

CHEMISTRY

PROGRAM

- Associate in Science for Transfer (A.S.-T)



**HARTNELL
COLLEGE**

DESCRIPTION

The Chemistry program at Hartnell College is designed to meet the needs of the diverse community of interests served by the community college. A full program of chemistry for the aspiring professional scientist is offered through general chemistry and a two-semester course in organic chemistry. A separate track is offered for nursing and allied health students which includes general inorganic, organic and biochemistry. The Chemistry discipline also has a strong commitment to the student with little or no prior chemistry background. The entire program is taught with a strong laboratory emphasis, and in the more advanced classes, students receive hands-on experience with a wide variety of instruments.

Four-year graduates in chemistry are qualified for positions in research, industry, education, engineering, and the allied medical fields.

The Associate in Science degree in Chemistry for Transfer provides a clearly articulated curricular track for students who wish to transfer to baccalaureate degree programs at a California State University (CSU) campus. For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Biochemist
- Chemical Laboratory Technician
- Chemist
- Clinical Researchers
- Food Chemist
- Hydrologist
- Molecular Biologist
- Natural Science Manager
- Organic Chemist
- Pharmacologist
- Plastic Engineer
- Pollution Control Chemist
- Product Tester
- Quality Assurance Manager
- Soil Scientist
- Teacher/Professor
- Toxicologist

TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree may differ from those needed to prepare for transfer. Students who plan to transfer to a four-year college or university should schedule an appointment with a Hartnell College counselor to develop a student education plan before beginning their program.

TRANSFER RESOURCES

www.ASSIST.org – CSU and UC Articulation Agreements and Major Search Engine

CSU System Information -
<http://www2.calstate.edu>

FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that Hartnell College offers a full array of financial aid programs, federal loan programs, and fee waivers.

<https://www.hartnell.edu/students/fa/net-price-calculator.html>

CHEMISTRY (AST.CHM)

ASSOCIATE IN SCIENCE FOR TRANSFER

Program Outcomes: Upon successful completion of this program a student will be able to:

- apply appropriate chemical theories, concepts, principles, methods, and laboratory skills to relevant science and engineering settings.
- demonstrate competence in chemistry laboratory techniques and experimental methods.

Required Major Courses (36 units)

<input type="checkbox"/>	CHM-1A – General Chemistry I	5.0
<input type="checkbox"/>	CHM-1B – General Chemistry II	5.0
<input type="checkbox"/>	CHM-12A – Organic Chemistry I	5.0
<input type="checkbox"/>	CHM-12B – Organic Chemistry II	5.0
<input type="checkbox"/>	PHY-4A – General Physics/Mechanics	4.0
<input type="checkbox"/>	PHY-4B – General Physics/Electricity & Magnetism	4.0
<input type="checkbox"/>	MAT-3A – Analytic Geometry and Calculus I	4.0
<input type="checkbox"/>	MAT-3B – Analytic Geometry and Calculus II	4.0

Recommended Major Electives (None Required)

<input type="checkbox"/>	MAT-3C – Analytic Geometry and Calculus III	4.0
<input type="checkbox"/>	MAT-4 – Linear Algebra	3.0
<input type="checkbox"/>	MAT-5 – Differential Equations	3.0
<input type="checkbox"/>	PHY-4C – General Physics/Waves, Heat, Light	4.0

SUBTOTAL: 36 UNITS

General Education – Required Courses

Students must complete one of the following General Education Plans:

IGETC for STEM (see page 74) 31 units

Students can double-count required courses and courses for General Education

■ Electives (Courses Numbered 1-99) required when degree units plus GE units total fewer than 60.

TOTAL: 60 UNITS



**A Degree With A
Guarantee.com**
*Associate Degree
for Transfer*

In order to earn this degree, students must complete the Associate Degree for Transfer Requirements:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University GE – Breadth Requirements (CSU GE-Breadth).
 - b. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0

ADTs include (AA-T) and (AS-T) degrees. The law authorizing these degrees also requires that students must earn a “C” or better in all courses required for the major or area of emphasis. A “P” (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.