CHEMISTRY (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Chemistry for Transfer (AS-T)

DESCRIPTION
Chemistry is the study of matter and its transformations. This curriculum provides the beginning basics of a two-year transfer program with emphasis on the chemical nature of matter. This program fulfills the lower division requirements for such majors as chemistry, dentistry, medicine, pharmacy, and environmental science.

The Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

PROGRAM LEARNING OUTCOMES
1. Demonstrate critical thinking skills related to the scientific methods such as hypothesis development, experimentation, and data interpretation.
2. Articulate fundamental chemical concepts and knowledge as related to natural and chemical phenomena at large.
3. Perform experiments using standard laboratory glasswares and techniques used in the chemical sciences.

ASSOCIATE DEGREE PROGRAM (For Transfer)
The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete 60 semester units of CSU transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated “high-unit” major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

CAREER OPPORTUNITIES
Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Agrochemistry
- Analytical Chemistry
- Astrochemistry
- Atmospheric Chemistry
- Biochemistry
- Biotechnology
- Chemical Engineering
- Chemical Technology
- Chemical Sales
- Environmental Chemistry
- Ethnobotany
- Food Chemistry
- Forensic Science
- Materials Science
- Medicine
- Oceanography
- Organic Chemist
- Pharmaceuticals
- Physical Chemistry
- Plastics Industry
- R&D Management
- Science Writer
- Surface Chemistry
- Science Teacher
- Textile Industry

Gainful Employment: Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: http://www.imperial.edu/courses-and-programs/programs-of-study/

TRANSFER PREPARATION
Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

Transfer Resources:
- www.ASSIST.org – CSU and UC Articulation Agreements and Majors Search Engine
- www.CSUMentor.edu – CSU System Information
- www.universityofcalifornia.edu/admissions/index.html - UC System Information
- www.aiccu.edu – Association of Independent Colleges and Universities, Association of Western Colleges and Universities
- http://wiche.edu/wue - Western Undergraduate Exchange Programs

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 IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: www.imperial.edu/students/financial-aid-and-scholarships/
## ASSOCIATE DEGREE PROGRAM

**CHEMISTRY**

Associate in Science Degree in Chemistry for Transfer (AS-T) – 36.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

### REQUIREMENTS FOR THE DEGREE

I. **Units/GPA** – Must complete 60 CSU transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework. **NOTE:** While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.

II. **General Education** – Must complete the Intersegmental General Education Transfer Curriculum (IGETC) for STEM – 31 units minimum

III. **Thirty-six (36) units required for the major**

#### Required for the Major (36.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHEM 200</td>
<td>General Inorganic Chemistry I</td>
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<td>CHEM 202</td>
<td>General Inorganic Chemistry II</td>
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<td>CHEM 204</td>
<td>Organic Chemistry I</td>
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<td>CHEM 206</td>
<td>Organic Chemistry II</td>
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<td>PHYS 202</td>
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<tr>
<td>MATH 192</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 194</td>
<td>Analytic Geometry and Calculus II</td>
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</tr>
</tbody>
</table>

**Total Major Units** 36.0

**IGETC for STEM Pattern** 31.0

**Electives (as needed to reach 60 CSU transferable units)**

**Total Maximum Units:** 60.0