Associate of Arts Degree to BS in Chemistry

St. Charles Community College students who plan to transfer to Truman State University with the Associate of Arts degree are strongly encouraged to prepare for transfer by completing the courses listed below. By following this plan for degree completion, students are assured that they will be able to transfer without loss of credit or duplication of courses, that they will complete prerequisites for later course work, and that they will be prepared to make a smooth transition from St. Charles to Truman.

Students who complete the Associate of Arts degree will fulfill the Essential Skills, Modes of Inquiry, Truman Week, and Intercultural requirements of Truman’s Liberal Studies Program. Transfer students must fulfill all other degree requirements that are required of native Truman students.

Students who do not complete the courses as listed on this plan or who transfer without the Associate of Arts degree will have their coursework evaluated and applied to degree requirements on a course-by-course basis.

Students are recommended to complete the following courses to fulfill requirements for their Associate of Arts degree at St. Charles Community College:

Communication – 9 credit hours

- ENG 101 English Composition I
- ENG 102 English Composition II
- SPE 101 Oral Communication

Social Science – 9 credit hours

Complete one course from Group I, and one course from Group II. Select the third course from Group I, II, or III. Students must fulfill the state statute requirements for the United States and Missouri Constitutions.

Group I

- HIS 101 U.S. History to 1877
- HIS 102 U.S. History Since 1877
- HIS 115 U.S. History Since 1945 (elective at Truman but does fulfill MO Statute)
- HIS 270 History of Missouri
- POL 101 American Government
- POL 102 State and Local Government

Group II

- ANT xxx Any ANT course
- CRJ 140 Introduction to Criminal Justice System
- ECO 100 Survey Economics
- ECO 110 Principles of Macroeconomics
- ECO 120 Principles of Microeconomics
- GEO xxx Any GEO course
- PSY 101 Introduction to Psychology
- SOC 101 Introduction to Sociology
SOC 102 Introduction to Sociological Theory

**Group III**
One additional course from Group I or II  
**OR**
HIS xxx Any HIS course  
POL xxx Any POL course

**Humanities – 9 credit hours**

Complete one course from Group I, one course from Group II, and one additional course from Group I or Group II.

**Group I**
ART 101 Art Appreciation  
ART 150 Survey of Western Art History I: Prehistory to End of the Middle Ages  
ART 151 Survey of Western Art History II: Renaissance to the Twentieth Century  
ART 160 Art History II (formerly called Modern and Contemporary Art History)  
ART 170 Design I  
MUS 110 American Music Appreciation (elective but Fine Art Mode at Truman)  
MUS 111 Music Appreciation  
MUS 112 Jazz Appreciation  
MUS 234 Jazz History  
THE 122 Introduction to the Theater

**Group II**  
Taking two courses in the same foreign language will apply toward the foreign language requirement for the Chemistry major.  
FL xxx Any FL course  
LIT xxx Any LIT course  
PHL xxx Any PHL course

**Multicultural/Valuing – 3 credit hours**

Complete one course from the following:
FL 101 Foreign Language and Culture I  
FL 102 Foreign Language and Culture II  
FL 201 Foreign Language and Culture III  
FL 202 Foreign Language and Culture IV  
**OR**
ANT 102 Intro to Cultural Anthropology  
ANT 151 World Archaeology  
ANT 202 Current Debates in Anthropology  
ESL 102 ESL: Intermediate Composition for Non-Native Speakers  
GEO 100 Principles of Geography  
HIS 145 Western Civilization, Ancient and Medieval Heritage  
HIS 146 Western Civilizations, Modern European Heritage  
LIT 200 World Mythology
LIT 271    Contemporary Voices of Global Literature
LIT 272    World Literature: Ancient World Through the Renaissance
LIT 273    World Literature: Enlightenment to the 20th Century
MUS 111    Music Appreciation
PHL 201    World Religion
POL 201    International Relations
POL 210    Comparative Politics
POL 255    European Politics and Culture

Mathematics – 5 credit hours

MAT 180    Calculus and Analytic Geometry I

Natural Science – 9 credit hours

Complete one course from Group I and one course from Group II including at least one lab

**Although only one lab is required for the AA degree, this major requires CHM 110/113 or CHM 115 to meet the major requirements at Truman. If interested in Pre-Medicine or Biochemistry, a lab with a Group I course would be preferred as well (as marked below).

**Group I

BIO 101/103 General Biology I and Lab (**Preferred for Pre-Medicine)
OR
BIO 150 General Biology I and Lab (**Preferred for Pre-Medicine)
BIO 105/106 Essentials of Biology and Lab
BIO 125/127 General Botany and Lab
BIO 160 General Botany and Lab

**Group II

CHM 110/113 General Chemistry I and Lab
OR
CHM 115 General Chemistry I

Computer Literacy Requirement – 3 credit hours

Complete one course from the following:

BAS 103 Microcomputer Applications
CPT 103 Microcomputer Applications
CPT 115 Introduction to Data Processing
EDU 220 Educational Technology

Capstone – 1 credit hour

COL 299 Sophomore Portfolio Assessment

Transferable Major Field Requirements – 19+ credit hours
From the following courses, choose courses to total 64 credits for the degree.
CHM 111/114  General Chemistry II and Lab
OR
CHM 116  General Chemistry II
CHM 240  Organic Chemistry I
CHM 243  Organic Chemistry I Laboratory
CHM 241  Organic Chemistry II

Satisfactorily complete the first year of a single foreign language (Language and Culture II), or demonstrate elementary proficiency as determined by a CLEP examination.
FL 102  Foreign Language and Culture II

Total credits required for the Associate of Arts degree: 64

After completing the Associate of Arts degree at St. Charles Community College, students will then complete the following courses at Truman State University to earn the Bachelor of Science degree in Chemistry. Students may transfer any of the following 100-200 level equivalent coursework from SCC provided the 28 hours residency requirement, the 45 hours of Truman coursework, and the major hour requirements for Truman are met.

Junior Interdisciplinary Writing-Enhanced Seminar (JINS) – 3 credit hours

Bachelor of Science Requirements – 7-8 hours

MATH 264  Analytic Geometry & Calculus III
PHYS 186  College Physics II

OR
PHYS 196  Physics with Calculus II

Major Requirements – 36-48 hours

Part I: Required Support – 9-10 credit hours
MATH 263  Analytic Geometry & Calculus II
PHYS 185  College Physics I

OR
PHYS 195  Physics with Calculus I

Part II: Major Requirements – 27-38 credit hours
CHEM 222  Introduction to Quantitative Analysis
CHEM 322  Instrumental Analysis
CHEM 323  Physical Chemistry I
CHEM 324  Physical Chemistry I Lab
CHEM 325  Physical Chemistry II
CHEM 326  Physical Chemistry II Lab
CHEM 345  Junior Chemistry Seminar
CHEM 421  Biochemistry  
CHEM 445  Senior Chemistry Seminar  
CHEM 475  Inorganic Chemistry  

One advanced chemistry course and a minimum of two credit hours are required. Students select from the following list:  
CHEM 422  Advanced Topics in Organic Chemistry  
CHEM 430  Advanced Physical Chemistry  
CHEM 431  Advanced Analytical Chemistry  
CHEM 443  Chemistry Research III  
CHEM 476  Advanced Inorganic Chemistry  
CHEM 518  Advanced Topics (Topic)  

Writing Enhanced Requirement  

Complete at least two additional courses at Truman, in addition to the JINS course, that are listed as Writing-Enhanced. These courses may be used to fulfill other requirements.

**Total credits required for the Baccalaureate of Science degree: 120**

Additional Information:

Students completing the University’s Bachelor of Science program in chemistry as described in this catalog meet the American Chemical Society (ACS) requirements for certification upon graduation. Specific questions about the ACS certification requirements may be addressed to Dr. Vaughan Pultz, the departmental ACS Certification Officer, or Dr. Dana Delaware, the Chemistry Department Chairman.

Any student obtaining a bachelor’s degree in chemistry from Truman must:

1. Complete 12 hours of 300-level or above chemistry credits at Truman;  
2. Achieve at least a “C” in each of the courses listed as Major Requirements. A minimum GPA of 2.0, with no more than 5 credit hours of “D,” is required for all courses listed previously as Required Support and Bachelor of Science Requirements;  
3. Score at or above the 20th percentile on the nationally-normed senior exam (MFAT);  
4. Complete the University’s Senior Portfolio Project.

Minimum GPA Required: 2.0  
Residency Requirements: For a Truman degree, at least 45 hours of credit must be completed in residence at Truman, including at least 15 hours of coursework in the major. In addition, the last 28 hours applied toward the degree must be completed in residence at Truman. Students must also complete at least 40 hours at 300-level or above.

SCC Contact: Student Development Office, 636-922-8241 or 8246  
Truman Contact: Erin Shaw 660-785-5146, Kimberly Titus 660-785-4143, or Dr. Dana Delaware, 660-785-4598  
Location: Kirksville, Missouri