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# Agriculture Plant Science

## Agriculture Plant Science AS-T Degree

The Agriculture Plant Science Associate for Transfer Degree (ADT) is designed to provide students a seamless transfer to the California State University system. The degree is designed to prepare students for a baccalaureate degree in Plant Science or similar major.

This program provides knowledge of the general principles of agricultural production including soil fertility and irrigation management, tractor operation, pest control and planting, growing, harvesting and marketing of crops.

This program includes coursework required for entry-level positions and foundational knowledge required for careers as pest control advisors, certified crop advisors, farm managers, irrigation consultants, fertilizer sales, and agricultural research technician. A baccalaureate degree in Plant Science will prepare students for various careers in viticulture, horticulture and agronomy.

### Program student learning outcomes:

1. Students will identify the major plant vegetative and reproductive structures and explain plant growth and reproduction processes including respiration, photosynthesis, transpiration, growth, fertilization and fruit formation.
2. Students will integrate and apply basic plant and soil science principles to achieve sustainable plant growth and yield under diverse environmental conditions.
3. Students will explain historical, present and future challenges associated with local and global food production systems.
4. Students will apply scientific and mathematical reasoning and critical thinking skills to address practical challenges in agricultural production systems.

### Students must meet the following requirements to qualify for an Associates for Transfer Degree (ADT):

- Complete 60 semester units or 90 quarter units that are eligible for transfer to the California State University (CSU).
- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtain a minimum grade point average of 2.0.
- Minimum grade of "C" for each course in the major.
- Completion of CalGETC Requirements with a minimum grade of "C".

### Recommended Course Sequence: **Falcon Pathway: Agriculture: Plant Science AS-T Degree**

### Career and employment information may be obtained through:

- O\*Net, [www.onetonline.org](http://www.onetonline.org)
  - Labor Market, California Employment Development Department, [www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov)
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<i>Course #</i>	<i>Title</i>	<i>Units</i>
<b>Required Core Courses (18-19 Units)</b>		
SLSCI 021 ..	Introduction to Soil Science .....	4
STAT C1000	Introduction to Statistics .....	4
CHEM 002A	Introductory Chemistry .....	4
or CHEM 001A .....	General Chemistry I .....	5
AGBUS 040.	Introductory Agricultural Economics .....	3
or ECON 001B .....	Microeconomics .....	3
CRPSCI 001 .	Introduction to Plant Science .....	3
or CRPSCI 002.....	Plant Science Theory .....	3
<b>Plus 3-5 units from the course options listed below:</b>		
AG 014.....	Tractor Operations .....	3
CHEM 012A	Organic Chemistry for Science Majors I .....	3
and CHEM 012AL.....	Organic Chemistry Lab for Science Majors I .....	2
CHEM 002B	Introduction to Organic Chemistry and Biochemistry .....	4
<b>Plus 0-3 units from the courses listed below:</b>		
AET 021 ....	Ag-Irrigation Management .....	3
AGBUS 024.	Agricultural Accounting .....	3
	Total Major Units.....	21-27
	Units that may be double-counted as GE.....	10
	General Education (Cal-GETC) Units.....	34
	Elective Units.....	9-15
	<b>Total .....</b>	<b>60</b>