Associate in Science in Chemistry [Note 1]
at Harrisburg Area Community College
to Bachelor of Science in Chemistry
at Temple University College of Science & Technology
(Effective Fall 2021)

HACC Recommended Course			Temple University Equivalent	
First Semester		***Credits***	***First Semester***	
COMM 101	Effective Speaking	3	CSI 1111	Public Speaking
ENGL 101	English Composition I	3	ENG 0802	Analytic Reading & Writing
FYS Elective	First Year Seminar	1	NT [Note 2]	Non-Transferable Course
MATH 121	Calculus I	4	MATH 1041	Calculus I
CHEM 101	General Inorganic Chemistry I	4	CHEM 1031/ CHEM 1033	General Chemistry I/ General Chemistry Laboratory I
	Semester Total:	**15**		
Second Semester			***Second Semester***	
CHEM 102	General Inorganic Chemistry II	4	CHEM 1032/ CHEM 1034	General Chemistry II/ General Chemistry Laboratory II
ENGL 102 OR ENGL 104	English Composition II OR Technical Writing	3	ENG L*** OR ENG 2008	Lower Level Elective- ENG OR Technical Writing
Humanities/Arts Elective	See HACC requirements [Note 3]	3		Dependent upon course selection [Note 7]
MATH 122	Calculus II	4	MATH 1042	Calculus II
Social/Behavioral Science Elective	See HACC requirements [Note 4]	3		Dependent upon course selection [Note 7]
	Semester Total:	**17**		
Third Semester			***Third Semester***	
CHEM 203	Organic Chemistry I	4	CHEM 2201/ CHEM 2203	Organic Chemistry I/ Organic Chemistry Laboratory I
PHYS 211	Physics for Engineers & Scientists I	4	PHYS 1061	Elementary Classical Physics I
Transfer Elective	See HACC requirements [Note 5]	3		Dependent upon course selection [Note 7]
Transfer Elective	**Recommended: MATH 221 Calculus III** [Note 6]	4	MATH 2043	Calculus III
	Semester Total:	**15**		
Fourth Semester			***Fourth Semester***	
CHEM 204	Organic Chemistry II	4	CHEM 2202/ CHEM 2204	Organic Chemistry II/ Organic Chemistry Laboratory II
PHYS 212	Physics for Engineers & Scientists II	4	PHYS 1062	Elementary Classical Physics II
Transfer Elective	See HACC requirements [Note 5]	3		Dependent upon course selection [Note 7]
Transfer Elective	See HACC requirements [Note 5]	3		Dependent upon course selection [Note 7]
Wellness Elective	See HACC requirements	1		Dependent upon course selection [Note 7]
	Semester Total:	**15**		
	Total Credits Taken	**62**		

Notes:

1. Students who transfer to Temple with an Associate in Science in Chemistry have satisfied the terms of the Temple-HACC GenEd-to-GenEd transfer agreement and have completed the General Education requirements to graduate from Temple University.
2. NT stands for Non-Transferable. Non-transferable courses will not transfer to Temple for credit.
3. It is strongly recommended students select a Humanities/Arts Elective that transfers to a course within any CST/CLA/ENGR department at Temple. Students who transfer without this course may need additional time to degree completion. To see how courses might transfer, consult Temple's Transfer Equivalency Tool: http://admissions.temple.edu/transfer-equivlaency-tool.
4. It is strongly recommended students select a Social and Behavioral Science Elective that transfers to a course within any CST/CLA/ENGR department at Temple. Students who transfer without this course may need additional time to degree completion. To see how courses might transfer, consult Temple's Transfer Equivalency Tool: http://admissions.temple.edu/transfer-equivlaency-tool.
5. It is strongly recommended students select Transfer Electives that transfer to courses within any CST/CLA/ENGR department at Temple. Students who transfer without these courses may need additional time to degree completion. To see how courses might transfer, consult Temple's Transfer Equivalency Tool: http://admissions.temple.edu/transfer-equivlaency-tool.
6. It is strongly recommended that students select HACC MAT 221: Calculus III to satisfy a Transfer Elective at HACC. MAT 221: Calculus III transfers to Temple as MATH 2043: Calculus III and satisfies a major requirement. Students transferring without MATH 2043 may need additional time to degree completion.
7. To see how courses might transfer, consult Temple's Transfer Equivalency Tool: http://admissions.temple.edu/transfer-equivlaency-tool. Courses not included in the tool may transfer.

If the suggested classes are successfully completed at Harrisburg Area Community College and an Associates in Science in Chemistry degree is awarded, the remaining four semesters for the **Bachelor of Science in Chemistry** Note a, Note b are as follows:

Remaining Requirements at Temple University		
Fifth Semester		***Credits***
SCTC 2001	College of Science & Technology Transfer Seminar	1
CHEM 3103	Techniques of Chemical Measurement I	3
CHEM 3105	Introduction to Chemical Research Techniques	1
CHEM 3301	Physical Chemistry Lecture I Note c	3
FREE ELECTIVE	Free Elective Credits Note d	4
FREE ELECTIVE	Free Elective Credits Note d	3
	Semester Total:	**15**
Sixth Semester		
CHEM 3302	Physical Chemistry Lecture II	3
CHEM 3397	Physical Chemistry Laboratory I (WI)	2
CHEM 3001	Inorganic Chemistry	3
FREE ELECTIVE	Free Elective Credits Note d	3
FREE ELECTIVE	Free Elective Credits Note d	4
	Semester Total:	**15**
Seventh Semester		
CHEM 3398	Physical Chemistry Laboratory II (WI)	2
CHEM 4002+	Advanced Chemistry Course 4002 or above	3-4
ADVANCED SCIENCE	Advanced Science Course Note e	3-4
FREE ELECTIVE	Free Elective Credits Note d	3-4
FREE ELECTIVE	Free Elective Credits Note d	3-4
	Semester Total:	**14-18**
Eighth Semester		
CHEM 4196	Techniques of Chemical Measurement II (WI)	5
CHEM 4002+	Advanced Chemistry Course 4002 or above	3-4
ADVANCED SCIENCE	Advanced Science Course Note e	3-4
FREE ELECTIVE	Free Elective Credits Note d	3-4
	Semester Total:	**14-17**
	Credits transferred as part of the Associate in Science in Chemistry at HACC:	**61**
	Remaining Bachelor of Science in Chemistry Requirements to complete at Temple:	**58-65** Note a
	Total Credits Completed to Satisfy the Requirements for the Bachelor of Science in Chemistry:	**123** Note a, Note b

Notes: *Students following this plan are under the GenEd-to-GenEd General Education program.*

a) To earn a CST baccalaureate degree, a student must complete a minimum of 123 credits, including: 90 credits in CST/CLA/ENGR courses, 45 credits of which must be at the upper level (numbered 2000-4999).

b) Per the Residency Requirement, students must complete at least half of the major requirements at Temple; 9 major courses and at least 7 major courses in the Chemistry department must be completed at Temple. Temple University requires that all undergraduate degree candidates complete 45 hours of the last 60 hours of the degree or program as matriculated students at Temple University. If a matriculated student previously took Temple courses on a non-matriculated basis, those courses are counted towards this requirement.

c) Students who do not transfer MATH 2043: Calculus III to Temple by selecting MAT 221: Calculus III at HACCC must take MATH 2043 in the fifth semester at Temple to satisfy a prerequisite requirement for CHEM 3301: Physical Chemistry Lecture I. Students transferring without MATH 2043 may need additional time to degree completion.

d) Students who completed Core coursework at HACC outside of CST/CLA/ENGR department/subject areas may have additional CLA/CST/ENGR credits to complete in lieu of free elective credits during their time at Temple University to reach 90 total CST/CLA/ENGR credits required to graduate with a BS in Chemistry. Consult with an academic advisor to confirm credits earned/remaining.

e) Two advanced science courses are required in the BS in Chemistry major at Temple; additional pre-requisite coursework/time to degree completion may be required depending on elective selection. Advanced Chemistry and Advanced Science courses may be 4 credits which can change the total number of free elective credits required to be completed at Temple. Consult the Undergraduate Bulletin for a comprehensive list of electives

Inquiries about the undergraduate programs and application are handled through the Office of Admissions (Phone: 215-204-4900; Email: admissions@temple.edu).