded by the Penn State Office of Student Aid.

PA Community College students who transfer to a Penn State Commonwealth Campus will earn Penn State degree at considerable savings, paying \$5,000 to \$8,000 less (depending on the campus) in annual, full-time, upper division tuition as compared to Penn State's University Park campus.

Penn State will participate in the RaiseMe Transfer Scholarship initiative and will provide grants up to a maximum of \$7,000 to PA Community College students who meet the following eligibility requirements will receive the grant upon transfer:

- Follow Penn State Commonwealth campuses at RaiseMe,
- Enroll and earn micro-scholarships during enrollment at a PA Community College,
- Be a U.S. Citizen or Permanent Resident,
- Maintain a minimum cumulative grade-point average of 2.8; and,
- File the Free Application for Federal Student Aid (FAFSA) annually.

PA Community Colleges will support and promote the RaiseMe Transfer initiative on their campuses.

D. Academic Advising and Transition

CCP and PSH will work in partnership to develop and implement a plan to strengthen their shared roles in academic advising and transition support services.

PSH and CCP will make advising materials and course equivalency information available to students via their respective websites.

PSH will be permitted to support the transition of students enrolled at CCP via outreach initiatives that might include scheduled advising visits at CCP or through invitation to visit PSH.

PSH will provide a dedicated transfer counselor and offer an academic orientation to transferring students for the purpose of providing academic advising, and orientation to academic and technology resources, student life and career services, and financial aid and billing information.

Admissions and Advising staff from all CCP campuses and PSH will meet annually to discuss and enhance student transitions.

E. Update/Report/Relationship

The Pennsylvania State University and CCP agree to review the agreement and relevant transfer course equivalencies annually and will each assign an individual to serve as liaisons for the purpose of monitoring and updating the agreement. This agreement may be amended, as needed, for specific course or program articulation without affecting the currency of the master agreement.

As a component of this review process The Pennsylvania State University will include five years of data showing enrollment and completion by community college students at the University to be updated annually.

F. Amendments and Term of Effect

This document constitutes the entire agreement and terms of understanding between The Pennsylvania State University on behalf of PSH and CCP, and supersedes any other prior agreements or understandings between the two parties.

The master agreement will be reviewed annually and revised as necessary. All revisions are to be approved by each institution's official signatories. This Agreement will have a term of one (1) year starting from the last date provided below and will automatically renew for successive one (1) year terms, not to exceed (5) years.

This agreement may be terminated by either party upon written notice to the other party of an intention to terminate. Such notice will be effective only if given one year prior to the intended date of termination.

In the event that this agreement is terminated, curriculum transfer guides, in effect at the time a student first enrolls at CCP in the AA, AFA, AS, or AAS programs identified in Addendum A will be honored for students who complete an AA or AS degree program and successfully transfers to PSH within four years of their first enrollment at CCP.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

Jeff Adams, Ph.D. Interim Vice Provost and Dean for Undergraduate Education The Pennsylvania State University

Dini

Margo DelliCarpini Ph.D. Vice President for Commonwealth Campuses, and Executive Chancellor The Pennsylvania State University

David M. Callejo Perez, Ed.D. Chancellor/Dean, Penn State Harrisburg The Pennsylvania State University

Donald Generals, Ed.D. President Community College of Philadelphia

arhell

Alycia A. Marshall, Ph.D. Provost and Vice President for Academic and Student Success Community College of Philadelphia

5/30/2024

6/4/2024

Date

5/29/2024

Date

13

Date

Addendum A: Penn State Harrisburg programs included in the Agreement

- 1. Bachelor of Science in Civil Engineering
- 2. Bachelor of Science in Electrical Engineering
- 3. Bachelor of Science in Electrical Engineering Technology
- 4. Bachelor of Science in Mechanical Engineering
- 5. Bachelor of Science in Mechanical Engineering Technology
- 6. Bachelor of Science in Structural Design and Construction Engineering Technology

Addendum B: Program-to-Program Transfer Guides

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.S. Engineering Science Penn State Harrisburg, B.S. Civil Engineering

	Community College of Philadelphia		Penn State Harrisburg					
https://www.cc	A.S. Engineering Science p.edu/academic-offerings/all-offerings/engi	neering	B.S. Civil Engineering https://bulletins.psu.edu/undergraduate/colleges/capital/civil-engineering-bs/					
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION		
ENGR 102	Engineering Design and Laboratory I	4	EDSGN 100	Major Requirement	3	Direct		
MATH 171	Calculus I	4	MATH 140	General Education (GQ)	4	Direct		
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct and Substitution		
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct		
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Additional Course	3	Substitution		
ENGR 202	Engineering Design and Laboratory II	4	ENGR XFR100	Additional Course	4	Substitution		
PHYS 140	Mechanics, Heat, and Sound	5	PHYS 211	General Education (GN)	4	Direct		
MATH 172	Calculus II	4	MATH 141	General Education (GQ)	4	Direct		
MATH 270	Linear Algebra	4	MATH 220	General Education (GQ)	3	Direct		
ENGL 102	The Research paper	3	ENGL XFRGH	General Education (GH)	3	Direct		
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct		
CHEM 122	College Chemistry II	4	CHEM 112 and CHEM 113	General Education (GN)	4	Direct and Substitution		
MATH 271	Calculus III	4	MATH 232 and XFRGQ2	Major Requirement	4	Direct		
ENGR 221	Vector Mechanics I (Statics)	3	E MCH 211	Major Requirement	3	Direct		

PHYS 241	Electricity, Magnetism, and Light	5	PHYS 212	General Education (GN)	4	Direct
SOC 101	Introduction to Sociology	3	SOC 1	General Education (GS)	3	Direct
MATH 272	Differential Equations	4	MATH 251	Major Requirement	4	Direct
ENGR 222	Dynamics	3	E MCH 212	Major Requirement	3	Direct
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	4	Direct
	Total CCP Credits	71		Total PSH Credits	67	

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.S. Engineering Science Penn State Harrisburg, B.S. Electrical Engineering

Program offered at Penn State Harrisburg

.

	Community College of Philadelphia		Penn State Harrisburg					
https://www.cc	A.S. Engineering Science p.edu/academic-offerings/all-offerings/eng	ineering	B.S. Electrical Engineering https://bulletins.psu.edu/undergraduate/colleges/capital/electrical-engineering-bs/					
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION		
ENGR 102	Engineering Design and Laboratory I	4	EDSGN 100	Major Requirement	3	Direct		
MATH 171	Calculus I	4	MATH 140	General Education (GQ)	4	Direct		
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct and Substitution		
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct		
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Additional Course	3	Substitution		
ENGR 202	Engineering Design and Laboratory II	4	ENGR XFR100	Additional Course	4	Substitution		
PHYS 140	Mechanics, Heat, and Sound	5	PHYS 211	General Education (GN)	4	Direct		
MATH 172	Calculus II	4	MATH 141	General Education (GQ)	4	Direct		
MATH 270	Linear Algebra	4	MATH 220	General Education (GQ)	3	Direct		
ENGL 102	The Research paper	3	ENGL XFRGH	General Education (GH)	3	Direct		
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct		
CHEM 122	College Chemistry II	4	CHEM 112 and CHEM 113	General Education (GN)	4	Direct and Substitution		
MATH 271	Calculus III	4	MATH 232 and XFRGQ2	Major Requirement	4	Direct		
ENGR 221	Vector Mechanics I (Statics)	3	E MCH 211	Major Requirement	3	Direct		

	Total CCP Credits	71		Total PSH Credits	67	
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	4	Direct
ENGR 222	Dynamics	3	E MCH 212	Major Requirement	3	Direct
MATH 272	Differential Equations	4	MATH 251	Major Requirement	4	Direct
SOC 101	Introduction to Sociology	3	SOC 1	General Education (GS)	3	Direct
PHYS 241	Electricity, Magnetism, and Light	5	PHYS 212	General Education (GN)	4	Direct

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.S. Engineering Science Penn State Harrisburg, B.S. Electrical Engineering Technology

	Community College of Philadelphia			Penn State Harrisburg					
https://www.cc	A.S. Engineering Science p.edu/academic-offerings/all-offerings/engi	<u>neering</u>	B.S. Electrical Engineering Technology https://bulletins.psu.edu/undergraduate/colleges/capital/electrical-engineering-technology-bs/						
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION			
ENGR 102	Engineering Design and Laboratory I	4	EDSGN 100	Major Requirement	3	Direct			
MATH 171	Calculus I	4	MATH 140	General Education (GQ)	4	Direct			
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct and Substitution			
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct			
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Additional Course	3	Substitution			
ENGR 202	Engineering Design and Laboratory II	4	ENGR XFR100	Additional Course	4	Substitution			
PHYS 140	Mechanics, Heat, and Sound	5	PHYS 211	General Education (GN)	4	Direct			
MATH 172	Calculus II	4	MATH 141	General Education (GQ)	4	Direct			
MATH 270	Linear Algebra	4	MATH 220	General Education (GQ)	3	Direct			
ENGL 102	The Research paper	3	ENGL XFRGH	General Education (GH)	3	Direct			
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct			
CHEM 122	College Chemistry II	4	CHEM 112 and CHEM 113	General Education (GN)	4	Direct and Substitution			
MATH 271	Calculus III	4	MATH 232 and XFRGQ2	Major Requirement	4	Direct			
ENGR 221	Vector Mechanics I (Statics)	3	E MCH 211	Major Requirement	3	Direct			

PHYS 241	Electricity, Magnetism, and Light	5	PHYS 212	General Education (GN)	4	Direct
SOC 101	Introduction to Sociology	3	SOC 1	General Education (GS)	3	Direct
MATH 272	Differential Equations	4	MATH 251	Major Requirement	4	Direct
ENGR 222	Dynamics	3	E MCH 212	Major Requirement	3	Direct
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	4	Direct
	Total CCP Credits	71		Total PSH Credits	67	

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.A.S. Applied Engineering Technology Penn State Harrisburg, B.S. Electrical Engineering Technology

	Community College of Philadelphia		-	Penn State Harrisburg		-	
<u>https://www.c</u>	A.S. Engineering Science <u>cp.edu/academic-offerings/all-offerings/engin</u>	<u>eering</u>	B.S. Electrical Engineering Technology https://bulletins.psu.edu/undergraduate/colleges/capital/electrical-engineering-technology-bs/				
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION	
AET 101	Introduction to Robotics	4	ET XFR100	Elective	4	Direct	
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct	
MATH 161	Precalculus I	3	MATH XFRGQ0	Elective	3	Direct	
General Elective		3		Elective	3	Direct	
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Elective	3	Direct	
ENGL 102	The Research Paper	3	ENGL XFRGH	General Education (GH)	3	Direct	
ELEC 120	Direct and Alternating Current Circuits	4	EET XFRGEN	Technical Elective	4	Direct	
MATH 162	Precalculus II	3	MATH 26	General Education (GQ)	3	Direct	
CHEM 110	Introductory Chemistry	4	CHEM 101	General Education (GN)	3	Direct	
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	3	Direct	
ELEC 130	Digital Electronics	4	CMPEN XFRGEN	Technical Elective	4	Direct	
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct	
PHYS 111	General Physics I	4	PHYS 250	General Education (GN)	4	Direct	
Technical Elective	Any AET course above AET 101 OR ELEC 124 – Semiconductor Devices	3-4		Technical Elective	3	Direct	

Technical Elective	Any AET course above AET 101 OR ELEC 124 – Semiconductor Devices	3-4		Technical Elective	3	Direct
PHYS 112	General Physics II	4	PHYS 251	General Education (GN)	4	Direct
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct
ECON 181	Principles of Macroeconomics	3	ECON 104	General Education (GS)	3	Direct
	Total CCP Credits	62		Total PSH Credits	60	

Penn State requires two units in a single world language other than English. 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 she/he earns 60 credits or graduates from Penn State, whichever comes first. 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.

.

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.S. Engineering Science Penn State Harrisburg, B.S. Mechanical Engineering

	Community College of Philadelphia		Penn State Harrisburg					
https://www.cc	A.S. Engineering Science p.edu/academic-offerings/all-offerings/eng	ineering	B.S. Mechanical Engineering https://bulletins.psu.edu/undergraduate/colleges/capital/mechanical-engineering-bs/					
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION		
ENGR 102	Engineering Design and Laboratory I	4	EDSGN 100	Major Requirement	3	Direct		
MATH 171	Calculus I	4	MATH 140	General Education (GQ)	4	Direct		
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct and Substitution		
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct		
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Additional Course	3	Substitution		
ENGR 202	Engineering Design and Laboratory II	4	ENGR XFR100	Additional Course	4	Substitution		
PHYS 140	Mechanics, Heat, and Sound	5	PHYS 211	General Education (GN)	4	Direct		
MATH 172	Calculus II	4	MATH 141	General Education (GQ)	4	Direct		
MATH 270	Linear Algebra	4	MATH 220	General Education (GQ)	3	Direct		
ENGL 102	The Research paper	3	ENGL XFRGH	General Education (GH)	3	Direct		
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct		
CHEM 122	College Chemistry II	4	CHEM 112 and CHEM 113	General Education (GN)	4	Direct and Substitution		
MATH 271	Calculus III	4	MATH 232 and XFRGQ2	Major Requirement	4	Direct		
ENGR 221	Vector Mechanics I (Statics)	3	E MCH 211	Major Requirement	3	Direct		

	Total CCP Credits	71		Total PSH Credits	67	
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	4	Direct
ENGR 222	Dynamics	3	E MCH 212	Major Requirement	3	Direct
MATH 272	Differential Equations	4	MATH 251	Major Requirement	4	Direct
SOC 101	Introduction to Sociology	3	SOC 1	General Education (GS)	3	Direct
PHYS 241	Electricity, Magnetism, and Light	5	PHYS 212	General Education (GN)	4	Direct

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.S. Engineering Science Penn State Harrisburg, B.S. Mechanical Engineering Technology

	Community College of Philadelphia		Penn State Harrisburg					
https://www.cc	A.S. Engineering Science https://www.ccp.edu/academic-offerings/all-offerings/engineering			B.S. Mechanical Engineering Technology https://bulletins.psu.edu/undergraduate/colleges/capital/mechanical-engineering-technology-bs/				
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION		
ENGR 102	Engineering Design and Laboratory I	4	EDSGN 100	Major Requirement	3	Direct		
MATH 171	Calculus I	4	MATH 140	General Education (GQ)	4	Direct		
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct and Substitution		
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct		
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Additional Course	3	Substitution		
ENGR 202	Engineering Design and Laboratory II	4	ENGR XFR100	Additional Course	4	Substitution		
PHYS 140	Mechanics, Heat, and Sound	5	PHYS 211	General Education (GN)	4	Direct		
MATH 172	Calculus II	4	MATH 141	General Education (GQ)	4	Direct		
MATH 270	Linear Algebra	4	MATH 220	General Education (GQ)	3	Direct		
ENGL 102	The Research paper	3	ENGL XFRGH	General Education (GH)	3	Direct		
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct		
CHEM 122	College Chemistry II	4	CHEM 112 and CHEM 113	General Education (GN)	4	Direct and Substitution		
MATH 271	Calculus III	4	MATH 232 and XFRGQ2	Major Requirement	4	Direct		
ENGR 221	Vector Mechanics I (Statics)	3	E MCH 211	Major Requirement	3	Direct		

PHYS 241	Electricity, Magnetism, and Light	5	PHYS 212	General Education (GN)	4	Direct
SOC 101	Introduction to Sociology	3	SOC 1	General Education (GS)	3	Direct
MATH 272	Differential Equations	4	MATH 251	Major Requirement	4	Direct
ENGR 222	Dynamics	3	E MCH 212	Major Requirement	3	Direct
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	4	Direct
	Total CCP Credits	71		Total PSH Credits	67	

Addendum B Program-to-Program Articulation Community College of Philadelphia, A.S. Engineering Science Penn State Harrisburg, B.S. Structural Design and Construction Engineering Technology

	Community College of Philadelphia		Penn State Harrisburg					
A.S. Engineering Science https://www.ccp.edu/academic-offerings/all-offerings/engineering			B.S. Structural Design and Construction Engineering Technology https://bulletins.psu.edu/undergraduate/colleges/capital/structural-design-construction-engineering- technology-bs/					
REQUIREMENT	COURSE	CREDITS	COURSE	REQUIREMENT	CREDITS	DIRECT OR SUBSTITUTION		
ENGR 102	Engineering Design and Laboratory I	4	EDSGN 100	Major Requirement	3	Direct		
MATH 171	Calculus I	4	MATH 140	General Education (GQ)	4	Direct		
CHEM 121	College Chemistry I	4	CHEM 110 and CHEM 111	General Education (GN)	4	Direct and Substitution		
ENGL 101	English Composition I	3	ENGL 15	General Education (GWS)	3	Direct		
CIS 103	Computer Applications and Concepts	3	MIS XFRGEN	Additional Course	3	Substitution		
ENGR 202	Engineering Design and Laboratory II	4	ENGR XFR100	Additional Course	4	Substitution		
PHYS 140	Mechanics, Heat, and Sound	5	PHYS 211	General Education (GN)	4	Direct		
MATH 172	Calculus II	4	MATH 141	General Education (GQ)	4	Direct		
MATH 270	Linear Algebra	4	MATH 220	General Education (GQ)	3	Direct		
ENGL 102	The Research paper	3	ENGL XFRGH	General Education (GH)	3	Direct		
ENGL 115	Public Speaking	3	CAS 100	General Education (GWS)	3	Direct		
CHEM 122	College Chemistry II	4	CHEM 112 and CHEM 113	General Education (GN)	4	Direct and Substitution		
MATH 271	Calculus III	4	MATH 232 and XFRGQ2	Major Requirement	4	Direct		

ENGR 221	Vector Mechanics I (Statics)	3	E MCH 211	Major Requirement	3	Direct
PHYS 241	Electricity, Magnetism, and Light	5	PHYS 212	General Education (GN)	4	Direct
SOC 101	Introduction to Sociology	3	SOC 1	General Education (GS)	3	Direct
MATH 272	Differential Equations	4	MATH 251	Major Requirement	4	Direct
ENGR 222	Dynamics	3	E MCH 212	Major Requirement	3	Direct
CSCI 111	Computer Science I	4	CMPSC 121	Major Requirement	4	Direct
Rogersen en roger gehieft g Gebeuren en roger gehieft g	Total CCP Credits	71		Total PSH Credits	67	

.

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.