Programs of Study

AA = Associate in Arts Degree and AS= Associate in Science Degree (4 semesters, 60+ units)
AD-T = Associate Degree for Transfer (California State University system, 60 units)
C = Certificate of Achievement and LC = Local Certificate (1-3 semesters, short-term training)

> The 2018-2019 course catalog requires a correction. The following programs should be added or corrected as noted:

Agriculture Plant Science

Agriculture Plant Science AS-T Degree

The Associate in Science in Agriculture Plant Science for Transfer Degree 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.

In order to complete the AS-T in Agriculture Plant Science students must met the following requirements:

- Complete 60 semester units or 90 quarter units that are eligible for transfer to a California State University and include requirements for the CSU General Education Breadth or the lntersegmental General Education Transfer Curriculum;
- Complete a minimum of 18 semester or 27 quarter units in the major or area of emphasis with a grade of "C" or better in all required courses;
- Earn a minimum grade point average of 2.0.

The goals for the Associate in Science in Agriculture Plant Science for Transfer Degree are:

- The Associate in Science in Agriculture Plant Science for Transfer Degree 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 a similar major.
- Identify the major plant vegetative and reproductive structures and explain plant growth and reproduction processes including respiration, photosynthesis, transpiration, growth, fertilization and fruit formation.
- Integrate and apply basic plant and soil science principles to achieve sustainable plant growth and yield under diverse environmental conditions.
- Explain historical, present and future challenges associated with local and global food production systems.
- Apply scientific reasoning and critical thinking skills to address practical challenges in agricultural production systems.

Course #	*Title*	*Units*
Required Core Courses		
SLSCI-021	Soils	4
CHEM-002A	Introductory Chemistry	4
MATH-025	Introduction to Statistics	4
AG-014	Tractor Operation	3
CRPSCI-001	Introduction to Plant Science	3
CRPSCI-002	Plant Science Theory	3
AGBUS-040	Introductory Agricultural Economics	3
ECON-001B	Microeconomics	3
Total Major Units		31
Units to Be Double-Counted as General Education		11
CSU GE Breadth or IGETC Units		37-39
Transferrable Elective Units		19-21
	Total Units Required for AS-T Degree	**60**

Agriculture Science Technology

Agriculture Science Technology AS Degree

> The 2018-2019 course catalog requires a correction. The following program should read as follows:

The Precision Agriculture program prepares students to work with global positioning satellite (GPS) systems, geographic information system (GIS) software, automatic tractor guidance systems, variable rate chemical input applicators, surveying equipment, and related computer software. Students will learn in hands-on, real-world applications. Completing the certificate qualifies the student to enter the professional job market in the public sector as well as the agriculture industry. Units for the Precision Agriculture Certificate apply to the Associates Science Degree in Agriculture.

Upon completion of the program the student will be able to meet the following objectives:

- Students will demonstrate their ability to use agricultural technology.
- Students will understand agronomic fundamentals (soil, plant, water relationships)
- Students will demonstrate their ability to physically map using GPS and digitize field boundaries to create maps in GIS
- Students will demonstrate job readiness skills needed to obtain employment upon graduation

Students must fulfill the following requirements to qualify for an associate degree:

- Complete the Associate Degree requirements
- Complete major course requirements as specified in the catalog with a C or better
- Complete electives to reach a total of 60 degree applicable units
- Maintain a grade point average of 2.00 overall
- Complete the English and math competency requirements with a C or better

Course #	*Title*	*Units*
Required Core Courses		
AG-015X	Occupational Work Experience	1
AGBUS-015	Computer Application to Agriculture	3
SLSCI-021	Introduction to Soils	4
CRPSCI-001	Introduction to Plant Science	3
CRPSCI-002	Plant Science Theory	3
Plus at least 15 units from the courses listed below		
AG-011	Agriculture Sales and Communications	3
AG-014	Tractor Operation	3
AGBUS-040	Introductory Agricultural Economics	3
AET-10	Surveying	3
AET-015	CAD for Agriculture	3
AET-021	Ag-Irrigation Management	3
AET-022	Irrigation Evaluation and Design	4
AET-023	Advanced Irrigation Design	3
AET-024	Drip & Micro Irrigation Design & Mgmt.	3
CRPSCI-006	Introduction to Precision Farming	3
CRPSCI 008	Applications of Geospatial Technology	3
CRPSCI 017	Control and Sensor Systems in Ag	3
CRPSCI 018	Precision Ag Software	3
CRPSCI-019	Water Management/California Water	3
CRPSCI 021	Orchard Production	3
CRPSCI 023	Row Crop Production	3
CRPSCI-032	Weeds and Poisonous Plants	3
CRPSCI-036	Fertilizers and Soil Amendments	3
CRPSCI-044	Economic Entomology	3
CRPSCI-045	California Pest Control Laws & Regs	2
IMT-060	Industrial Core	3
IMT-061	Industrial Maintenance Mechanic I	3
IMT-062	Industrial Maintenance Mechanic II	3
WT-070	Introduction to Certified Welding	2.5
	Total	**26**

English as a Second Language

English as a Second Language Local Certificate

The ESL Certificate of Competency is designed to prepare students to communicate, write, and read in the English language. Students will have an opportunity to show their employers and future employers that they have an understanding and knowledge of the English language. Program student learning outcomes:

- The student will verbally communicate, by using appropriate beginning level grammar, vocabulary, organization, and clear pronunciation.
- The student will carry a conversation based on a contemporary issue and will present new information to the class.
- The student will develop a paragraph using lower-intermediate level grammar.
- The student will create a presentation about their background, job skills, and educational experiences..

The ESL Certificate of Competency program is a certificate program to help English Language Learners in their present and future goals. The certificate will show that they have basic English skills in conversation, writing, and reading. The curriculum is designed to help students show employers that they have a basic understanding of the English language which will help them in their place of employment. Completion of the certificate will help students be marketable in the job market.

Upon completion of the program the student will be able to meet the following objectives: Upon completion of the program the student will be able to meet the following objectives:

- Introduce basic structure and example for questions with 'be'; 'do'; 'wh-question + be' (ex: Who is happy?) and 'wh-question + do' (ex: What do you eat for dinner?) in the present tense;
- Role-play short conversations practicing with a classmate;
- Learn a simple grammatical lesson online (provided), complete the online quiz and present that lesson to the class;
- Understand and produce structure and an example for questions with 'be'; 'do'; 'wh-questions + be' (ex: Who is/was happy?) and 'wh-questions + do' (ex: What do/did you eat for dinner?) in the present and past tense;
- Speak extemporaneously for 2-3 minutes on a given topic;
- Create, write and deliver short conversations with the appropriate tense, subject- verb agreement and frequency adverb with a classmate;
- Understand and use regular and irregular verbs in affirmative and negative sentences both in speaking, reading, and writing;
- Learn a simple grammatical lesson online (provided), complete the on line quiz and present that lesson to the class;
- Read a short passage and identify the topic, main ideas, and supporting details;
- Outline textbook chapter for lesson analysis in English;
- Construct an interview with 'be' and 'do+ base verb' questions and answers;
- Write present and past tense paragraphs respectively;
- Read articles for comprehension, vocabulary, and pronunciation;
- Complete weekly timed readings rating words per minute and minimum comprehension errors;
- Provide understanding, critical thinking, and practical skills in basic communication settings;

Communicate one to one, one to many, and speaker to audience;

Students will engage in interpersonal exercises to use communication skills such as listening, paraphrasing, describing feelings, decision-making, perception checking, and verbal and non-verbal communication.

Course #	*Title*	*Units*
Required Core Courses		
NC 120	Beg Reading, Writing & Speaking Skills	N/A
NC 125	Inter Read, Writing & Speaking	N/A
NC 130	Advanded Reading, Writing & Speaking	N/A
NC 135	Adv Comm Skills for Life & Car	N/A
	Total Hours	**216**

Transfer Studies – Full Intersegmental General Education Transfer (IGETC) Curriculum Certification: UC

Transfer Studies – Full IGETC Certification: UC, Certificate of Achievement

The Intersegmental General Education Transfer Curriculum (IGETC) Full Certification for University of California (UC) provides students the ability to fulfill in-state, public university lower-division general education requirements before transferring. It is strongly recommended that students complete the IGETC prior to transfer to allow more flexibility in class selection at the university and timely progress to degree completion. All UC and CSU campuses will accept the completed IGETC to satisfy all lower-division general education requirements, however, individual colleges or majors within a CSU or UC campus may not accept IGETC for meeting general education.

Upon completion of the Transfer Studies - Full IGETC Certification: UC, the student will be able to:

- Demonstrate critical thinking through literary works and written compositions
- Utilize quantitative analysis and have the ability to use and criticize quantitative arguments
- Analyze works of philosophical, historical, literary, aesthetic and cultural importance
- Examine social and behavioral perspectives in their contemporary, historical, and geographical settings
- Comprehend physical and biological concepts, their limitations, and the power of scientific inquiry
- Demonstrate proficiency in a language other than English

Course #	*Title*	*Units*
Required Core Courses		
Area 1A	English Composition	3
Area 1B	Critical Thinking – English Composition	3
Area 2	Math Concepts & Quantitative Reasoning	3-5
Area 3A	Arts	3
Area 3B	Humanities	3
Area 3A/B	Arts & Humanities	3
Area 4	Social & Behavioral Sciences	9
Area 5A	Physical Science	4
Area 5B	Biological Science	3-4
Area 5C	Laboratory Science	
Area 6	Language Other Than English	
	Total	**34-37**

Transfer Studies – Full Intersegmental General Education Transfer Curriculum (IGETC) Certification: CSU

Transfer Studies – Full IGETC Certification: CSU, Certificate of Achievement

The lntersegmental General Education Transfer Curriculum (IGETC} Full Certification for California State University (CSU) provides students the ability to fulfill in-state, public university lower-division general education requirements before transferring. It is strongly recommended that students complete the IGETC prior to transfer to allow more flexibility in class selection at the university and timely progress to degree completion. All UC and CSU campuses will accept the completed IGETC to satisfy all lower-division general education requirements, however, individual colleges or majors within a CSU or UC campus may not accept IGETC for meeting general education.

Upon completion of the Transfer Studies - Full lGETC Certification: CSU, the student will be able to:

- Demonstrate critical thinking through literary works and written compositions
- Utilize quantitative analysis and have the ability to use and criticize quantitative arguments
- Analyze works of philosophical, historical, literary, aesthetic and cultural importance
- Examine social and behavioral perspectives in their contemporary, historical, and geographical settings
- Comprehend physical and biological concepts, their limitations, and the power of scientific inquiry

Course #	*Title*	*Units*
Required Core Courses		
Area 1A	English Composition	3
Area 1B	Critical Thinking – English Composition	3
Area 1C	Oral Communication	3
Area 2	Math Concepts & Quantitative Reasoning	3-5
Area 3A	Arts	3
Area 3B	Humanities	3
Area 3A/B	Arts & Humanities	3
Area 4	Social & Behavioral Sciences	9
Area 5A	Physical Science	4
Area 5B	Biological Science	3-4
Area 5C	Laboratory Science	
	Total	**37-40**