

# HARTNELL COLLEGE DEGREES AND CERTIFICATES

Program	Degree	Associate	Certificate	Program	Degree	Associate	Certificate
Addiction Studies		■ AA	■	English for Multilingual Speakers			■
Administration of Justice for Transfer		■ AS-T		Beginning			■
Administration of Justice		■ AS	■	Low Intermediate			■
Advanced Automotive Technology		■ AS		Intermediate			■
Advanced Diesel Technology		■ AS		High Intermediate			■
Agriculture Business for Transfer		■ AS-T		Advanced			■
Agriculture Plant Science for Transfer		■ AS-T		Engineering		■ AS	
Agricultural Mechatronics		■ AS		Engineering Fundamentals			■
Foundations of Agricultural Mechatronics			■	English for Transfer		■ AA-T	
Agriculture with an Emphasis		■ AA		Environmental Science for Transfer		■ AS-T	
Business Emphasis			■	Film, Television, and Electronic Media		■ AS-T	
Production Emphasis			■	First Line Supervisor			■
Food Safety			■	General Studies: Arts and Humanities		■ AA	
Small Farm			■	General Studies: Social and Behavioral Sciences		■ AA	
Sustainable Crop Management			■	General Studies: STEM		■ AA	
Astronomy	■ AS			Geology for Transfer		■ AS-T	
Basic English			■	High School Equivalency			■
Biology for Transfer	■ AS-T			History for Transfer		■ AA-T	
Biology	■ AS			Kinesiology for Transfer		■ AA-T	
Business Administration 2.0 for Transfer	■ AS-T			Kinesiology		■ AS	
Business office Technology:				Intersegmental General Education Transfer (IGETC)			■
Bookkeeping			■	Law, Public Policy and Society for Transfer		■ AA-T	
Business Information Worker Level 1			■	Liberal Arts: Pathway to Health Sciences		■ AA	
Business Information Worker Level 2			■	Mathematics for Transfer		■ AS-T	
Information Processing	■ AS		■	Music for Transfer		■ AA-T	
Chemistry for Transfer	■ AS-T			Music		■ AA	■
Chicanx Studies	■ AA			Nursing:			
Communication Studies 2.0 for Transfer	■ AA-T			Registered Nursing		■ AS	
Computer Science for Transfer	■ AS-T			Vocational Nursing		■ AS	■
Computer Science and Information Systems:				Photography		■ AA	■
Computer Science Option	■ AS		■	Physics for Transfer		■ AS-T	
Cisco Certified Network Associate			■	Political Science for Transfer		■ AA-T	
Cybersecurity			■	Psychology for Transfer		■ AA-T	
Network and Security Option	■ AS		■	Public Health Science for Transfer		■ AS-T	
Technical Support			■	Respiratory Care		■ AS	
Digital Web and Mobile Development	■ AS			Social Justice for Transfer		■ AA-T	
Mobile Development Option			■	Sociology for Transfer		■ AA-T	
Web Development Option			■	Spanish for Transfer		■ AA-T	
Construction Management and Architecture	■ AS			Spanish		■ AA	
CSU/General Education Breadth			■	Studio Arts for Transfer		■ AA-T	
Digital Arts	■ AA		■	Theatre Arts for Transfer		■ AA-T	
Early Childhood Education for Transfer	■ AS-T			Theatre Arts and Cinema		■ AA	
Early Childhood Education	■ AS		■	Theatre Performance			■
Economics for Transfer	■ AA-T			Theatre Production			■
Elementary Teacher Preparation for Transfer	■ AA-T			Theatre Production and Performance			■
Emergency Medical Technician			■	Welding Technology		■ AS	■

Associate Degree (AA or AS) programs allow students the benefits of a general college education and the option of choosing occupational training, liberal arts, or concentration in a discipline in the College. The Associate in Arts for Transfer (AA-T) and the Associate in Science for Transfer (AS-T) are intended for students who plan to transfer and complete a bachelor's degree in a similar major at a CSU campus. In addition, Hartnell College offers a variety of programs designed to develop and upgrade vocational proficiency and for which Certificates of Achievement are offered.

Students must submit a Petition for Associate Degree/Certificate of Achievement to be evaluated for eligibility to be awarded a Degree or Certificate. Deadlines for filing the Petition are noted in the Schedule of Classes and are posted in the Admissions and Records Office. To be awarded a Certificate of Achievement from Hartnell College, it is required that at least half of the required number of units be taken at Hartnell College.

Not all courses required for listed programs may be offered during this catalog cycle.

Please contact a counselor for current information (831) 755-6820.

## ADDICTION STUDIES

### PROGRAMS

- Associate of Arts (A.A.)
- Certificate of Achievement



### DESCRIPTION

The Hartnell College Associate Degree in Addiction Studies provides students with the academic preparation needed for employment in the substance abuse field. The curriculum is designed to meet the California Association of Alcoholism and Drug Abuse Counselors (CAADAC) requirements and pending legislative regulations requiring 350 hours of approved alcohol and drug classroom education, 45 hours of supervised practicum and 255 hours of supervised work experience.

Students who wish to continue their course of study to a 4-year setting are recommended to complete the Associate of Arts Degree program, which includes both the general education requirements and major courses in Addiction Studies. Completion of additional requirements for transfer may be required. It is recommended that students take AOD courses in numeric order.

AOD 1-6 and 11 must be completed before enrolling in AOD 10 (Chemical Dependency Practicum Seminar) and AOD 99 (Practicum in Chemical Dependency).

Career opportunities for certified Alcohol and Drug Counselors include: counselors in social model county residential treatment programs; counselors in pre-treatment, inpatient, outpatient, and aftercare programs; counselors in hospital-based chemical dependency community prevention and education programs; recovery/relapse prevention counseling in the private sector; counselors in recovery home/sober living environments. California state laws require that individuals who are providing services in an alcohol or drug abuse setting be registered by an accredited agency that is recognized by the Department of Health Care Services. Students may obtain a registration manual, which contains information on academic requirements, procedures, forms, examination schedules, and fees by going to the CCAPP website (<https://www.ccapp.us/>) and clicking on "certification" where an order form and other information are provided.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Community Prevention & Education Counselor
- Mental Health Counselor
- Probation Officer
- Social Worker
- Substance Abuse Counselor in residential treatment programs, pre-treatment, inpatient, outpatient, and aftercare programs
- Therapist

### 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](http://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>

## ADDICTION STUDIES (AA.ADD)

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### ASSOCIATE OF ARTS

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

- demonstrate proficiency in each of the core functions and performance domains of substance abuse counselors.
- function as ethical and competent entry-level substance abuse counselors, with an understanding of and sensitivity to the diverse populations which they will serve.

#### Required Major Courses (31 units)

<input type="checkbox"/> AOD-1 – Fundamentals of Chemical Dependency	3.0
<input type="checkbox"/> AOD-2 – Pharmacology and Physiology of Alcohol and Other Drugs	3.0
<input type="checkbox"/> AOD-3 – Introduction to Case Management and Treatment Planning	3.0
<input type="checkbox"/> AOD-4 – Counseling Diverse Populations	3.0
<input type="checkbox"/> AOD-5 – Legal/Ethical Considerations and Professional Growth	3.0
<input type="checkbox"/> AOD-6 – Prevention, Education, and Relapse Prevention	3.0
<input type="checkbox"/> AOD-9 – Co-Occurring Disorders	3.0
<input type="checkbox"/> AOD-10 – Chemical Dependency Practicum Seminar	3.0
<input type="checkbox"/> AOD-11 – Individual, Group, and Family Counseling	3.0
<input type="checkbox"/> AOD-99 – Practicum in Chemical Dependency	4.0

#### Major Electives (Complete 9 units)

<input type="checkbox"/> PSY-2 – General Psychology	3.0
<input type="checkbox"/> PSY-6 – Social Psychology	3.0
<input type="checkbox"/> PSY-22 – Abnormal Psychology	3.0
<input type="checkbox"/> PSY-33 – Personal and Social Adjustment	3.0
<input type="checkbox"/> PSY-41 – Psychology of Human Relations	3.0
<input type="checkbox"/> SOC-1 – Introduction to Sociology	3.0
<input type="checkbox"/> SOC-41 – Marriage and the Family	3.0

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**SUBTOTAL: 40 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

##### HCCD GE (see page 76)

- English composition    Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

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**TOTAL: 60 UNITS**

## ADDICTION STUDIES (CT.ADD)

### CERTIFICATE OF ACHIEVEMENT

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

- demonstrate proficiency in each of the core functions and performance domains of substance abuse counselors.
- function as ethical and competent entry-level substance abuse.

#### Required Major Courses (27 units)

<input type="checkbox"/>	AOD-1 – Fundamentals of Chemical Dependency	3.0
<input type="checkbox"/>	AOD-2 – Pharmacology and Physiology of AOD	3.0
<input type="checkbox"/>	AOD-3 – Intro to Case Management and Treatment Planning	3.0
<input type="checkbox"/>	AOD-4 – Counseling Diverse Populations	3.0
<input type="checkbox"/>	AOD-5 – Legal/Ethical Considerations & Professional Growth	3.0
<input type="checkbox"/>	AOD-6 – Prevention, Education, and Relapse Prevention	3.0
<input type="checkbox"/>	AOD-9 – Co-Occurring Disorders	3.0
<input type="checkbox"/>	AOD-11- Individual, Group, and Family Counseling	3.0
<input type="checkbox"/>	PSY-2 – General Psychology	3.0

#### Major Electives (Complete 9 units)

<input type="checkbox"/>	PSY-25 – Developmental Psychology-Lifespan	3.0
<input type="checkbox"/>	PSY-33 – Personal and Social Adjustment	3.0
<input type="checkbox"/>	PSY-41 – Psychology of Human Relations	3.0

**TOTAL: 36 UNITS**

#### FINANCIAL AID

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## ADMINISTRATION OF JUSTICE

### PROGRAMS

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



### DESCRIPTION

The Associate in Science Degree in Administration of Justice for Transfer provides a clearly articulated curricular track for students who wish to transfer to baccalaureate Administration of Justice, Criminal Justice, or Criminology degree programs at a California State University (CSU) campus. This degree provides the lower division Administration of Justice major courses required at many CSUs while exposing students to the core principles and practices in the field of Administration of Justice. The AS-T degree will enable students to develop a strong foundation in the theory and practice of law enforcement and law enforcement investigation, the origin and application of criminal law, the various components of the criminal justice system, the structure of the various court systems, and trial process. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

The Administration of Justice Associate Degree program is particularly suited for students seeking employment in criminal justice and paralegal/legal assistantship, and it incorporates advanced career training, as well as supporting transfer. Criminal justice courses have a broad focus and encompass effective patrol services, the prosecution and defense of criminal offenders, and the incarceration process. Paralegal/legal assistantship courses overview the preparation of cases for court under the supervision of an attorney. The Associate degree in Administration of Justice offers specialized electives to enhance a student's career opportunities.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Attorney
- Correctional Officer
- Criminal Investigator
- Deputy Sheriff
- Detective
- Law Enforcement Agent
- Military Officer
- Parole Agent
- Paralegal/Legal Assistant
- Police Officer
- Probation Officer
- Public Defender
- Social Worker

### 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.

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# ADMINISTRATION OF JUSTICE FOR TRANSFER (AST.ADJ)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- analyze the United States legal system, describing the sources of law, the branches of government, and the federal and state course systems.
- analyze cases to ascertain legal precedents and apply them to hypothetical facts patterns.
- select and apply the appropriate peacekeeping strategy in a multicultural community.

### Required Major Courses (6 units)

- ADJ-1 – Introduction to Administration of Justice 3.0
- ADJ-3 – Concepts of Criminal Law 3.0

### Major Electives A (Complete 6 units)

- ADJ-2 – Community Relations & the Justice System 3.0
- ADJ-4 – Criminal Evidence 3.0
- ADJ-5 – Criminal Court Process 3.0
- ADJ-8 – Criminal Investigation 3.0
- ADJ-10 – Juvenile Procedure 3.0

### Major Electives B (Complete 6 units)

- ADJ-10 – Juvenile Procedures 3.0
- ADJ-51 – Criminology 3.0
- MAT-13 – Elementary Statistics 4.0
- SOC-1 – Introduction to Sociology 3.0
- PSY-2 – General Psychology 3.0

**SUBTOTAL: 18 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

# ADMINISTRATION OF JUSTICE (AS.ADJ)

## ASSOCIATE OF SCIENCE

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

- analyze the United States legal system, describing the sources of law, the branches of government, and the federal and state court systems.
- evaluate judicial opinions to determine legal precedents and apply them to hypothetical fact patterns.
- recognize constitutional principles present in the prosecution and defense of criminal offenders.
- describe the incarceration process.
- demonstrate effective law enforcement report writing skills.
- compare and contrast legal and illegal narcotics and dangerous drugs.
- select and apply the appropriate peacekeeping strategy in a multicultural community.

<b>Criminal Justice</b>	Complete 3 courses from ADJ-8, ADJ-10, ADJ-30, ADJ-33, ADJ-51
<b>Paralegal/Legal Assistant</b>	Complete ADJ-25, ADJ-34, and ADJ-36; complete as a general elective BUS-18 Legal Environment of Business

Students who have official college transcripts from an approved accredited college proving they have successfully completed a California POST Basic Police Academy, or official documents proving successful completion of a California Basic Correctional Officer Academy or a California Highway Patrol Academy shall receive credit for ADJ 1 and all major elective courses necessary for the Administration of Justice Degree program.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

### Required Major Courses (21 units)

- ADJ-1 – Introduction to Administration of Justice 3.0
- ADJ-2 – Community Relations & the Justice System 3.0
- ADJ-3 – Concepts of Criminal Law 3.0
- ADJ-4 – Criminal Evidence 3.0
- ADJ-5 – Criminal Court Process 3.0
- ADJ-11 – Law Enforcement Report Writing 3.0
- ADJ-21A – Narcotics and Dangerous Drugs 3.0

### Major Electives (Complete 9 units)

- ADJ-8 – Criminal Investigation 3.0
- ADJ-10 – Juvenile Procedures 3.0
- ADJ-25 – Introduction to Paralegal/Legal Assistantship 3.0
- ADJ-30 – Sexual Assault Investigation 3.0
- ADJ-33 – Constitutional Law for Criminal Justice 3.0
- ADJ-34 – Civil Litigation 3.0
- ADJ-36 – Legal Research and Writing 3.0
- ADJ-51 – Criminology 3.0
- ADJ-102 – PC 832 Arrest and Firearms 3.5

**SUBTOTAL: 30 UNITS**

### General Education – Required Courses

Students must complete one of the following General Education Plans:

**HCCD GE** (see page 76)

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.

**TOTAL: 60 UNITS**

# ADMINISTRATION OF JUSTICE (CT.ADJ)

## CERTIFICATE OF ACHIEVEMENT

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

- analyze the United States legal system, describing the sources of law, the branches of government, and the federal and state court systems.
- evaluate judicial opinions to determine legal precedents and apply them to hypothetical fact patterns.
- recognize constitutional principles present in the prosecution and defense of criminal offenders.
- describe the incarceration process.
- demonstrate effective law enforcement report writing skills.
- compare and contrast legal and illegal narcotics and dangerous drugs.
- select and apply the appropriate peacekeeping strategy in a multicultural community.

### Required Major Courses (21 units)

<input type="checkbox"/>	ADJ-1 – Introduction to Administration of Justice	3.0
<input type="checkbox"/>	ADJ-2 – Community Relation & the Justice System	3.0
<input type="checkbox"/>	ADJ-3 – Concepts of Criminal Law	3.0
<input type="checkbox"/>	ADJ-4 – Criminal Evidence	3.0
<input type="checkbox"/>	ADJ-5 – Criminal Court Process	3.0
<input type="checkbox"/>	ADJ-11 – Law Enforcement Report Writing	3.0
<input type="checkbox"/>	ADJ-21A – Narcotics and Dangerous Drugs	3.0

**TOTAL: 21 UNITS**

### FINANCIAL AID

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



# ADVANCED AUTOMOTIVE TECHNOLOGY

## PROGRAM

- Associate of Science (A.S.)



### DESCRIPTION

The Advanced Automotive Technology Program is designed to provide students with the skills and knowledge necessary to succeed as technicians in a professional auto repair shop. The curriculum provides classroom and hands-on learning experience in a state-of-the-art laboratory which provides students with the opportunity to apply the basic theories of automotive technology. Diagnosis and repair procedures performed on vehicles enable students to develop the skill levels required for placement in the automotive technology industry. Additionally, the program also offers Snap-On certifications that are industry recognized.

### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Automotive Mechanic
- Diesel Service Technician
- Shop Foreman
- Small Engine Mechanic
- Tractor Engine Mechanic
- Transmission Specialist
- Truck Technician

# ADVANCED AUTOMOTIVE TECHNOLOGY (AS.AAT)

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## ASSOCIATE OF SCIENCE

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

- apply knowledge of personal and environmental safety practices to promote a safe work environment and environmental responsibility.
- apply appropriate automotive theories, concepts, principles, methods, and laboratory skills to an automotive repair setting.
- research applicable vehicle and service information using automotive manuals in print and electronic formats, pertinent websites, and diagnostic equipment to identify, analyze, propose correction, and correct problems of all major automotive systems.
- acquire Snap-On industry-recognized certifications.
- demonstrate basic computer literacy skills.

### Required Major Courses (44 units)

<input type="checkbox"/>	AAT-100 – Introduction to Automotive Repair	4.0
<input type="checkbox"/>	AAT-101 – Engine Rebuild	4.0
<input type="checkbox"/>	AAT-110 – Climate Control	4.0
<input type="checkbox"/>	AAT-120 – Electrical and Electronic Systems	4.0
<input type="checkbox"/>	AAT-121 – Electronic Systems and Controls	4.0
<input type="checkbox"/>	AAT-130 – Engine Performance	4.0
<input type="checkbox"/>	AAT-140 – Brake Systems	4.0
<input type="checkbox"/>	AAT-141 – Steering and Suspension	4.0
<input type="checkbox"/>	AAT-150 – Manual Transmissions and Drivetrain	4.0
<input type="checkbox"/>	AAT-151 – Automatic Transmissions	4.0
<input type="checkbox"/>	BUS-43 – Business Info Systems and Info Literacy	4.0
<b>OR</b>		
<input type="checkbox"/>	BUS-50 – Introduction to PC Applications	4.0

**SUBTOTAL: 44 UNITS**

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### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- English composition     Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

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**TOTAL: 65 UNITS**

## ADVANCED DIESEL TECHNOLOGY

### PROGRAM

- Associate of Science (A.S.)



### DESCRIPTION

The Advanced Diesel Technology program is designed to provide students with the skills and knowledge required to succeed as technicians in the field of heavy-duty diesel equipment, transportation and agriculture industries, or related industries. The curriculum provides both theoretical and hands-on learning experiences that provide students with the opportunity to apply the learned skills in a variety of different areas, such as transportation, and agriculture equipment. Diagnosis and repair procedures performed on heavy-duty diesel equipment enable students to develop the skills required for placement in the heavy duty diesel technology industry.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Automotive Service Technician and Mechanic
- Bus and Truck Mechanic
- Diesel Engine Specialist
- Diesel Service Technician
- Engine Builder
- Industrial Repair
- Locomotive Service and Repair
- Parts Manager
- Retail Service Technician
- Service Advisor
- Shop Manager
- Specialty Shop Technician

### 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.

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# ADVANCED DIESEL TECHNOLOGY (AS.ADT)

## ASSOCIATE OF SCIENCE

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

- accurately complete work orders that relate to equipment/engines/motors manifesting problems, suggest corrective actions, and complete repairs.
- apply knowledge of personal and environmental safety practices to promote a safe work environment and environmental responsibility.
- research applicable equipment and service information using heavy-duty equipment manuals in print and electronic formats, pertinent websites, and diagnostic equipment to identify, analyze, and correct problems of all major heavy-duty equipment systems.
- acquire Snap-on industry-recognized industry recognized certifications.
- demonstrate basic computer literacy skills.

### Required Major Courses (44 units)

<input type="checkbox"/> ADT-100 – Diesel Engine Technology	4.0
<input type="checkbox"/> ADT-101 – Diesel Engine Rebuild	4.0
<input type="checkbox"/> ADT-110 – Electrical and Electronic Systems	4.0
<input type="checkbox"/> ADT-111 – Electrical Systems and Controls	4.0
<input type="checkbox"/> ADT-120 – Climate Control	4.0
<input type="checkbox"/> ADT-121 – Preventative Maintenance	4.0
<input type="checkbox"/> ADT-130 – Brake Systems	4.0
<input type="checkbox"/> ADT-131 – Steering and Suspension Systems	4.0
<input type="checkbox"/> ADT-140 – Power Drivetrain	4.0
<input type="checkbox"/> ADT-141 – Automatic Transmissions	4.0
<input type="checkbox"/> BUS-43 – Business Info Systems and Info Literacy	4.0
<b>OR</b>	
<input type="checkbox"/> BUS-50 – Introduction to PC Applications	4.0

**SUBTOTAL: 44 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

**TOTAL: 65 UNITS**

# AGRICULTURAL MECHATRONICS

## PROGRAMS

- Associate of Science Degree
- Certificate of Achievement



### DESCRIPTION

The **Associate's Degree in Agricultural Mechatronics** will prepare students to work as a skilled mechatronics technician in agriculture. Students will learn how to install, repair, calibrate, and troubleshoot mechatronics or electromechanical systems, including automation and robotics equipment focusing on indoor value-added food processing. Students will have the opportunity to earn third-party industry certifications from OSHA, NCCER, and NC3 (Festo, Snap-On, Starrett, Greenlee, Rigid, Trane, Lincoln, 3M, and more). Additionally, students may have transfer opportunities to pursue an undergraduate degree in Ag Systems Management

**The Foundations of Agricultural Mechatronics Certificate of Achievement** will introduce fundamental theory and skills used to perform the tasks of a skilled maintenance mechanic who works with mechatronics, or electro-mechanical systems, including automation and robotics equipment in both indoor value-added food processing and outdoor automated farming and harvesting. Students will have the opportunity to earn third-party industry certifications from OSHA, NCCER, and NC3 (Festo, Snap-On, Starrett, Greenlee, Rigid, Trane, Lincoln, 3M, and more). Students will also be prepared to pursue the Agricultural Mechatronics Associates Degree.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Industrial Machinery Mechanics
- Electro-Mechanical Technician
- Robotics Technician

### 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>

# AGRICULTURAL MECHATRONICS (AS.MECHA)

## ASSOCIATE OF SCIENCE DEGREE

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

- practice safe working practice while working with agricultural mechatronics systems.
- design and install electrical systems and plumbing systems used in agriculture.
- install, calibrate, maintain, troubleshoot, and repair mechanical drive, fluid power, process control, electronic, and electrical systems used in agriculture.
- maintain smart manufacturing systems involving Supervisory Control and Data Acquisition (SCADA), network and communication systems, Manufacturing Execution Systems (MES), and Industry 4.0.

### Required Major Courses (18 units)

<input type="checkbox"/>	MFGT-110, Industrial Safety	2.0
<input type="checkbox"/>	MFGT-111A, Fundamentals of Agricultural Mechatronics A	2.0
<input type="checkbox"/>	MFGT-111B, Fundamentals of Agricultural Mechatronics B	2.0
<input type="checkbox"/>	MFGT-112A, Intermediate Agricultural Mechatronics A	2.0
<input type="checkbox"/>	MFGT-112B, Intermediate Agricultural Mechatronics B	2.0
<input type="checkbox"/>	MFGT-113, Applied Agricultural Mechatronics-Processing	4.0
<input type="checkbox"/>	MFGT-114, Advanced Agricultural Process Automation	4.0

### Restricted Major Electives: Select two courses (6-7 units)

<input type="checkbox"/>	ABT-57, Agriculture Computer Applications	3.0
	OR	
<input type="checkbox"/>	BUS-50, Introduction to PC Applications	4.0
<input type="checkbox"/>	MFGT-130, Introduction to Metal Fabrication	3.0
<input type="checkbox"/>	WLD-150, Introduction to Arc Welding	3.0
<input type="checkbox"/>	CMA-74, Industrial Print Reading	3.0
<input type="checkbox"/>	CMA- 81, Computer Aided Drafting and Design	3.0

### Restricted Major Electives: Select two courses (6-9.25 units)

<input type="checkbox"/>	ABT-93, Product Processing and Cooling	3.0
<input type="checkbox"/>	ABT-160, Introduction to Agriculture	3.0
<input type="checkbox"/>	MFGT-131, Intermediate Metal Fabrication	3.0
<input type="checkbox"/>	MFGT-132, Advanced metal Fabrication	3.0
<input type="checkbox"/>	MFGT-71, Agricultural and Industrial Equipment Operations	3.0
<input type="checkbox"/>	WLD-151, Introduction to GTAW/TIG Welding	3.0
<input type="checkbox"/>	WLD-154, Advanced Arc Welding	3.0
<input type="checkbox"/>	CSS-169, IT Essentials	4.0
<input type="checkbox"/>	CSS-50, Introduction to Networks: CCNA1	4.0
<input type="checkbox"/>	CMA-75, Engineering Drawing with SolidWorks	3.0
<input type="checkbox"/>	CMA-76, Computer-Aided Mechanical Drawing and Detailing	3.0
<input type="checkbox"/>	CMA-82, Computer Aided Drafting and Design II	3.0
<input type="checkbox"/>	ABT-99, Occupational Cooperative Work Experience	up to 2.25 units

**TOTAL: 30-34.25 units**

### General Education – Required Courses

Students must complete one of the following General Education Plans:

#### HCCD GE (see page 76)

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.

**TOTAL: 60 UNITS**

# FOUNDATION OF AGRICULTURAL MECHATRONICS (CT.MECHA)

## CERTIFICATE OF ACHIEVEMENT

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

- practice safe working practices while working with agricultural mechatronic systems.
- program, build, and test simple mechatronic systems, including Programmable Logic Controllers, electronic sensors, handling sequences, conveyors, sorting, pressing, and magazine operations, given agriculturally based scenarios.
- construct a variety of mechanical and electro-mechanical fluid power circuits (hydraulic and pneumatic) used in agriculture.
- design and install electrical systems and plumbing systems used in agriculture.

### Required Major Courses (10 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> MFGT-110, Industrial Safety                            | 2.0 |
| <input type="checkbox"/> MFGT-111A, Fundamentals of Agricultural Mechatronics A | 2.0 |
| <input type="checkbox"/> MFGT-111B, Fundamentals of Agricultural Mechatronics B | 2.0 |
| <input type="checkbox"/> MFGT-112A, Intermediate Agricultural Mechatronics A    | 2.0 |
| <input type="checkbox"/> MFGT-112B, Intermediate Agricultural Mechatronics B    | 2.0 |

### Major Electives: Select 2 courses (Complete 6-7 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> ABT 57, Agriculture Computer Applications    | 3.0 |
| OR  |     |
| <input type="checkbox"/> BUS 50, Introduction to PC Applications      | 4.0 |
| <input type="checkbox"/> MFGT 130, Introduction to Metal Fabrication  | 3.0 |
| <input type="checkbox"/> WLD 150, Introduction to Arc Welding         | 3.0 |
| <input type="checkbox"/> CMA 74, Industrial Drawing and Print Reading | 3.0 |
| <input type="checkbox"/> CMA 81, Computer Aided Drafting and Design I | 3.0 |

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**TOTAL: 16-17 UNITS**

### 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>

## AGRICULTURE BUSINESS

### PROGRAM

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



#### DESCRIPTION

The Associate in Science in Agriculture Business for Transfer degree aligns with the CSU Bachelor of Science in Agriculture Business. The Associate in Science in Agriculture Business for Transfer degree is designed to provide students with the common core of lower division courses required to transfer and pursue a baccalaureate degree in Agriculture Business or Agribusiness Management. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

#### 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](http://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>

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Field Production Supervisor
- Harvest Supervisor
- Labor Contractor
- Pest Control Advisor
- Produce Sales
- Product Manager
- Production Specialist
- Quality Control Supervisor
- Supplies and Services Sales



# AGRICULTURE BUSINESS FOR TRANSFER (AST.AGR)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- demonstrate problem-solving techniques and critical thinking skills while engaged in job situations.
- prepare and deliver business documents and use math skills in appropriate form, format and language essential for career success in an agriculture
- demonstrate professional and personal development of work habits and safety practices.

### Required Major Courses (13 units)

<input type="checkbox"/> ABT-90 – Soil Science	3.0
<input type="checkbox"/> ABT-53 – Agribusiness Economics	3.0
<input type="checkbox"/> ECO-1 – Principles of Macroeconomics	3.0
<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0

### Major Electives (Complete 9 units)

<input type="checkbox"/> ABT-49 – Introduction Agriculture Business	3.0
<input type="checkbox"/> ABT-52 – Sales & Service in Agribusiness	3.0
<input type="checkbox"/> ABT-57 – Agriculture Computer Applications	3.0
<input type="checkbox"/> ABT-92 – Plant Science	3.0

### Recommended Major Electives (None required)

<input type="checkbox"/> ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/> BUS-1A – Financial Accounting	4.0
<input type="checkbox"/> CHM-22 – The Science of Chemistry	4.0

**SUBTOTAL: 22 UNITS**

### General Education –Required Courses

*Students must complete the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

## AGRICULTURE PLANT SCIENCE

### PROGRAM

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



### DESCRIPTION

The Associate in Science in Agriculture Plant Science for Transfer degree aligns with the CSU Bachelor of Science in Plant Science. The Associate in Science in Agriculture Plant Science for Transfer degree is designed to provide students with the common core of lower division courses required to transfer and pursue a baccalaureate degree in Plant Science. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Agronomist
- Biotechnologist
- Field Advisor
- Greenhouse Manager
- Soil Scientist

# AGRICULTURE PLANT SCIENCE FOR TRANSFER (AST.APS)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- identify food and fiber crops and their economic importance to the local and state economy.
- understand the relationships between plant, soil, and water, and their impact on plant health, nutrition and the environment.
- identify common problems in crop production and provide recommendations to improve quality and yields.

### Required Major Courses (21-24 units)

<input type="checkbox"/> ABT-90 – Soil Science	3.0
<input type="checkbox"/> CHM-22 – Introduction to Chemistry	4.0
<b>OR</b>	
CHM-1A – General Chemistry	5.0
<input type="checkbox"/> ABT-53 – Agribusiness Economics	3.0
<b>OR</b>	
ECO-5 – Principles of Microeconomics	3.0
<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/> ABT-92 – Plant Science	3.0
<input type="checkbox"/> MFGT-71 –Agricultural and Industrial Equipment	3.0
<b>OR</b>	
CHM-12A – Organic Chemistry	5.0

**SUBTOTAL: 21-24 UNITS**

### General Education –Required Courses

*Students must complete the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

## AGRICULTURE WITH AN AREA OF EMPHASIS

### PROGRAMS

- Associate of Science (A.S.)
- Certificates of Achievement



### DESCRIPTION

The Associate of Science degree in Agriculture is intended for students interested in a wide range of career and educational pathways. Those who are interested in farm management, harvest operations, agriculture research, and other areas of production agriculture would benefit from this degree. Several areas of emphasis create career pathways for students wanting to work in Agriculture, or eventually transfer to a specialized higher degree.

Students should consider this degree in order to function in a dynamic environment that deals with crops and management of crops from seed to harvest. Agriculture Production deals with all areas of agriculture production. Jobs in research, management, and development are readily available for those who excel in this degree.

### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Food Safety Coordinator
- Product Business Manager
- Ranch Assistant
- Sales Representative

# AGRICULTURE WITH AN AREA OF EMPHASIS (AS.AGRI)

## ASSOCIATE OF SCIENCE

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

- describe and employ current growing practices in the area of desired study.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

### Required Major Courses—Complete ALL (13-16 units)

<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-99 – Occupational Cooperative Work Experience (3 units recommended)	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.0
<b>OR</b>		
	BUS-43 – Business Information Systems and Information Literacy	4.0
<b>OR</b>		
	BUS-50 – Introduction to PC Applications	4.0

### Required Major Courses--Complete ONE AREA OF EMPHASIS

#### AGRICULTURE BUSINESS

The Agriculture Business Emphasis is intended for students interested in entrepreneurship, or as a foundation for transfer to a four-year college or university to pursue a higher degree in agriculture business or related field.

- AGRICULTURE BUSINESS (14-16 units)**
  - o **Complete:** ABT-49, and ABT-53, and ABT-110
  - o Complete **2 courses** from ABT-52, ABT-54, ABT-80, ABT-160, BUS-1A, or BUS-18

#### AGRICULTURE PRODUCTION

The Agriculture Production Emphasis is intended for students interested in a wide range of career and educational pathways: farm management, harvest operations, agricultural research, and many more. Students may use this emphasis to obtain skills and knowledge to work in industry, or as a foundation for transfer to a four-year college or university.

- AGRICULTURE PRODUCTION (14 units)**
  - o **Complete:** ABT-110
  - o Complete **2 courses** from ABT-95, ABT-96, ABT-97, ABT-98
  - Complete 6 units from Major Electives**
    - o ABT-41 (*recommended*), ABT-83 (*recommended*), ABT-80, ABT-81, ABT- 82, ABT-83, ABT-93, ABT-94, ABT-101, ABT-102, ABT-103, ABT-104, ABT-105, ABT- 130, ABT-160, MFGT-70, or MFGT-71, or MFGT-75

#### FOOD SAFETY

The Food Safety Emphasis is intended for students interested in the specialized practices required for the safe production, handling, transportation and manufacturing of food products. Students will be trained in skills critical to the agriculture and food manufacturing industries. An AS degree in Food Safety will provide students with immediately useful job skills. This degree also provides a foundation of knowledge that may be used to transfer to a four-year university. Keep in mind that several core courses are not transferrable toward a major at a four-year college or university.

- FOOD SAFETY (14-15 units)**
  - o **Complete:** ABT-130, ABT-131, ABT-132, ABT-133, ABT-134, & ABT- 135
  - o Complete **2 courses** from: ABT-80, ABT-110, ABT-160, COM-2 (*recommended by advisory for career preparedness*)

## HORTICULTURE TECHNICIAN

The Horticultural Technician Emphasis is intended for students interested in a career in the seed industry or agricultural research. Students will gain the necessary skills and knowledge to assist with plant breeding, seed enhancement, and agriculture research programs. In addition, students are encouraged to consider transferring to a four-year university to continue studies in a selected area of specialization within this crucial industry.

- HORTICULTURAL TECHNICIAN (15 units)**
  - o **Complete:** ABT-49, ABT-83, & ABT- 98
  - o Complete **2 courses** from: ABT-95, ABT-96, ABT-97, ABT-160

## SMALL FARM OPERATION AND MANAGEMENT

The Small Farm Operation and Management Emphasis is intended for students interested in becoming entrepreneurs in the area of crop production. Students will learn the foundation skills for farming and agriculture business from the ground up. Students will learn in an actual small farm production environment with the focus on organic production systems. Students may use this emphasis as a foundation to start their own business, or obtain skills and knowledge to work in industry. Several required courses are not transferable toward a major at a four-year college or university.

**Several courses in the Small Farm Operation and Management emphasis are held off campus at the ALBA Facility, 1700 Old Stage Road, Salinas.**

- SMALL FARM OPERATION AND MANAGEMENT (20 units)**
  - o **Complete:** ABT-94, ABT-101, ABT-102, ABT-103, ABT-104, ABT-105, & ABT-130
  - o Complete **2 courses** from: ABT-95 ABT-96, ABT-97, ABT-98
  - Complete 3 units from Major Electives**
    - o ABT-41 (*recommended*), MFGT-70, **or** MFGT- 71, **or** MFGT- 75 (*recommended*), ABT-80, ABT-81, ABT-83, ABT-93, ABT-160, ABT-131, ABT-135

## SUSTAINABLE CROP MANAGEMENT

The Sustainable Crop Management Emphasis is intended for students interested in a career in the area of crop health. Students typically select this emphasis as part of the requirements to earn a specialized government license or certification such as a Pest Control Advisor (PCA) license, an International Certified Crop Advisor (CCA), or a Certified Professional Agronomist (CPAg).

A degree or certificate from Hartnell College in Sustainable Crop Management does not satisfy all of the requirements to obtain a California PCA license, CCA or CPAg. Additional requirements apply. In addition, a BS degree in Plant Science, Crop Science or similar area of study is recommended for students seeking this career pathway. For further information about the California PCA license, contact the California Department of Pesticide Regulation (<http://www.cdpr.ca.gov>) or CAPCA (<https://capca.com/pca/>). For further information about becoming a CCA or CPAg, contact the American Society of Agronomy (<https://www.certifiedcropadviser.org/>).

- SUSTAINABLE CROP MANAGEMENT EMPHASIS (15 units)**
  - o **Complete:** ABT-41, ABT-80, & ABT-83
  - o Complete **6 units** from: ABT-81, ABT-82, ABT-93, ABT-95, ABT-96, ABT-97, ABT-98, ABT-160, ABT-101, ABT-102, or MFGT-70

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### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

**■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

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**TOTAL: 60 UNITS**

# AGRICULTURE BUSINESS (CT.AGR)

## CERTIFICATE OF ACHIEVEMENT

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

- describe and employ current growing practices in the area of desired study.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

### Required Major Courses (21-24 units)

<input type="checkbox"/>	ABT-110 – Careers in Agriculture and Technology	2.0
<input type="checkbox"/>	ABT-49 – Introduction to Agriculture Business	3.0
<input type="checkbox"/>	ABT-54 – Agriculture Marketing	3.0
<input type="checkbox"/>	ABT-58 – Agriculture Laws & Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-99 – Cooperative Work Experience	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.0
	<b>OR</b>	
	BUS-43 – Business Info Systems and Info Literacy	4.0
	<b>OR</b>	
	BUS-50 – Introduction to PC Applications	4.0

### Major Electives (Complete 6 units)

<input type="checkbox"/>	ABT-52 – Sales & Services in Agribusiness	3.0
<input type="checkbox"/>	ABT-53 – Agribusiness Economic	3.0
	<b>OR</b>	
	ECO-5 – Principles of Microeconomics	
<input type="checkbox"/>	ABT-80 – Introduction to Sustainable Agriculture & Food	3.0
<input type="checkbox"/>	ABT-160 – Introduction to Agriculture	3.0
<input type="checkbox"/>	BUS-1A – Financial Accounting	4.0
<input type="checkbox"/>	BUS-18 – The Legal Environment of Business	3.0

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**TOTAL: 27-30 UNITS**

### FINANCIAL AID

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

# AGRICULTURE PRODUCTION (CT.AGRP)

## CERTIFICATE OF ACHIEVEMENT

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

- describe and employ current growing practices in the area of desired study.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

### Required Major Courses (15-18 units)

<input type="checkbox"/>	ABT-110 – Careers in Agriculture and Technology	2.0
<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-99 – Cooperative Work Experience	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.0
<b>OR</b>		
	BUS-43 – Business Information Systems and Info Literacy	4.0
<b>OR</b>		
	BUS-50 – Introduction to PC Applications	4.0

### Major A Electives (Complete 6 units)

<input type="checkbox"/>	ABT-91 – Irrigation Practices and Materials	3.0
<input type="checkbox"/>	ABT-95 – Introduction to Small Fruit Science	3.0
<input type="checkbox"/>	ABT-96 – Vegetable Crop Production	3.0
<input type="checkbox"/>	ABT-97 – Vineyard Production & Management	3.0
<input type="checkbox"/>	ABT-98 – Fertilizers & Plant Nutrition	3.0

### Major B Electives (Complete 6 units)

<input type="checkbox"/>	ABT-41 – Pesticide Applicator Certification Training	3.0
<input type="checkbox"/>	ABT-66 – Intro to Geographic Information System	3.0
<input type="checkbox"/>	ABT-67 – Intermediate GIS w/ Applications to Agriculture	4.0
<input type="checkbox"/>	ABT-80 – Introduction to Sustainable Agriculture & Food	3.0
<input type="checkbox"/>	ABT-81 – Integrated Pest Management Principles in Entomology	3.0
<input type="checkbox"/>	ABT-82 – Integrated Pest Management Principles in Weed Science	3.0
<input type="checkbox"/>	ABT-83 – Integrated Pest Management Principles in Plant Pathology	3.0
<input type="checkbox"/>	ABT-93 – Product Processing and Cooling	3.0
<input type="checkbox"/>	ABT-160 – Introduction to Agriculture	3.0
<input type="checkbox"/>	AIT-70 – Introduction to Mechanized Agriculture	3.0
<b>OR</b>		
	AIT-71 – Agricultural and Industrial Equipment Operation	
<b>OR</b>		
	AIT-75 – Agricultural Machinery Management	
<input type="checkbox"/>	ABT-101 – Organic Vegetable Production	1.5
<input type="checkbox"/>	ABT-102 – Organic Field Production Methods	1.5
<input type="checkbox"/>	ABT-103 – Ag Planning and Recordkeeping for Small Farmers	1.5
<input type="checkbox"/>	ABT-104 – Ag Business Development for New Organic Farmers	1.5
<input type="checkbox"/>	ABT-105 – Marketing Opportunities and Growth for Organic Farming	1.5
<input type="checkbox"/>	ABT-130 – Introduction to Food Safety	1.5

**TOTAL: 27-30 UNITS**

### 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>



# FOOD SAFETY (CT.AGFS)

## CERTIFICATE OF ACHIEVEMENT

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

- describe and employ current growing practices in the area of desired study.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

### Required Major Courses (12 units)

<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-130 – Introduction to Food Safety	1.5
<input type="checkbox"/>	ABT-131 – Agricultural Practices for Food Safety	1.5
<input type="checkbox"/>	ABT-132 – Food Safety Management	1.5
<input type="checkbox"/>	ABT-133 – Facility Management for Food Safety	1.5
<input type="checkbox"/>	ABT-134 – Environmental Effects on Food Borne	1.5
<input type="checkbox"/>	ABT-135 – Introduction to Food Microbiology	1.5

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**TOTAL: 12 UNITS**

### 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>

# SMALL FARM (CT.AGSF)

## CERTIFICATE OF ACHIEVEMENT

The Small Farm Operation and Management Certificate is intended for students interested in becoming entrepreneurs in the area of crop production. Students will learn the foundation skills for farming and agriculture business from the ground up. Students will learn in an actual small farm production environment with a focus on organic production systems. Students may use this emphasis as a foundation to start their own business or obtain skills and knowledge to work in industry. This certificate contains all the required major coursework for an AS in Agriculture with an Emphasis in Agriculture Small Farm Operation and Management. Several courses in the Small Farm Operation and Management emphasis are held off-campus at the ALBA Facility, 1700 Old Stage Road, Salinas.

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

- demonstrate problem-solving techniques and critical thinking skills while engaged in a crop production environment.
- prepare and deliver business documents and use math skills in an appropriate form, format, and language essential for career success in a crop production setting.
- prepare a detailed business and marketing plan for an entrepreneurial agricultural business.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- demonstrate professional and personal development of work habits and safety practices

### Required Major Courses (24-27 units)

<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-94 – Agriculture Enterprise Project	2.0
<input type="checkbox"/>	ABT-99 – Cooperative Work Experience	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.4
	OR	
	BUS-43 – Business Information Systems and Information Literacy	
	OR	
	BUS-50 – Introduction PC Applications	
<input type="checkbox"/>	ABT-101 – Organic Vegetable Production	1.5
<input type="checkbox"/>	ABT-102 – Organic Field Production Methods	1.5
<input type="checkbox"/>	ABT-103 – Agriculture Whole Farm Planning and Recordkeeping for Small Farm	1.5
<input type="checkbox"/>	ABT-104 – Agriculture Business Development for New Organic Farmers	1.5
<input type="checkbox"/>	ABT-105 – Marketing Opportunities and Growth for Organic Farming	1.5
<input type="checkbox"/>	ABT-130 – Introduction to Food Safety	1.5

### Restricted Major Electives, Group A (6 units - Select two courses)

<input type="checkbox"/>	ABT-95 – Introduction to Small Fruit Science	3.0
<input type="checkbox"/>	ABT-96 – Vegetable Crop Production	3.0
<input type="checkbox"/>	ABT-97 – Vineyard Production and Management	3.0
<input type="checkbox"/>	ABT-98 – Fertilizers and Plant Nutrition	3.0

### Restricted Major Electives, Group B (Complete 3 units)

<input type="checkbox"/>	ABT-41 – Pesticide Applicator Certification Training	3.0
<input type="checkbox"/>	MFGT-70 – Introduction to Mechanized Agriculture	3.0
<input type="checkbox"/>	MFGT-71 – Agricultural and Industrial Equipment Operation	3.0
<input type="checkbox"/>	MFGT-75 – Agricultural Machinery Management	3.0
<input type="checkbox"/>	ABT-80 – Introduction to Sustainable Agriculture and Food	3.0
<input type="checkbox"/>	ABT-81 – Integrated Pest Management Principles in Entomology	3.0
<input type="checkbox"/>	ABT-82 – Integrated Pest Management Principles in Weed Science	3.0
<input type="checkbox"/>	ABT-83 – Integrated Pest Management Principles in Plant Pathology	3.0
<input type="checkbox"/>	ABT-93 – Product Processing & Cooling	3.0
<input type="checkbox"/>	ABT-160 – Introduction to Agriculture	3.0
<input type="checkbox"/>	ABT-131 – Agricultural Practices for Food Safety	1.5
<input type="checkbox"/>	ABT-135 – Introduction to Food Microbiology	1.5

**TOTAL: 33-36 UNITS**

### FINANCIAL AID

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

# SUSTAINABLE CROP MANAGEMENT (CT.AGSC)

## CERTIFICATE OF ACHIEVEMENT

The Sustainable Crop Management Certificate of Achievement is intended for students interested in a career in the area of crop health. Students typically select this emphasis as part of the requirements to earn a specialized government license or certification such as a Pest Control Advisor (PCA) license, an International Certified Crop Advisor (CCA), or a Certified Professional Agronomist (CPAg).

Additional requirements apply in order to obtain a California PCA license, CCA or CPAg. In addition, a BS degree in Plant Science, Crop Science or similar area of study is recommended for most students seeking this career pathway.

For further information about the California PCA license, contact the California Department of Pesticide Regulation (<http://www.cdpr.ca.gov>) or CAPCA (<https://capca.com/pca/>). For further information about becoming a CCA or CPAg, contact the American Society of Agronomy (<https://www.certifiedcropadviser.org/>).

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

- demonstrate problem-solving techniques and critical thinking skills while engaged in a crop production environment.
- prepare and deliver business documents and use math skills in an appropriate form, format, and language essential for career success in a crop production setting.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- relate why sustainable agriculture is the cornerstone of future growing trends.
- demonstrate professional and personal development of work habits and safety practices

### Required Major Courses (21-22 units)

<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-80 – Introduction to Sustainable Agriculture and Food	3.0
<input type="checkbox"/>	ABT-83 – Integrated Pest Management Principles in Plant Pathology	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-99 – Cooperative Work Experience	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3-4
	OR	
	BUS-43 – Business Information Systems and Information Literacy	
	OR	
	BUS-50 – Introduction PC Applications	

### Restricted Major Electives (Complete 6 units)

*All restricted Major Electives courses are recognized by the California Department of Pesticide Regulation as qualifying toward a California state Pest Control Advisers (PCA) license.*

<input type="checkbox"/>	ABT-81 – Integrated Pest Management Principles in Entomology	3.0
<input type="checkbox"/>	ABT-82 – Integrated Pest Management Principles in Weed Science	3.0
<input type="checkbox"/>	ABT-93 – Product Processing & Cooling	3.0
<input type="checkbox"/>	ABT-95 – Introduction to Small Fruit Science	3.0
<input type="checkbox"/>	ABT-96 – Vegetable Crop Production	3.0
<input type="checkbox"/>	ABT-97 – Vineyard Production and Management	3.0
<input type="checkbox"/>	ABT-98 – Fertilizers and Plant Nutrition	3.0
<input type="checkbox"/>	ABT-160 – Introduction to Agriculture	3.0
<input type="checkbox"/>	ABT-101 – Organic Vegetable Production	1.5
<input type="checkbox"/>	ABT-102 – Organic Field Production Methods	1.5
<input type="checkbox"/>	MFGT-70 – Introduction to Mechanized Agriculture	3.0

### FINANCIAL AID

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

**TOTAL: 27-28 UNITS**

# ASTRONOMY

## PROGRAM

- Associate of Science (A.S.)



### DESCRIPTION

The Astronomy program introduces students to the physical properties and processes that govern celestial bodies in the Universe. Students may take astronomy courses to satisfy their physical science requirements or to transfer to the university with a major in astronomy/astrophysics or double major in astronomy and physics. Transfer level astronomy curricula stress very strong preparation in physics and mathematics. While most astronomy courses will be taken at the upper division or graduate level, exposure to lower division astronomy courses will assist in exploring the major. Students planning to transfer may need to complete additional coursework and/or select specific electives required by the transfer institution and should consult with a Hartnell College counselor to identify required courses at their target university.

Students who complete a B.S. degree in astronomy will be qualified to enter a teaching credential program, operate a planetarium, and assist at an observatory. With an M.S. degree, students can teach astronomy or physics at a community college, be a telescope operator at a major observatory, or work in industry. A Ph.D. qualifies students for a career in research at a university, space agency, or observatory.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Astronomer
- Astronomy/Physics Professor
- Astrophysicist
- Observatory Director
- Planetarium Director
- Research Scientist
- Science Teacher

### 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](http://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>

# ASTRONOMY (AS.AST)

## ASSOCIATE OF SCIENCE

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

- explain basic astronomical phenomena and why they occur.
- apply the laws of physics and solve mathematical problems to explain the physical properties and processes that govern celestial bodies in the Universe.
- explain and discuss the impact and history of scientific theories.
- demonstrate proficiency in applying scientific procedures for making observations, measurements, and calculations typical of modern scientific research.

### Required Major Courses (34 units)

<input type="checkbox"/> AST-1 – Introduction to Astronomy	3.0
<input type="checkbox"/> AST-1L – Astronomy Laboratory	1.0
<input type="checkbox"/> PHY-4A – General Physics I/Mechanics	4.0
<input type="checkbox"/> PHY-4B – General Physics II/Electricity and Magnetism	4.0
<input type="checkbox"/> PHY-4C – General Physics III/ Waves, Heat and Modern Physics	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
<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

### Major Electives (Complete 1 course – 4-5 units)

<input type="checkbox"/> CHM-1A – General Chemistry I	5.0
<input type="checkbox"/> CSS-1 – Introduction to Computer Science and Programming	4.0
<input type="checkbox"/> CSS-4 – Introduction to Scientific Programming	4.0

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**SUBTOTAL: 38-39 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

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**TOTAL: 60 ≤ UNITS**

## BASIC COMPUTER LITERACY

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### PROGRAM

- **Certificate of Completion**



#### DESCRIPTION

The Certificate of Completion in Basic Computer Literacy is awarded upon the successful completion of BUS 600, 605, and 610. This noncredit program is intended for individuals with limited or no technology skills to provide basic computer literacy to lead to improved employability (career path or job opportunities) or to prepare students to take degree-applicable credit courses.

#### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide students with limited or no technology skills an opportunity to learn/improve keyboarding skills, to learn and use computer terminology and concepts, and to develop basic computer application skills. Students will also learn to use email and the Internet. The program-level learning outcome is "Given a course or work assignment, a student will be able to use keyboarding skills and computer technology/applications to produce basic business documents, emails, and Internet searches."

\*There is a \$10 Student Activities fee. However, there are no tuition fees because noncredit courses do not earn units/credits.

#### REQUIRED COURSES

- BUS-600 – Beginning Keyboarding
- BUS-605 – Basic Computer Concepts
- BUS-610- – Introduction to the Internet and Email

Students must successfully complete BUS 600, 605, and 610, which are offered fall, spring, and summer sessions. While students may complete the certificate in any sequence, it is recommended that the numbering sequence be followed since keyboarding and a knowledge of basic computer concepts will allow for more efficient use of the applications.

#### FOR MORE INFORMATION

CALL (831) 755-6701

## BIOLOGY

### PROGRAMS

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



### DESCRIPTION

The Biology program offers degrees that are intended to create interest and enrichment through the study of living organisms and the basic biological principles. The major courses provide a strong background in the biological sciences for students transferring to four-year institutions who are interested in careers such as agriculture, health, research, and teaching.

The Biology program offers two associate degrees: The AS degree (associate degree in biological sciences) and the AS-T degree (associate degree in biological sciences for transfer). The AS degree does not require calculus, but includes other mathematics courses that meet transfer requirements for certain institutions. The AS-T provides a clearly articulated curriculum, including first-semester calculus, for students who wish to transfer to baccalaureate degree programs at California State University (CSU) campuses.

Baccalaureate programs in biology include a wide array of specialties including but not limited to: animal or plant science, biochemistry, bioinformatics, cell and molecular biology, environmental biology, human biology, and microbiology. The preparation for different specialties will vary. For detailed requirements for individual programs at 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:

- Animal Scientist
- Biologist
- Botanist
- Ecologist
- Environmental Scientist
- Natural Resource Manager
- Nature Conservationist
- Public Health Worker
- Research/Professor
- Water Quality Technician
- Wildlife Biologist
- Wildlife Resource Worker

### 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](http://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>

# BIOLOGY FOR TRANSFER (AST.BIO)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- apply the scientific method to problem solving, devising a research plan, and evaluating data and findings.
- describe the structure and function of biological molecules, cells and organelles, and tissues and organ systems of plants and animals.
- apply the principles of heredity at the molecular, cellular, and organismal levels.
- explain the mechanism and evidence of evolution through natural selection.
- apply taxonomic principles to the classification of organisms.
- describe the flow of energy within organisms and within ecosystems.

### Required Major Courses (29 units)

<input type="checkbox"/>	BIO-1 – Fundamental Biological Concepts	5.0
<input type="checkbox"/>	BIO-2 – General Zoology	5.0
<input type="checkbox"/>	BIO-3 – General Botany	5.0
<input type="checkbox"/>	CHM-1A – General Chemistry I	5.0
<input type="checkbox"/>	CHM-1B – General Chemistry II	5.0
<input type="checkbox"/>	MAT-3A – Analytic Geometry and Calculus I	4.0

### Required Courses (Select 1 series 8 units)

<input type="checkbox"/>	PHY-2A – College Physics I	4.0
	<b>AND</b>	
	PHY-2B – College Physics II	4.0
	<b>OR</b>	
<input type="checkbox"/>	PHY-4A – General Physics I/Mechanics	4.0
	<b>AND</b>	
	PHY-4B – General Physics II/Electricity and Magnetism	4.0

### Recommended Major Electives (None Required)

<input type="checkbox"/>	CHM-12A – Organic Chemistry I	5.0
<input type="checkbox"/>	CHM-12B – Organic Chemistry II	5.0
<input type="checkbox"/>	MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/>	MAT-3B – Analytic Geometry and Calculus II	4.0
<input type="checkbox"/>	MAT-3C – Analytic Geometry and Calculus III	4.0

**SUBTOTAL: 37 UNITS**

### General Education – Required Courses

Students must complete one of the following General Education Plans:

**CSU-GE for STEM (see page 78) 33 units**

**IGETC for STEM (see page 80) 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.



## BIOLOGY (AS.BIO)

### ASSOCIATE OF SCIENCE

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

- apply the scientific method to problem solving, devising a research plan, and evaluating data and findings.
- describe the structure and function of biological molecules, cells and organelles, and tissues and organ systems of plants and animals.
- apply the principles of heredity at the molecular, cellular, and organismal levels.
- explain the mechanism and evidence of evolution through natural selection.
- apply taxonomic principles to the classification of organisms.
- describe the flow of energy within organisms and within ecosystems.

#### Required Major Courses (33 units)

<input type="checkbox"/>	BIO-1 – Fundamental Biological Concepts	5.0
<input type="checkbox"/>	BIO-2 – General Zoology	5.0
<input type="checkbox"/>	BIO-3 – General Botany	5.0
<input type="checkbox"/>	CHM-1A – General Chemistry I	5.0
<input type="checkbox"/>	CHM-1B – General Chemistry II	5.0
<input type="checkbox"/>	MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/>	MAT-25 – Pre-Calculus	4.0

#### Major Electives (Select 1 series 8-12 units)

<input type="checkbox"/>	PHY-2A/2B – College Physics I & II	8.0
<input type="checkbox"/>	PHY-4A/4B/4C – General Physics I, II, III	12.0

#### Recommended Major Electives (None Required)

<input type="checkbox"/>	CHM-12A – Organic Chemistry I	5.0
<input type="checkbox"/>	CHM-12B – Organic Chemistry II	5.0
<input type="checkbox"/>	MAT-3A – Analytic Geometry and Calculus I	4.0
<input type="checkbox"/>	MAT-3B – Analytic Geometry and Calculus II	4.0
<input type="checkbox"/>	MAT-3C – Analytic Geometry and Calculus III	4.0

**SUBTOTAL: 41-45 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE** (see page 78) **39 units**

**IGETC** (see page 80) **37 units**

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

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

**TOTAL: 62-66 UNITS**

## BUSINESS ADMINISTRATION 2.0

### PROGRAM

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



### DESCRIPTION

The Associate in Science in Business Administration 2.0 for Transfer degree (AS-T in Business Administration) is designed to provide students a clear transfer pathway to the CSU business administration major and completion of the business administration baccalaureate degree, to grant guarantee admission to a CSU to a similar major with junior standing, and the ability to complete their remaining requirements within 60 semester or 90 quarter units. The Associate of Science in Business Administration for Transfer degree provides a study of key business concepts. Business Administration majors will be able to analyze and interpret business scenarios using quantitative and logical reasoning to evaluate and solve business problems. Business Administration majors will be able to communicate economic effects, effectively convey financial information, and explain social, political and ethical implications of business decision making

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Accounting
- Chief Executive
- Cost Estimator
- Customer Service Management
- Entrepreneur/Business Owner
- Financial Planner/Advisor
- General & Operations Manager
- Human Resources
- Insurance
- Marketing
- Sales Manager
- Social/Community Service Manager
- Supply Chain Manager

### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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

# BUSINESS ADMINISTRATION 2.0 (AST.BUS2)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- apply accounting principles to prepare financial statements and managerial reports.
- apply concepts related to the law and the legal environment as it applies to business operations, including its ethical implications.
- analyze and interpret business scenarios using quantitative and logical reasoning to evaluate and solve business problems.
- demonstrate knowledge of basic economic concepts and how they affect business.

### Required Major Courses (28-29 units)

<input type="checkbox"/> BUS-1A – Financial Accounting	3.0
<input type="checkbox"/> BUS-1B – Managerial Accounting	3.0
<input type="checkbox"/> BUS-18 – The Legal Environment of Business	4.0
<input type="checkbox"/> BUS-32 – Introduction to Business	3.0
<input type="checkbox"/> ECO-1 – Macroeconomics	3.0
<input type="checkbox"/> ECO-5 – Microeconomics	3.0
<input type="checkbox"/> MAT-2 – Calculus for Managerial, Life & Social Science	4.0
OR	
MAT-16 – Finite Mathematics	3.0
OR	
MAT-25 – Pre-Calculus	4.0
<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0

**SUBTOTAL: 27-28 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

## BUSINESS OFFICE TECHNOLOGY

### PROGRAMS

- Associate in Science (A.S.)
- Certificates of Achievement



### DESCRIPTION

The Business Office Technology programs promote the economic development of the community; provide for lifelong learning and academic excellence through course content, application, and technology; serve diverse populations; encourage positive work ethic; and meet workforce needs through skills development, training, and personal growth.

The Business Office Technology programs offer training in keyboarding, office software applications, filing and records management, accounting (Bookkeeping Certificate), customer service, and business English and math applications. Students are prepared for career opportunities in administrative support, bookkeeping and data entry, customer service and other entry-level office positions.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Account Clerk
- Administrative Support
- Bank Teller
- Billing Clerk
- Bookkeeping
- Customer Service
- Data Entry
- Executive Secretary/Assistant
- File and Records Clerk
- Information Clerk
- Office Manager
- Payroll Clerk
- Typist

### 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](http://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>

# BUSINESS OFFICE TECHNOLOGY – INFORMATION PROCESSING (AS.BST)

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## ASSOCIATE OF SCIENCE

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

- demonstrate proficiency in selecting and using appropriate business software applications and tools.
- prepare and deliver business documents and presentations in appropriate form, format, and language.
- solve problems and make decisions collaboratively or independently.

### Required Major Courses (35 units)

<input type="checkbox"/>	BUS-50 – Introduction to PC Applications	4.0
<input type="checkbox"/>	BUS-110A – Beginning Keyboarding	1.0
<input type="checkbox"/>	BUS-110B – Beginning Formatting and Document Processing	1.0
<input type="checkbox"/>	BUS-111A – Intermediate Keyboarding	1.0
<input type="checkbox"/>	BUS-111B – Intermediate Document Processing	2.0
<input type="checkbox"/>	BUS-135 – Professionalism Office Skills	4.0
<input type="checkbox"/>	BUS-140A - Keyboarding Speed and Accuracy	0.5
<input type="checkbox"/>	BUS-140B – Keyboarding Speed and Accuracy	0.5
<input type="checkbox"/>	BUS-150.15 – Word Processing	3.0
<input type="checkbox"/>	BUS-172- Business Machine Calculations	1.0
<input type="checkbox"/>	BUS-173 – Filing Procedures and Records Management	3.0
<input type="checkbox"/>	BUS-175 – Business Communications	3.0
<input type="checkbox"/>	BUS-177 – Proofreading and Editing Skills	3.0
<input type="checkbox"/>	BUS-190 – Career Management	2.0
<input type="checkbox"/>	BUS-194 – Human Relations in Business	3.0
<input type="checkbox"/>	COM-1 – Introduction to Public Speaking	3.0

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**SUBTOTAL: 35 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- English composition     Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

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**TOTAL: 60 UNITS**

# BUSINESS OFFICE TECHNOLOGY – BOOKKEEPING (CT.BOTB)

## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate proficiency in selecting and using appropriate business software applications and tools.
- prepare and deliver business documents and presentations in appropriate form, format, and language.
- solve problems and make decisions collaboratively or independently.

### Required Major Courses (26 units)

<input type="checkbox"/>	BUS-50 – Introduction to PC Applications	4.0
<input type="checkbox"/>	BUS-110A – Beginning Keyboarding	1.0
<input type="checkbox"/>	BUS-110B – Beginning Formatting and Document Processing	1.0
<input type="checkbox"/>	BUS-135 – Professionalism Office Skills	4.0
<input type="checkbox"/>	BUS-42 – Electronic Spreadsheets	3.0
<input type="checkbox"/>	BUS-152 – Introduction to Accounting	4.0
<input type="checkbox"/>	BUS-154 – Computerized Accounting	3.0
<input type="checkbox"/>	BUS-172 – Business Machine Calculations	1.0
<input type="checkbox"/>	BUS-173 – Filing Procedures and Records Management	3.0
<input type="checkbox"/>	BUS-190 – Career Management	2.0

**TOTAL: 26 UNITS**

### 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>

# BUSINESS OFFICE TECHNOLOGY – INFORMATION PROCESSING (CT.BST)

## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate proficiency in selecting and using appropriate business software application and tools.
- prepare and deliver business documents and presentations in appropriate form, format, and language.
- solve problems and make decisions collaboratively or independently.

### Required Major Courses (26 units)

<input type="checkbox"/>	BUS-50 – Introduction to PC Applications	4.0
<input type="checkbox"/>	BUS-110A – Beginning Keyboarding	1.0
<input type="checkbox"/>	BUS-110B – Beginning Formatting and Document Processing	1.0
<input type="checkbox"/>	BUS-111A – Intermediate Keyboarding	1.0
<input type="checkbox"/>	BUS-111B – Intermediate Document Processing	2.0
<input type="checkbox"/>	BUS-135 – Professionalism Office Skills	4.0
<input type="checkbox"/>	BUS-140A – Keyboarding Speed and Accuracy	0.5
<input type="checkbox"/>	BUS-140B – Keyboarding Speed and Accuracy	0.5
<input type="checkbox"/>	BUS-150.15 – Word Processing	3.0
<input type="checkbox"/>	BUS-172 – Business Machine Calculations	1.0
<input type="checkbox"/>	BUS-173 – Filing Procedures and Records Management	3.0
<input type="checkbox"/>	BUS-177 – Proofreading and Editing Skills	3.0
<input type="checkbox"/>	BUS-190 – Career Management	2.0

**TOTAL: 26 UNITS**

### 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>

## BUSINESS - FIRST LINE SUPERVISOR

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### PROGRAMS

- Certificates of Achievement



### DESCRIPTION

This certificate prepares students with a set of soft skills recognized as crucial to performing in a supervisory role in a business setting. Specifically, improving communication skills, understanding the structure and functions of business, and knowledge of human relations in the workplace are all considered essential to the success of business today. It also develops information technology literacy, including computer applications and online research skills.

### 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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Supervisors of
  - Food Preparation and Serving Workers
  - Retail Sales Works
  - Administrative Support Workers
  - Farming, Fishing and Forestry Workers
  - Construction Trades and Extraction Workers



# FIRST LINE SUPERVISOR (CT.FS)

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## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate knowledge of the organization and the functions of modern businesses.
- demonstrate basic oral and written business communication skills.
- apply concepts, methods, and tools of management in an ethical manner to typical business operations.
- use technology and software applications effectively for common business operations.
- demonstrate the ability to work effectively with others in a team environment.

### Required Major Courses (16 units)

<input type="checkbox"/> BUS-32—Introduction to Business	3.0
<input type="checkbox"/> BUS-42—Electronic Spreadsheet (Excel)	3.0
<input type="checkbox"/> BUS-43—Business Information Systems & Info Literacy	4.0
<input type="checkbox"/> BUS-194—Human Relations	3.0
<input type="checkbox"/> COM-1—Introduction to Public Speaking	3.0

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**TOTAL: 16 UNITS**

### 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>

## BUSINESS INFORMATION WORKER

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### PROGRAMS

- **Certificates of Achievement**



#### DESCRIPTION

##### **BUSINESS INFORMATION WORKER LEVEL 1**

This certificate prepares students with basic office skills to perform entry-level business office related tasks. Course offerings introduced the students to concepts such as customer service, office procedures and business communication. In addition, students acquire beginning technology skills that include word processing, spreadsheets, presentation software, personnel management software, and computer literacy.

##### **BUSINESS INFORMATION WORKER LEVEL 2**

This certificate is a continuation of the Business Office Professional pathway building on the courses already completed for the Level 1 certificate. Additional courses provide a continued focus on the development of office and technology skills including career management, filing procedures and record management, and computer applications including MS Word and personal management software.

#### **GAINFUL EMPLOYMENT INFORMATION:**

See the certificate program cost and the employment outlook for graduates by clicking the link below:

<http://www.hartnell.edu/gainful-employment-certificate-programs-0>

#### **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>

#### **LEADS TO CAREER OPPORTUNITIES SUCH AS:**

- Administrative Assistant
- Billing and Posting Clerks
- Customer Service Representatives
- Executive Secretaries and Executive Administrative Assistants
- File Clerks
- Secretary

# BUSINESS INFORMATION WORKER LEVEL-1 (CT.BIW1)

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## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate the ability to use office related computer application software such as MS Word, Excel, Powerpoint, and Access.
- demonstrate knowledge of basic entry-level office computer skills and processes (keyboarding and 10-key)
- demonstrate basic oral and written business communication skills
- efficiently use a computer to perform basic office tasks including electronic file management.

### Required Major Courses (16 units)

<input type="checkbox"/>	BUS-50 – Introduction to PC Applications	4.0
<input type="checkbox"/>	BUS-110A – Beginning Keyboarding	1.0
<input type="checkbox"/>	BUS-110B – Beginning Formatting and Document Processing	1.0
<input type="checkbox"/>	BUS-135 – Professional Office Skills	4.0
<input type="checkbox"/>	BUS-172 – Machine Calculations	1.0
<input type="checkbox"/>	BUS-175 – Business Communications	3.0
<input type="checkbox"/>	BUS-190 – Career Management	2.0

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**TOTAL: 16 UNITS**

### 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>

## BUSINESS INFORMATION WORKER LEVEL-2 (CT.BIW2)

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### CERTIFICATE OF ACHIEVEMENT

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

- successfully demonstrate oral and written skills used in the job searching process.
- create, edit and format a variety of business documents.
- demonstrate proficiency in using personal management software.
- demonstrate ability to use a variety of record management techniques.

**(Complete all BIW1 courses listed) (16 units)**

- |  |     |
|--|-----|
| <input type="checkbox"/> BUS-50 – Introduction to PC Applications                | 4.0 |
| <input type="checkbox"/> BUS-110A – Beginning Keyboarding                        | 1.0 |
| <input type="checkbox"/> BUS-110B – Beginning Formatting and Document Processing | 1.0 |
| <input type="checkbox"/> BUS-135 – Professional Office Skills                    | 4.0 |
| <input type="checkbox"/> BUS-172 – Machine Calculations                          | 1.0 |
| <input type="checkbox"/> BUS-175 – Business Communications                       | 3.0 |
| <input type="checkbox"/> BUS-190 – Career Management                             | 2.0 |

**Required Major Courses (10 units)**

- |   |     |
|---|-----|
| <input type="checkbox"/> BUS-111A – Intermediate Keyboarding                | 1.0 |
| <input type="checkbox"/> BUS-111B – Intermediate Document Processing        | 2.0 |
| <input type="checkbox"/> BUS-136 – Personal Information Management          | 1.0 |
| <input type="checkbox"/> BUS-173 – Filing Procedures and Records Management | 3.0 |
| <input type="checkbox"/> BUS-42 – Electronic Spreadsheets                   | 3.0 |

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**TOTAL: 26 UNITS**

### 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

### PROGRAM

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



#### 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](http://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 80) 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.

## CHICANX STUDIES

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### PROGRAM

- **Associate of Arts (A.A.)**



### DESCRIPTION

The Chicana Studies Program provides organized studies in the heritage of Chicana culture and community to foster and expand a general understanding of this group. The Chicana degree courses give students the opportunity to develop competence in an understanding of the language, history, and culture as well as current issues affecting the community. Completion of the Chicana major enhances students' employment opportunities and careers in schools, community groups, governmental agencies, and the private sector.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Community and Union Organizer
- Community Liaison
- Counselor
- Cultural Anthropologist
- Grant Writer
- Lawyer
- Professor/Teacher
- Public Health
- Public Policy
- Social Work
- Sociologist

## CHICANX STUDIES (AA.CHCX)

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### ASSOCIATE OF ARTS

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

- demonstrate knowledge of Chicana/x in the United States including an evaluation of the political experiences with respect to local and national leaders.
- apply critical thinking skills in reading, comprehending, and interpreting Chicana/x studies scholarship including major contributors who have influenced the course of study, policy and or culture.
- demonstrate knowledge of Chicana/x culture including an analysis in cultural expressions including but not limited to contemporary culture, literature or cinema.
- distinguish variations within the Chicana/x community with respect to class, gender, ethnicity, race, and sexuality.

#### Required Major Courses (14 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> ETH-1 – Introduction to Ethnic Studies    | 3.0 |
| <input type="checkbox"/> ETH-3 – Introduction to Chicana/x Studies | 3.0 |
| <input type="checkbox"/> ETH-4 – Chicana/x Culture                 | 3.0 |
| <input type="checkbox"/> SPA-1 – Elementary Spanish 1              | 5.0 |
| <b>OR</b>  |     |
| SPA-1X – Elementary Spanish 1 for Chicano Students                 | 5.0 |
| <b>OR</b>  |     |
| SPA-1S – Elementary Spanish 1 for Spanish Students                 | 5.0 |

#### Major Electives (Complete 6 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> ETH-2 – Chicana/o/x Leadership | 3.0 |
| <input type="checkbox"/> ETH-5/POL-5 – Chicano Politics | 3.0 |
| <input type="checkbox"/> ETH-6 – La Chicana             | 3.0 |
| <input type="checkbox"/> ETH-7 – Chicana/o/x Theatre    | 3.0 |
| <input type="checkbox"/> ETH-12 – Chicano Cinema        | 3.0 |
| <input type="checkbox"/> HIS-49A– Chicano History A     | 3.0 |
| <b>OR</b>   |     |
| HIS-49B – Chicano History B                             |     |

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**SUBTOTAL: 20 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- |   |   |
|---|---|
| <input type="checkbox"/> English composition                              | <input type="checkbox"/> Oral communication and Critical thinking |
| <input type="checkbox"/> Mathematical Concepts and Quantitative Reasoning |   |
| <input type="checkbox"/> Arts and Humanities                              |   |
| <input type="checkbox"/> Social and Behavioral Sciences                   |   |
| <input type="checkbox"/> Physical and Biological Sciences                 |   |
| <input type="checkbox"/> Ethnic Studies                                   |   |
| <input type="checkbox"/> Lifelong Learning and Self Development           |   |

**SUBTOTAL: 21 UNITS**

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

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

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**TOTAL: 60 UNITS**



## COMMUNICATION STUDIES 2.0

### PROGRAM

- Associate in Arts for Transfer (A.A.-T)



### DESCRIPTION

The Associate in Arts in Communication Studies 2.0 for Transfer allows students to focus their major course work and required electives to achieve communicative competence in the areas of business, intercultural, interpersonal and public communication. This program, its instructors, and curriculum are dedicated to providing a student-centered design of the college experience, working to ensure every student understands how to use communication to successfully achieve their varied educational, career, and personal goals. The program also guarantees students will learn how communication is a core part of constructing and negotiating identity, encouraging students to see communication as a means to better understand themselves and others from different backgrounds. The program in Communication Studies recognizes identity is the intersection of race/ethnicity, gender identity and expression, sexuality, national origin, citizenship status, class, socioeconomic status, ability and disability, language, religion, age, physical appearance and other aspects not yet identified.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Account Representative
- Advertising
- Advocate
- Announcer
- Broadcaster
- Consultant
- Corporate Communications Officer
- Director/Producer
- Editor
- Journalist
- Lawyer
- Marketing
- Negotiator
- Public Administration
- Public Relations
- Researcher
- Sales Representative
- Speech Writer
- Teacher

### 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](http://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>

# COMMUNICATION STUDIES 2.0 (AAT.COM2)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- articulate their own unique communication opportunities and strengths through a lens of intrapersonal and cultural exploration.
- conceive, research, develop and deliver a focused, cogent, and clear oral presentation for diverse audiences.
- explain the transactional and transformative nature of human communication using culturally relevant examples.
- research, organize, and write a paper detailing and applying various communication theories and concepts as applied to their own unique lived experiences.

### Required Major Courses (15 units)

<input type="checkbox"/>	COM-1 – Introduction to Public Speaking	3.0
<input type="checkbox"/>	COM-2 – Argumentation and Debate	3.0
<input type="checkbox"/>	COM-5 – Professional & Leadership Communication	3.0
<input type="checkbox"/>	COM-4 – Intercultural Communication	3.0
<input type="checkbox"/>	COM-8 – Interpersonal Communication	3.0

### Major Electives (Complete 3 units)

<input type="checkbox"/>	COM-3 – Survey of Human Communication	3.0
<input type="checkbox"/>	ANT-2 – Introduction to Anthropology Cultural	3.0
<input type="checkbox"/>	ENG-2 – Critical Thinking and Writing	3.0
<input type="checkbox"/>	PSY-2 – General Psychology	3.0
<input type="checkbox"/>	SOC-1 – Introduction to Sociology	3.0
<input type="checkbox"/>	ENG-1B – College Literature and Composition	3.0

**SUBTOTAL: 18 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

## COMPUTER SCIENCE FOR TRANSFER

### PROGRAM

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



### DESCRIPTION

The Computer Science and Information Systems program offers courses that are intended to create interests and enrichment through the study of computer science fundamentals, programming concepts, and hardware. The major courses provide a strong well-rounded background in computer science for students transferring to four-year institutions who are interested in careers such as software developers, software engineers, researchers and teachers.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Administrator
- Computer Science Teacher
- Network and Computer Systems
- Programmer Analyst
- Software Developer
- Web Developer

# COMPUTER SCIENCE FOR TRANSFER (AST.CS)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- demonstrate the ability to communicate effectively with technical and non-technical colleagues through presentations and reports, and work effectively on a team project.
- design and construct significant computer application(s) using current programming languages and operating systems.
- describe the organization and operation of a computer architecture with respect to numerical representations and computations, digital logic, and computer components.
- demonstrate the ability to evaluate algorithms, select from a range of possible options, provide justification for that selection, and implement the algorithm using an appropriate programming language and context.
- demonstrate the ability to solve discrete mathematical problems, describe and apply discrete structures and logic principles, perform run-time analysis on algorithms and prove algorithm correctness.

### Required Major Courses (33 units)

<input type="checkbox"/>	CSS-2A – Object Oriented Programming	4.0
<input type="checkbox"/>	CSS-2B – Data Structures and Algorithms	4.0
<input type="checkbox"/>	CSS-3 – Computer Architecture and Assembly	4.0
<input type="checkbox"/>	CSS-7 – Discrete Structures	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
<input type="checkbox"/>	PHY-4A – General Physics I/Mechanics	4.0
<input type="checkbox"/>	BIO-1 – Fundamental Biological Concepts	5.0

**SUBTOTAL: 33 UNITS**

### General Education – Required Courses

*Students must complete the following General Education Plans:*

**IGETC (see page 80)**

**37 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.

# COMPUTER SCIENCE AND INFORMATION SYSTEMS

## COMPUTER SCIENCE OPTION

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### PROGRAMS

- Associate of Science (A.S.)
- Certificate of Achievement



### DESCRIPTION

The Computer Science and Information Systems program prepares students taking the Computer Science Option with the lower-division major preparation required at most universities for advancement to upper-division coursework for the Bachelor's Degree with a major in Computer Science or Information Systems fields. The scientific and technical skills acquired through this study serve to prepare students for high demand careers in computing, such as software developer, computer programmer, and software engineer.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Computer & Information System Managers
- Computer Programmers
- Computer Systems Engineer
- Software Developers
- Software Quality Assurance Engineers & Testers
- Web Administrator
- Web Developer



**CERTIFICATE OF ACHIEVEMENT**

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

- accurately communicate their work in a technical and non-technical context.
- design and construct significant computer application(s) using current programming languages, computer architectures, and operating systems.
- describe the organization and operation of a computer architecture with respect to numerical representation and computations, digital logic, and computer components.
- demonstrate the ability to evaluate algorithms, select from a range of possible options, provide justification for that selection, and implement the algorithm in a programming context.

**Required Major Courses (20 units)**

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | CSS-1 – Introduction to Computer Science and Programming | 4.0 |
| <input type="checkbox"/> | CSS-2A – Object Oriented Programming                     | 4.0 |
| <input type="checkbox"/> | CSS-2B – Data Structures Algorithms                      | 4.0 |
| <input type="checkbox"/> | CSS-3 – Computer Architecture and Assembly Language      | 4.0 |
| <input type="checkbox"/> | CSS-7 – Discrete Structures                              | 4.0 |

**Major Electives (Complete 8 units)**

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | CSS-50 – Introduction to Networks: CCNA 1      | 4.0 |
| <input type="checkbox"/> | CSS-53 – Computer Security Principles          | 4.0 |
| <input type="checkbox"/> | CSS-56 – Storage Management and Virtualization | 4.0 |
| <input type="checkbox"/> | MAT-3B – Analytic Geometry and Calculus II     | 4.0 |

---

**TOTAL: 28 UNITS**

**FINANCIAL AID**

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

# COMPUTER SCIENCE AND INFORMATION SYSTEMS CISCO CERTIFIED NETWORK ASSOCIATE

## PROGRAMS

- Certificates of Achievement



### DESCRIPTION

This Cisco Certified Network Associate (CCNA) Certificate of Achievement combines all of the required courses needed to prepare for the CCNA exam, an industry-recognized associate level certificate. This certificate is intended to be completed in one year and a half and as such prepares students for careers in Information Technology with a focus in networking. This certificate is specially designed to send students on a fast-track career in IT careers related to networking.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Computer Network Specialists
- Network and Computer System Administration



# COMPUTER SCIENCE AND INFORMATION SYSTEMS

## CISCO CERTIFIED NETWORK ASSOCIATE (CT.CCN)

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### CERTIFICATE OF ACHIEVEMENT

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

- demonstrate the mastery in networking required to obtain CCNA certification from Cisco systems.
- demonstrate the ability to think critically, communicate, and personal responsibility in IT industry.
- design and implement converged networks in both wired and wireless networks.

#### Required Major Courses (15 units)

<input type="checkbox"/>	CSS-50 – Introduction to Networks: CCNA 1	4.0
<input type="checkbox"/>	CSS-51 – Switching, Routing, and Wireless Essentials: CCNA 2	4.0
<input type="checkbox"/>	CSS-52 – Enterprise Networking, Security and Automation: CCNA3	4.0
<input type="checkbox"/>	COM-3 – Survey of Human Communication	3.0
<b>OR</b>		
<input type="checkbox"/>	ENG-1A – College Composition and Reading	3.0

---

**TOTAL: 15 UNITS**

#### 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>

# COMPUTER SCIENCE AND INFORMATION SYSTEMS CYBERSECURITY

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## PROGRAMS

- **Certificate of Achievement**

### DESCRIPTION

The Cybersecurity Certificate of Achievement combines security in a networking and system administration environment to provide students with well-rounded skills and knowledge necessary for careers in cybersecurity in the Information Technology Industry. Students who want to advance their career in IT are encouraged to complete the Computer Science Associate Degree with a focus on Network and Security Option.

### 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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Penetration Tester
- Computer Forensic Analyst
- Security Architect
- Malware Analyst

# COMPUTER SCIENCE AND INFORMATION SYSTEMS CYBERSECURITY (CT.CS)

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## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate the ability to communicate and present concepts in cybersecurity as they relate to networking and system and network administration.
- demonstrate the ability to implement and manage security in a networked environment.

### Required Major Courses (20 units)

<input type="checkbox"/>	CSS-1 – Introduction to Computer Science and Programming	4.0
<input type="checkbox"/>	CSS-50 – Introduction to Networks: CCNA 1	4.0
<input type="checkbox"/>	CSS-53 – Computer Security Principles	4.0
<input type="checkbox"/>	CSS-54 – Network Security Principles	4.0
<input type="checkbox"/>	CSS-55 – System and Network Administration	4.0

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**TOTAL: 20 UNITS**

### 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>

# COMPUTER SCIENCE AND INFORMATION SYSTEMS

## DIGITAL WEB AND MOBILE DEVELOPMENT



### PROGRAMS

- Associate of Science (A.S.)
- Certificates of Achievement

### DESCRIPTION

The Digital Web and Mobile Development program is designed for students who are interested in entering the fast-paced fields of web development and mobile app development. A student will learn the latest in web languages, basic web and mobile programming and appropriate use of digital media by building a digital portfolio of their work. Students can focus on either web development or mobile app development through the certificate program or combine the two disciplines for an Associate's degree. Many of these courses are offered in the online environment to accommodate those students who are presently employed. The web and mobile degree option emphasizes the following competencies: managing the development of a project, delivery of comprehensive, integrated digital media via the web or mobile application. Students will also development a set of customer liaison skills as they integrating all facets of digital media into an effective web or mobile application. As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Advertising Sales Representative or Executive
- Graphic Designer
- Marketing Manager
- Public Relations Specialist
- Web Developer

### 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](http://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>

# COMPUTER SCIENCE AND INFORMATION SYSTEMS

## DIGITAL WEB AND MOBILE DEVELOPMENT (AS.DWMD)

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### ASSOCIATE OF SCIENCE

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

- anticipate, identify and solve technical and design issues by applying current design standards
- apply knowledge in a variety of computer proficiency areas including web languages, software applications, file transfer protocol, and web and app configuration.

#### Required Major Courses (14 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> BUS-32 – Introduction to Business                   | 3.0 |
| <input type="checkbox"/> CSS-25 – Multimedia Integration                     | 3.0 |
| <input type="checkbox"/> CSS-27 – Project Management using Microsoft Project | 4.0 |
| <input type="checkbox"/> CSS-64 – HTML 5 and CSS3 – Web Development          | 4.0 |

#### Major Electives A (Complete 8 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> CSS-26 – Dreamweaver                        | 4.0 |
| <input type="checkbox"/> CSS-74 – Wordpress for Websites             | 4.0 |
| <input type="checkbox"/> CSS-76 – Android App Development Using Java | 4.0 |
| <input type="checkbox"/> CSS-86 – Adobe Animate                      | 4.0 |

#### Major Electives B (Complete an additional 8 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> CSS-29 – Programming for Multimedia                    | 4.0 |
| <input type="checkbox"/> CSS-76 – Android App Development Using Java            | 4.0 |
| <input type="checkbox"/> CSS-65 – Introduction to IOS App Development           | 4.0 |
| <input type="checkbox"/> CSS-78 – Mobile Game Design                            | 4.0 |
| <input type="checkbox"/> CSS-84 – Beginning Digital Cartooning in Adobe Animate | 4.0 |

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**SUBTOTAL: 30 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

##### HCCD GE (see page 76)

- |   |   |
|---|---|
| <input type="checkbox"/> English composition                              | <input type="checkbox"/> Oral communication and Critical thinking |
| <input type="checkbox"/> Mathematical Concepts and Quantitative Reasoning |   |
| <input type="checkbox"/> Arts and Humanities                              |   |
| <input type="checkbox"/> Social and Behavioral Sciences                   |   |
| <input type="checkbox"/> Physical and Biological Sciences                 |   |
| <input type="checkbox"/> Ethnic Studies                                   |   |
| <input type="checkbox"/> Lifelong Learning and Self Development           |   |

**SUBTOTAL: 21 UNITS**

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

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

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**TOTAL: 60 UNITS**

# COMPUTER SCIENCE AND INFORMATION SYSTEMS

## MOBILE DEVELOPMENT OPTION (CT.MD)

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### CERTIFICATE OF ACHIEVEMENT

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

- anticipate, identify and solve technical and design issues by applying current design standards
- apply knowledge in a variety of computer proficiency areas including web languages, software applications, file transfer protocol, and web and app configuration.

#### Required Major Courses (14 units)

<input type="checkbox"/> BUS-32 – Introduction to Business	3.0
<input type="checkbox"/> CSS-25 – Multimedia Integration	3.0
<input type="checkbox"/> CSS-27 – Project Management using Microsoft Project	4.0
<input type="checkbox"/> CSS-64 – HTML 5 and CSS3 – Web Development	4.0

#### Major Electives (Complete 8 units)

<input type="checkbox"/> CSS-76 – Android App Development Using Java	4.0
<input type="checkbox"/> CSS-65 – Introduction IOS App Development	4.0

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**TOTAL: 22 UNITS**

#### FINANCIAL AID

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

# COMPUTER SCIENCE AND INFORMATION SYSTEMS WEB DEVELOPMENT OPTION (CT.WD)

---

## CERTIFICATE OF ACHIEVEMENT

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

- anticipate, identify and solve technical and design issues by applying current design standards
- apply knowledge in a variety of computer proficiency areas including web languages, software applications, file transfer protocol, and web and app configuration.

### Required Major Courses (14 units)

<input type="checkbox"/> BUS-32 – Introduction to Business	3.0
<input type="checkbox"/> CSS-25 – Multimedia Integration	3.0
<input type="checkbox"/> CSS-27 – Project Management using Microsoft Project	4.0
<input type="checkbox"/> CSS-64 – HTML 5 and CSS3 – Web Development	4.0

### Major Electives (Complete 8 units)

<input type="checkbox"/> CSS-26 – Dreamweaver	4.0
<input type="checkbox"/> CSS-74 – Wordpress for Websites	4.0

---

**TOTAL: 22 UNITS**

### 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>

# COMPUTER SCIENCE AND INFORMATION SYSTEMS NETWORK AND SECURITY OPTION



## PROGRAMS

- Associate of Science (A.S.)
- Certificate of Achievement

### DESCRIPTION

The Associate of Science in Computer Science and Information Systems - Network and Security Option prepares students for employment in the network and security field. It is designed for students interested in becoming network and security specialists in a business that uses networks or information systems. Upon completing the program students will be prepared to take industry-recognized certifications that include: A+ certificate, CCENT, CCNA, Network+, Security+, and Linux+.

### CERTIFICATE OF ACHIEVEMENT

This certificate is designed for those interested in becoming network and security specialists in a networked business or information systems environment.

The Computer Science and Information Systems program prepares students taking the Network and Security Option Certificate of Achievement for employment in the network and security field. It is designed for students interested in becoming network and security specialists in a business that uses networks or information systems. Upon completing the program students will be prepared to take industry-recognized certifications that include: A+ certificate, CCENT, CCNA, Network+, Security+, and Linux+.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Computer and Information Systems Managers
- Computer Network Architects
- Computer Network Support Specialists
- Database Administrators
- Information Security Analysts
- Network and Computer Systems
- System Administrator
- Telecommunications Engineering Specialists



# COMPUTER SCIENCE AND INFORMATION SYSTEMS NETWORK AND SECURITY OPTION (AS.PCN)

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## ASSOCIATE OF SCIENCE

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

- design, plan, and implement a small office network, incorporating current industry standards for performance, reliability, and security.
- accurately communicate their work in a technical and non-technical context.
- assemble and configure a computer, install operating systems and software, and troubleshoot hardware, software and networking problems.
- configure business and enterprise networking, storage and virtual equipment (servers and network devices), to create a reliable, secure, and efficient networking infrastructure.

### Required Major Courses (40 units)

<input type="checkbox"/>	CSS-1 – Introduction to Computer Science & Programming Fundamentals	4.0
<input type="checkbox"/>	CSS-50 – Introduction to Networks: CCNA 1	4.0
<input type="checkbox"/>	CSS-51 – Switching, Routing, and Wireless Essentials: CCNA 2	4.0
<input type="checkbox"/>	CSS-52 – Enterprise Networking, Security, and Automation: CCNA 3	4.0
<input type="checkbox"/>	CSS-53 – Computer Security Principles	4.0
<input type="checkbox"/>	CSS-54 – Network Security Principles	4.0
<input type="checkbox"/>	CSS-55 – Systems and Network Administration	4.0
<input type="checkbox"/>	CSS-56 – Storage Management and Virtualization	4.0
<input type="checkbox"/>	CSS-169 – IT Essentials	4.0

---

**SUBTOTAL: 36 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

#### HCCD GE (see page 76)

- English composition     Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

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**TOTAL: 61 UNITS**

# COMPUTER SCIENCE AND INFORMATION SYSTEMS NETWORK AND SECURITY OPTION (CT.PCN)

## CERTIFICATE OF ACHIEVEMENT

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

- design, plan, and implement a small office network, incorporating current industry standards for performance, reliability, and security.
- accurately communicate their work in a technical and non-technical context.
- assemble and configure a computer, install operating systems and software, and troubleshoot hardware, software and networking problems.
- configure business and enterprise networking, storage and virtual equipment (servers and network devices), to create a reliable, secure, and efficient networking infrastructure.

### Required Major Courses (40 units)

<input type="checkbox"/>	CSS-1 – Introduction to Computer Science and Programming	4.0
<input type="checkbox"/>	CSS-50 –Introduction to Networks: CCNA 1	4.0
<input type="checkbox"/>	CSS-51– Switching Routing and Wireless Essentials: CCNA 2	4.0
<input type="checkbox"/>	CSS-52 – Enterprise Networking, Security and Automation: CCNA 3	4.0
<input type="checkbox"/>	CSS-53 – Computer Security Principles	4.0
<input type="checkbox"/>	CSS-54 – Network Security Principles	4.0
<input type="checkbox"/>	CSS-55 – Systems and Network Administration	4.0
<input type="checkbox"/>	CSS-56 – Storage Management and Virtualization	4.0
<input type="checkbox"/>	CSS-169 – IT Essentials	4.0

**TOTAL: 36 UNITS**

### 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.

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# COMPUTER SCIENCE AND INFORMATION SYSTEMS TECHNICAL SUPPORT

## PROGRAMS

- **Certificate of Achievement**



### DESCRIPTION

The Technical Support Certificate of Achievement combines information technology courses that provide students with the fundamental skills necessary for entry-level computer technical support careers while preparing students for the A+, Security+, and Network + entry-level industry-recognized certificates. Students wishing to advance their career in IT might consider advancing to the Computer Science Associate Degree with a focus on Networking and Security Options and/or certificates focused in security of networking. This certificate is intended to be completed in one year.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Computer User Support Specialist
- Computer, Automated Teller and Office Machine Repairs.

# COMPUTER SCIENCE AND INFORMATION SYSTEMS TECHNICAL SUPPORT (CT.TS)

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## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate the ability to communicate and present concepts in information technology (IT).
- demonstrate the ability to communicate and document problem, analysis, and resolution processes for technical-related issues.
- demonstrate the ability to implement solutions to customers' technical problems that minimize risk and disruption to productivity.

### Required Major Courses (16 units)

<input type="checkbox"/>	CSS-50 – Introduction to Networks: CCNA 1	4.0
<input type="checkbox"/>	CSS-169 – IT Essentials	4.0
<input type="checkbox"/>	CSS-53 – Computer Security Principles	4.0
<input type="checkbox"/>	BUS-43 – Business Information System and Information Literacy	4.0
	OR	
<input type="checkbox"/>	CSS-57 – Introduction to UNIX/Linux Systems	4.0

---

**TOTAL: 16 UNITS**

### 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>

# CONSTRUCTION MANAGEMENT AND ARCHITECTURE

## PROGRAM

- Associate of Science (A.S.)



### DESCRIPTION

The Associate of Science Degree in Construction Management and Architecture provides a comprehensive introduction to the construction management profession and professional architectural studies. Students select an Associate of Science Degree emphasis in either Construction Management or Architecture, which share interdisciplinary core courses. Licensed professionals instruct students in principles of sustainability, fundamental construction field skills and methods, construction management principles, and architectural design theory. Under practical field and professional studio conditions, students apply current leading industry construction techniques, and computer-aided design and management technologies.

#### **Construction Management Emphasis:**

The Construction Management emphasis provides the basic practical construction skills and advanced technical knowledge necessary to enter directly into a professional construction management career. Licensed contractors instruct students in lecture, field practice, and studio settings.

#### **Architecture Emphasis:**

The Architecture emphasis provides a basic practical knowledge of field construction skills and practices, sustainable building design principles, together with the basic visual communication skills and digital computer drawing skills necessary for entry-level architectural drafting employment and first-year architectural design transfer credits for a university architectural program.

### **LEADS TO CAREER OPPORTUNITIES SUCH AS:**

- Auditor
- Certification Manager
- Commissioner
- Construction Manager
- Green Building Designer
- Inspector
- Sustainable Building Designer

### 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](http://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>

# CONSTRUCTION MANAGEMENT AND ARCHITECTURE (AS.CMA)

## ASSOCIATE OF SCIENCE

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

**Construction Management Emphasis:**

- identify and select alternate construction education pathways and construction career opportunities.
- apply basic levels of knowledge and experience in construction craft skills and commercial business operations necessary to effectively manage small commercial and residential construction project activities.
- analyze and apply standard construction contract terms, conditions, plans, specifications, costing formats, and basic regulatory requirements applicable to a range of construction activities.
- apply basic construction management methods to monitor and control compliance with contract requirements for price, time schedule, specifications, and safety on small projects.

**Architecture Emphasis:**

- identify and select alternate architectural education pathways and architectural career opportunities.
- apply basic principles of commercial and residential construction materials and methods to architectural design.
- apply basic architectural design principles to generate an architectural design solution to a specific set of constraints.
- describe and apply sustainable environmental design principles to architectural design solutions.
- apply manual and digital techniques to produce drawings and three-dimensional models documenting architectural and engineering designs.

**Required Major Courses (20 units)**

<input type="checkbox"/> CMA-51 – Introduction to Construction Management and Architecture	3.0
<input type="checkbox"/> CMA-55 – Introduction to Structural Design and Codes	3.0
<input type="checkbox"/> CMA-57 – Construction Law and Contracts	3.0
<input type="checkbox"/> CMA-61 – Construction Field Practice: Layout, Foundations & Framing	4.0
<input type="checkbox"/> CMA-62 – Construction Field Practice: Exterior and Interior Finish	4.0
<input type="checkbox"/> CMA-81 – Computer Aided Drafting and Design I	3.0

**Required Major Courses (Complete one emphasis 15 units)**

<input type="checkbox"/> <b>CONSTRUCTION MANAGEMENT</b> – CMA-52, 53, 54, 56, 91	15.0
<input type="checkbox"/> <b>ARCHITECTURE</b> – CMA-70, 71, 72, 82, 83	15.0

**Major Elective Courses (Complete 3 units from the same emphasis as above)**

<input type="checkbox"/> <b>CONSTRUCTION MANAGEMENT</b> – CMA-63, 64, 65, 66, 84, 90, EGN-11	3.0
<input type="checkbox"/> <b>ARCHITECTURE</b> – CMA-53, 84, 90, 91, EGN-11	3.0

**SUBTOTAL: 38 UNITS**

**General Education – Required Courses**

*Students must complete one of the following General Education Plans:*

**HCCD GE (see page 76)**

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

**■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

**TOTAL: 60 UNITS**

## DIGITAL ARTS

### PROGRAMS

- Associate of Arts (A.A.)
- Certificate of Achievement



### DESCRIPTION

The Digital Arts program offers a certificate and associate degree in Digital Arts. Classes include training in graphic design, digital graphics, 2D digital illustration, 2D digital photographic imaging, digital video and audio editing, 2D and 3D digital animation, 3D modeling, storyboard development for animation and interactive digital media interface design. The AA degree in Digital Arts offers 3 tracks of specialization; graphic design for print, screen and time-based, digital photography and video, or digital animation and illustration. An imaginative blend of art, design, photography, video, animation and illustration is applied to producing digital media presentations for business, education, entertainment, telecommunication and medical industries graduates in Digital Arts are qualified for positions in graphic design, digital art, web design, game design, 2D illustration, digital photographic imaging, audio engineering, video editing, digital video, or digital media interface design. Graduates in Digital Arts with animation specialization are qualified for positions in 3D digital art, game design, storyboard art, 3D modeling, character animation, digital 3D broadcast logo design, digital 3D volumetrics, 3D animation and compositing, 2D digital art, 2D compositing, 2D chroma key, 2D texture painting, or rotoscoping.

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:

- Art Director
- Art Marketing Director
- Design Studio Manager
- Freelancer
- Game Designer
- Graphic Designer
- Layout Artist
- Multimedia Artist and Animator
- Photographer
- Publications Designer
- Web Designer

### 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](http://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>

# DIGITAL ARTS (AA.DA)

## ASSOCIATE OF ARTS

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

- demonstrate effective technical proficiency in the creation of digital artwork or projects
- design effective visual communication for print, animation, and interactive media.
- structure visual information utilizing digital design aesthetic principles.
- appraise and analyze the influence of digital art and artists on the lives of all individuals, cultures, and societies.

<b>Graphic Design</b>	Complete 2 courses from ART-12A, ART-78, ART-84, and PHO-1
<b>Digital Photography/Video</b>	Complete 2 courses from PHO-1, PHO-2, ART-12A, and ART-84
<b>Digital Animation/Illustration</b>	Complete 2 courses from ART-73, ART-3, ART-13 and ART-84

### Required Major Courses (21 units)

- ART-70 – Introduction to Graphic Design/Computer Graphics 3.0
- ART-71 – Introduction to 2D Digital Illustration 3.0
- ART-72 – Introduction to Digital Arts 3.0
- ART-74 – Digital 3D Design and Modeling 3.0
- ART-76 – Introduction to 3D Digital Animation 3.0
- ART-77 – Introduction to Digital Video and Video Editing 3.0
- ART-80 – Introduction to Digital Photography and Photographic Imaging 3.0

### Major Electives (Complete 6 units)

- ART-3 – Drawing and Composition 3.0
- ART-12A – Design 3.0
- ART-13 – Three-Dimensional Design 3.0
- ART-73 – Introduction to Digital Illustration for Animation 3.0
- ART-78 – Motion Graphics and Design Principles 3.0
- ART-84 – Digital Art Portfolio and Business Practices 3.0
- PHO-1 – Introduction to Photography 3.0
- PHO-2 – Beginning Black and White Photography 3.0

**SUBTOTAL: 27 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE (see page 76)**

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

**■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

**TOTAL: 60 UNITS**



# DIGITAL ARTS (CT.DA)

## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate effective technical proficiency in the creation of digital artwork or projects.
- design effective visual communication for print, animation, and interactive media.
- structure visual information utilizing digital design aesthetic principles.
- appraise and analyze the influence of digital art and artists on the lives of all individuals, cultures, and societies.

### 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>

### Required Major Courses (21 units)

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | ART-70 – Introduction to Graphic Design/Computer Graphic | 3.0 |
| <input type="checkbox"/> | ART-71 – Introduction to 2D Digital Illustration         | 3.0 |
| <input type="checkbox"/> | ART-72 – Introduction to Digital Arts                    | 3.0 |
| <input type="checkbox"/> | ART-74 – Digital Three Dimensional Design and Modeling   | 3.0 |
| <input type="checkbox"/> | ART-76 – Introduction to 3D Digital Animation            | 3.0 |
| <input type="checkbox"/> | ART-77 – Introduction to Digital Video and Video Editing | 3.0 |
| <input type="checkbox"/> | ART-80 – Introduction to Digital Photographic Imaging    | 3.0 |

### Major Electives (Complete 3 units)

- |                          |   |         |
|--------------------------|---|---------|
| <input type="checkbox"/> | ART-12A – Design  | 3.0     |
| <input type="checkbox"/> | ART-13 – Three Dimensional Design                       | 3.0     |
| <input type="checkbox"/> | ART-73 – Introduction to Digital Illustration Animation | 3.0     |
| <input type="checkbox"/> | ART-78 – Motion Graphics and Design Principles          | 3.0     |
| <input type="checkbox"/> | ART-84 – Digital Art Portfolio & Business Practices     | 1.0-3.0 |
| <input type="checkbox"/> | PHO-1 – Introduction to Photography                     | 3.0     |

---

**TOTAL: 24 UNITS**

# EARLY CHILDHOOD EDUCATION

## PROGRAMS

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



### DESCRIPTION

#### ASSOCIATE DEGREE FOR TRANSFER

The Associate in Science degree in Early Childhood Education (ECE) for Transfer provides a clearly articulated curricular track for students who wish to transfer to a CSU campus, while also serving the diverse needs of students interested in the breadth and depth of the field of early childhood education. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The degree was designed to facilitate students' successful transfer to certain California State University (CSU) campuses that prepare them for advanced study in a variety of graduate programs, as well as a variety of careers such as teaching, Child Development Specialist, Program Directors, and Child Life Specialists. With a BA in ECE/Child Development, students are eligible for the Master Teacher and Site Supervisor levels of the CA Child Development Permit, using the Alternative Qualifications category.

#### ASSOCIATE DEGREE

The Early Childhood Education (ECE) program offers a comprehensive course of study to prepare students for career and job opportunities in early education and care of young children from diverse family backgrounds. Includes instruction in parent education as well as preparation for employment in child development centers, family child-care settings, preschools, before- and after-school care programs, programs for children with special needs, and other ECE related-programs in the community.

The ECE curriculum provides coursework with specializations in the administration of ECE programs, infant/toddler development and care, advanced ECE curriculum, and special needs. Students will be eligible to meet the Department of Social and Employment Services Title 22 and Education Code Title 5 licensing regulations for teaching personnel and administrative staff in private and public child development programs and agencies.

As a result of ongoing changes in laws, mandates, and licensing regulations for teaching personnel and ECE programs, the information in the Permit table is subject to change. It is important for students to consult with a counselor to develop an educational plan for the desired permit or credential.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Child Development Specialist
- Community Service Agent
- Curriculum Specialist
- Day Care Administrator
- Early Intervention Specialist
- Kindergarten Teacher
- Parenting Educator
- Preschool Teacher
- Social Worker
- Teacher Assistant
- Tutor

### 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](http://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>

# EARLY CHILDHOOD EDUCATION FOR TRANSFER (AST.ECE)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- plan and organize activities in a safe and healthy learning environment for optimum development of all young children in groups of 12 to 24 children.
- assess and evaluate all children and learning environments to write reports according to state mandated guidelines.
- work with families and their children to build respectful, supportive relationships for optimum growth and development of young children.
- connect with community agencies and programs to support children, families, and the early education and care profession.

### Required Major Courses (25 units)

<input type="checkbox"/>	ECE-1 – Principles and Practices of Teaching Young Children	3.0
<input type="checkbox"/>	ECE-2 – Child, Family, School & Community Relations	3.0
<input type="checkbox"/>	ECE-4 – Introduction to Curriculum	3.0
<input type="checkbox"/>	ECE-6 – Child Growth and Development	3.0
<input type="checkbox"/>	ECE-10 – Observation and Assessment	3.0
<input type="checkbox"/>	ECE-12 – Practicum: Field Teaching Experience	4.0
<input type="checkbox"/>	ECE-19 – Health, Safety, and Nutrition in Early Childhood	3.0
<input type="checkbox"/>	ECE-53 – Teaching in a Diverse Society	3.0

**SUBTOTAL: 25 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

<b>CSU-GE</b> (see page 78)	<b>39 units</b>
<b>IGETC</b> (see page 80)	<b>37 units</b>

*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.

# EARLY CHILDHOOD EDUCATION (AS.ECE)

## ASSOCIATE OF SCIENCE

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

- plan and organize activities, providing a safe and healthy learning environment, for optimum development of all young children in groups of 12 to 24 children.
- assess and evaluate all children and learning environments to write reports according to state and federally mandated guidelines.
- work with families and their children to build respectful, supportive relationships for optimum growth and development of young children
- connect with community agencies and programs to support children, families, and the early education and care profession.

Child Development Permit issued by the Commission on Teaching Credentialing (CTC) – Educational and Experience Day Requirements	
Teacher Assistant	Requires any 6 ECE units
Associate Teacher	Requires 12 core ECE units (ECE 1, ECE 2, ECE 4, ECE 6) and 50 days of experience at 3+ hours per day
Teacher	Requires 24 ECE units (including 12 core ECE units) plus 16 General Education units (a minimum of one course in each of these 4 areas: humanities and/or fine arts, social sciences, math and/or science, and English and/or language arts) and 175 days of experience at 3+ hours per day
Master Teacher	Teacher level permit requirements plus ECE 71, 350 days of experience at 3+ hours per day, and six ECE units from the following specializations:
Curriculum	Select 6 units from ECE 9, ECE 8, ECE 54
Infant/Toddler	Select 6 units from ECE 20, ECE 21
Special Needs	Select 6 units from ECE 26, ECE 27
Administration	Select 6 units from ECE 70A, ECE 70B, ECE-71
Site Supervisor	Requires an AS with 24 ECE units, ECE 70A, ECE 70B, ECE 71 and 350 days of experience at 3+ hours per day, including at least 100 days of supervising adults
Program Director	Requires a BA with 24 ECE units, ECE 70A, ECE 70B, ECE 71 and Site Supervisor status with one program year of Site Supervisor experience

### Required Major Courses (25 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> ECE-1 – Principles and Practices of Teaching Young Children | 3.0 |
| <input type="checkbox"/> ECE-2 – Child, Family, School & Community Relations         | 3.0 |
| <input type="checkbox"/> ECE-4 – Introduction to Curriculum                          | 3.0 |
| <input type="checkbox"/> ECE-6 – Child Growth and Development                        | 3.0 |
| <input type="checkbox"/> ECE-10 – Observation and Assessment                         | 3.0 |
| <input type="checkbox"/> ECE-53 – Teaching in a Diverse Society                      | 3.0 |
| <input type="checkbox"/> ECE-19 – Health, Safety and Nutrition in Early Childhood    | 3.0 |
| <input type="checkbox"/> ECE-12 – Practicum: Field Teaching Experience               | 4.0 |

### Major Electives (Complete 6 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> ECE-8 – Math and Science in Early Childhood                      | 3.0 |
| <input type="checkbox"/> ECE-54 – Language and Early Literacy Curriculum                  | 3.0 |
| <input type="checkbox"/> ECE-9 – Creative Expressions and play in Early Childhood         | 3.0 |
| <input type="checkbox"/> ECE-20 – Infant and toddler Development                          | 3.0 |
| <input type="checkbox"/> ECE-21 – Infant Toddler Group Care                               | 3.0 |
| <input type="checkbox"/> ECE-26 – Children with Special Needs                             | 3.0 |
| <input type="checkbox"/> ECE-27 – Principles and Practices in Guiding Children’s Behavior | 3.0 |
| <input type="checkbox"/> ECE-70A – Administration I: Programs in ECE                      | 3.0 |
| <input type="checkbox"/> ECE-70B – Advanced Administration II:                            | 3.0 |
| <input type="checkbox"/> ECE-71 – Adult Supervision and Mentoring in ECE Settings         | 2.0 |

**SUBTOTAL: 31 UNITS**

### General Education – Required Courses

Students must complete the following General Education Plans: **HCCD GE** (see page 76)

- |   |   |
|---|---|
| <input type="checkbox"/> English composition                              | <input type="checkbox"/> Oral communication and Critical thinking |
| <input type="checkbox"/> Mathematical Concepts and Quantitative Reasoning |   |
| <input type="checkbox"/> Arts and Humanities                              |   |
| <input type="checkbox"/> Social and Behavioral Sciences                   |   |
| <input type="checkbox"/> Physical and Biological Sciences                 |   |
| <input type="checkbox"/> Ethnic Studies                                   |   |
| <input type="checkbox"/> Lifelong Learning and Self Development           |   |

**SUBTOTAL: 21 UNITS**

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

■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.

**TOTAL: 60 UNITS**

# EARLY CHILDHOOD EDUCATION (CT.ECE)

## CERTIFICATE OF ACHIEVEMENT

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

- plan and organize activities, providing a safe and healthy learning environment, for optimum development of all young children in groups of 12 to 24 children.
- assess and evaluate all children and learning environments to write reports according to state and federally mandated guidelines.
- work with families and their children to build respectful, supportive relationships for optimum growth and development of young children.
- connect with community agencies and programs to support children, families, and the early education and care profession.

### Required Major Courses (25 units)

<input type="checkbox"/>	ECE-1 – Principles and Practices of Teaching Young Children	3.0
<input type="checkbox"/>	ECE-2 – Child, Family, School & Community Relations	3.0
<input type="checkbox"/>	ECE-4 – Introduction to Curriculum	3.0
<input type="checkbox"/>	ECE-6 – Child Growth & Development	3.0
<input type="checkbox"/>	ECE-10 – Observation and Assessment	3.0
<input type="checkbox"/>	ECE-12 – Practicum: Field Teaching Experience	4.0
<input type="checkbox"/>	ECE-19 – Health, Safety and Nutrition in ECE Programs	3.0
<input type="checkbox"/>	ECE-53 – Teaching in a Diverse Society	3.0

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**TOTAL: 25 UNITS**

### 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>

## ECONOMICS

### PROGRAM

- **Associate in Arts for Transfer (A.A.-T)**



#### DESCRIPTION

The Associate in Arts degree in Economics for Transfer provides a clearly articulated curricular track for students who wish to transfer to baccalaureate Economics degree programs at a California State University (CSU) campus. This degree provides the lower division economics major courses required at many CSUs while exposing students to the core principles of the economics field. Economics is the study of how people choose to use scarce resources to produce goods and services and how they make allocation decisions to satisfy their wants and needs. In pursuing the Associate in Arts in Economics for Transfer degree, students acquire skills to analyze problems and then to use sound reasoning to make decisions. Students majoring in economics develop critical thinking, problem solving, and communication skills. As economic majors, students have learning opportunities that are relevant to many types of careers, including economists, public policy, government agencies and government related organizations (for example, the Federal Reserve System and the Bureau of Labor Statistics), business, finance, data analysis, accounting and education. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Actuary
- Auditor
- Business Manager
- Credit Analyst/Loan Officer
- Economist
- Financial Planner/Analyst
- Government Administrator
- Healthcare Administrator
- Institutional Research Director
- Journalist
- Teacher

#### 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 Hartnell College counselor to develop a student education plan before beginning their program.

#### TRANSFER RESOURCES

[www.ASSIST.org](http://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>

# ECONOMICS FOR TRANSFER (AAT.ECO)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- apply economic theories and economic reasoning to real life situations using the concepts of scarcity, opportunity cost and supply and demand for individual (micro) and collective (macro) decision-making.
- evaluate the goal, limitations, and mechanics of government intervention such as regulation, taxation, tariffs, quotas, and monetary and fiscal policies.

### Required Major Courses (14 units)

<input type="checkbox"/>	ECO-1 – Principles of Macroeconomics	3.0
<input type="checkbox"/>	ECO-5 – Principles of Microeconomics	3.0
<input type="checkbox"/>	MAT-2 – Calculus for Managerial Life, & Social Science	4.0
	<b>OR</b>	
	MAT-3A – Analytic Geometry and Calculus I	4.0
<input type="checkbox"/>	MAT-13 – Elementary Statistics	4.0

### Major Electives A (Complete 1 course 3-4 units)

<input type="checkbox"/>	BUS-1A – Financial Accounting	4.0
<input type="checkbox"/>	BUS-1B – Managerial Accounting	4.0
<input type="checkbox"/>	BUS-43 – Business Info Systems & Info Literacy	4.0
<input type="checkbox"/>	ECO-10 – Introduction to Economics	3.0
<input type="checkbox"/>	MAT-3B – Analytic Geometry and Calculus II	4.0
<input type="checkbox"/>	MAT-16 – Finite Mathematics	3.0

### Major Electives B (Complete 1 course 3-4 units)

<input type="checkbox"/>	Any list A courses not already used	3.0-4.0
<input type="checkbox"/>	MAT-3C – Analytic Geometry and Calculus II	4.0
<input type="checkbox"/>	MAT-4 – Linear Algebra	4.0

**SUBTOTAL: 20-22 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

# ELEMENTARY TEACHER EDUCATION

## PROGRAM

- Associate in Arts for Transfer (A.A.-T)



### DESCRIPTION

The A.A. Degree in Elementary Teacher Education is intended for students who plan to complete a bachelor's degree at a transfer institution in preparation for a California Multiple Subject Teaching Credential. Most students pursue this credential with the goal of becoming an elementary school or special education teacher.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Counselor
- Curriculum Specialist
- Day Care Administrator
- Elementary School Administrator
- Elementary School Teacher
- Resource Teacher
- Special Education Teacher
- Speech Pathologist
- Training Specialist
- Tutor



# ELEMENTARY TEACHER EDUCATION

## ASSOCIATE IN ARTS FOR TRANSFER

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

- clarify and articulate career goals of becoming a teacher.
- demonstrate a basic grasp of the disciplines most commonly taught in elementary schools in California, including physical science, biology, art, and literature in a cultural or geographic context, world geography, United States history, and United States government.
- transfer into the traditional Liberal Studies major .

### Required Major Courses (41 units)

<input type="checkbox"/> BIO-10 – General Biology	4.0
<input type="checkbox"/> COM-1 – Introduction to Public Speaking	3.0
<input type="checkbox"/> EDU-1 – Introduction to Education in a Changing World	3.0
<input type="checkbox"/> ENG-1A – College Composition and Reading	3.0
<input type="checkbox"/> ENG-1B – College Literature and Writing	3.0
<input type="checkbox"/> ENG-2 – Critical Thinking and Writing	3.0
<input type="checkbox"/> ECE-6 – Child Development	3.0
<input type="checkbox"/> GEG-10 – Geography and World Affairs	3.0
<input type="checkbox"/> GEL-1 – Physical Geology	4.0
<input type="checkbox"/> HIS-5A – World History A	3.0
<input type="checkbox"/> HIS-17A – United States History A	3.0
<input type="checkbox"/> MAT-12 – Number Systems	3.0
<input type="checkbox"/> POL-1 – American Political Institutions	3.0

### Required Major Courses (Complete 1 course 4-8 units)

<input type="checkbox"/> PHY-32 – Survey of Chemistry and Physics	4.0
<b>OR</b>	
<input type="checkbox"/> CHM-22 – The Science of Chemistry	8.0
<b>AND</b>	
<input type="checkbox"/> PHY-10 – Introduction to Physics	

### Major Electives (Complete 3 units)

<input type="checkbox"/> ART-10 – Art Appreciation	3.0
<input type="checkbox"/> MUS-1A – Music Appreciation-Historical Perspective	3.0
<input type="checkbox"/> TAC-1 – Introduction to Theatre	3.0

**SUBTOTAL: 48-52 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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.

# EMERGENCY MEDICAL TECHNICIAN – LEVEL 1

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## PROGRAMS

- **Certificates of Achievement**

### DESCRIPTION

This certificate prepares students with comprehensive instruction in the skills necessary for success as an emergency medical technician (EMT) in the emergency services industry. This program is designed to meet the needs of current students and in-service professionals interested in career advancement and those seeking to advance their EMT knowledge. This program is aligned with the EMT-Basic: National Standard Curriculum. Career opportunities after completing the certificate include EMT, Emergency Room Technician, and Search and Rescue.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Emergency Medical Technician
- Paramedic
- Firefighter

### 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](http://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>

# EMERGENCY MEDICAL TECHNICIAN – LEVEL 1 (CT.EMT)

## CERTIFICATE OF ACHIEVEMENT

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

- apply scientific knowledge in providing prehospital and emergency medical care.
- use effective communication and interpersonal skills with patients and other healthcare workers.
- operate within the role of an entry-level provider of care and contributor to the emergency medical 2 service profession.
- demonstrate high prehospital and emergency medical practice standards in skill performance and patient advocacy.
- provide competent and safe care in a variety of settings to a group of patients with diverse needs across the lifespan by demonstrating knowledgeable decision-making and judgment based on critical thinking, clinical competence, accountability, and collaboration with the patient and healthcare team.
- promote each student's personal and professional growth, health, and success.
- promote the concept of lifelong learning, including the pursuit of advanced degrees and advanced practice in the health field.
- prepare graduates eligible to seek licensure as EMTs and meet emergency medical service professional expectations.

### Required Major Courses (12 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> HES-80 – Medical Terminology          | 3.0 |
| <input type="checkbox"/> EMT-53 – Emergency Medical Technician | 9.0 |

---

**TOTAL: 12 UNITS**

\*Recommended sequence. Courses can be scheduled before or concurrently with EMT-53.

### FINANCIAL AID

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

# ENGINEERING

## PROGRAMS

- **Associate of Science (A.S.)**



### DESCRIPTION

Engineering is the science and art of applying scientific and mathematical principles, experience, judgment, and common sense to design things that benefit society. Engineers are problem-solvers who make things work faster, cheaper, and more efficiently. Technologies developed by engineers improve the ways that we live, communicate, work, travel, stay healthy, and entertain ourselves. From computer chips to cellphones and buildings to automobiles, engineering makes every aspect of our modern life possible.

Hartnell College offers a two-year lower division engineering program that prepares students for transfer in all engineering disciplines to colleges and universities in California and across the United States. The Associate in Science in Engineering offers course work in all fields of engineering from civil through mechanical and electrical and computer engineering. Students who are seeking to transfer to a four-year university and complete their Bachelor of Science in Engineering can find the courses needed to transfer in the Engineering program, as can students who are seeking employment in related fields as engineering technologists, surveyors, or construction managers. Positions for which four-year graduates in engineering are qualified can be found in the fields of engineering, engineering technology, construction management, business, programming, teaching, and research.

The first two years of the engineering curriculum at most colleges and universities have a shared core of mathematics and physics plus a programming course. Beyond that, there is specialization in several areas. As there are different disciplines within engineering, four different tracks have been developed, and each one feeds into one or more majors at the baccalaureate level. The fifth track is appropriate for engineering majors who are not explicitly listed in the first four tracks, such as chemical engineering or biomedical engineering. The five discipline clusters are:

1. Mechanical, Aerospace, and Manufacturing Engineering
2. Civil Engineering
3. Electrical Engineering
4. Computer and Software Engineering
5. General Engineering

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Aerospace Engineer
- Agricultural Engineer
- Biomedical Engineer
- Chemical Engineer
- Civil Engineer
- Computer Engineer
- Construction Engineer
- Electrical Engineer
- Environmental Engineer
- Industrial Engineer
- Manufacturing Engineer
- Materials Engineer
- Mechanical Engineer
- Nuclear Engineer
- Software Engineer

### 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 Hartnell College counselor to develop a student education plan before beginning their program.

### TRANSFER RESOURCES

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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

# ENGINEERING (AS.EGN)

## ASSOCIATE OF SCIENCE

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

- employ science and mathematical skills commonly used in engineering fields.
- design a system, component, or process to meet engineering requirements.
- examine engineering problems and determine a strategy.
- describe and differentiate modern engineering tools and practices.

### REQUIRED MAJOR COURSES:

#### COURSES SHARED BY ALL TRACKS

Course Name and Number	Units
EGN 1R Introduction to Engineering	2
MAT 3A Analytical Geometry and Calculus I	4
MAT 3B Analytical Geometry and Calculus I	4
PHY 4A General Physics I/Mechanics	4
PHY 4B General Physics II/Electricity and Magnetism	4
A programming class: Choice of EGN 5 or CSS 2A or CSS 1	3-4

**SUBTOTAL: 21-22 UNITS**

### SELECT ONE TRACK (COMPLETE 3-9 UNITS)

#### MECHANICAL/AEROSPACE/MANUFACTURING ENGINEERING TRACK

EGN 8 Statics	3
---------------	---

#### CIVIL ENGINEERING TRACK

EGN 8 Statics	3
---------------	---

#### ELECTRICAL ENGINEERING TRACK

EGN 6 Circuit Analysis	4
------------------------	---

#### COMPUTER/SOFTWARE ENGINEERING TRACK

EGN 6 Circuit Analysis	4
CSS 2A Object Oriented Programming	4
EGN 7L Computer Interface with the Physical World Laboratory	1

#### GENERAL ENGINEERING TRACK

Choose ONE of the following:

EGN 4 Materials Science and Engineering	4
EGN 6 Circuit Analysis	4
EGN 8 Statics	3

**SUBTOTAL: 3-9 UNITS**

## REQUIRED MAJOR ELECTIVES (COMPLETE 12-23 UNITS FROM SELECTED TRACK)

SELECT ONE EMPHASIS TO FOLLOW 	Units	Mechanical/ Aerospace/ Manufacturing	Civil	Electrical	Computer	General
<b>Number of ADDITIONAL units to choose</b>		<b>23</b>	<b>22</b>	<b>12</b>	<b>15</b>	<b>20</b>
<input type="checkbox"/> EGN-1L – Introduction to Engineering Lab	1	X	X	X	X	X
<input type="checkbox"/> EGN-2 – Engineering Graphics	3	X	X			X
<input type="checkbox"/> EGN-4 – Materials Science and Engineering	4	X	X			X
<input type="checkbox"/> EGN-5 – Programming and Problem-Solving in MATLAB	3			X	X	X
<input type="checkbox"/> EGN-6 – Circuit Analysis	4	X				X
<input type="checkbox"/> EGN-7L – Computer Interface with the Physical World Laboratory	1	X		X		X
<input type="checkbox"/> EGN-8 – Statics	3					X
<input type="checkbox"/> EGN-11 – Surveying	3		X			X
<input type="checkbox"/> BIO-1 – Fundamental Biological Concepts	5					X
<input type="checkbox"/> BIO-2 – General Zoology	5					X
<input type="checkbox"/> BIO-3 – General Botany	5					X
<input type="checkbox"/> CHM-1A – General Chemistry I	5	X	X	X	X	X
<input type="checkbox"/> CHM-1B – General Chemistry II	5					X
<input type="checkbox"/> CHM-12A – Organic Chemistry I	5					X
<input type="checkbox"/> CHM-12B – Organic Chemistry I	5					X
<input type="checkbox"/> PHY-4C – General Physics III/ Waves, Heat, Light, Sound, and Modern Physics	4	X	X	X	X	X
<input type="checkbox"/> MAT-3C – Analytical Geometry and Calculus III	4	X	X	X	X	X
<input type="checkbox"/> MAT-5 – Differential Equations	3	X	X	X	X	X
<input type="checkbox"/> MAT-4 – Linear Algebra	3	X	X	X	X	X
<input type="checkbox"/> CSS-1 – Intro to Computer Science & Programming Fundamentals	4					X
<input type="checkbox"/> CSS-2A – Object Oriented Programming	4			X		X
<input type="checkbox"/> CSS-2B – Data Structures and Algorithms	4			X	X	X
<input type="checkbox"/> CSS-3 – Computer Architecture and Assembly Language Programming	4				X	X
<input type="checkbox"/> CSS-7 – Discrete Structures	4				X	X

**SUBTOTAL: 37-48 UNITS**

### General Education –Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE for STEM** (see page 78)

**33 units**

**IGETC for STEM** (see page 80)

**31 units**

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

Partial IGETC-CSU or CSU-GE certification is approved to meet the AS- Engineering general education. For the partial certification: (IGETC/CSU - All AREAS will be completed with minimum units/courses as required and listed on IGETC except AREAS 3 and 4, which is approved with 6 units/2 courses. CSU-GE All AREAS will be completed with minimum units/courses as required and listed on CSU-GE except AREAS C and D, which are approved with 6 units/2 courses). These GE courses are not waived but will be completed after transfer

**TOTAL: 61-74 UNITS**

## ENGINEERING FUNDAMENTALS

### PROGRAMS

- **Certificate of Achievement**



#### DESCRIPTION

A student completing the Engineering Fundamentals Certificate of Achievement will gain a solid grounding in the basic principles that underlie all engineering disciplines. This certificate provides both academic preparation for and a pathway to internships. When combined with further study, it will lead to the Engineering Associate in Science Degree and/or transfer. This certificate is intended to be completed at the beginning of a student's course of study, while they are at the freshman level. As such, it prepares a student to enter most sophomore-level engineering and STEM support courses. This certificate is specifically designed to encourage and guide students to select their courses in a sequence which enables them to transfer as fast as possible. Recommendations based on majors are as follows:

- Civil or Mechanical engineering majors: Engineering 5 AND Chemistry 1A
- Computer or Software engineering majors: Computer Science 1 AND Computer Science 2A
- Electrical engineering majors: Computer Science 1 AND (Computer Science 2A OR Chemistry 1A)

Students should discuss which options make sense for them with their counselor.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Aerospace Engineer
- Biomedical Engineer
- Chemical Engineer
- Civil Engineer
- Computer Engineer
- Electrical Engineer
- Industrial Engineer
- Mechanical Engineer

#### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

#### FINANCIAL AID

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

# ENGINEERING FUNDAMENTALS (CT.EGN)

## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate the ability to write computer programs and apply them towards solving engineering problems.
- acquire, develop, and refine the prerequisite mathematics, physics, and chemistry foundational skills to be successful in sophomore level engineering courses such as Statics, Circuit Analysis, or Materials Science and Engineering.
- formulate and demonstrate a plan to appropriately select the courses they will need to transfer to a four-year university.

Recommended electives by major:

<b>Civil/Mechanical Engineering</b>	EGN-5, CHM-1A
<b>Computer Engineering</b>	CSS-1, CSS-2A
<b>Electrical Engineering</b>	CSS-1, CSS2A or CHM-1A

### Required Major Courses (17-19 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> MAT-3A – Analytic Geometry and Calculus I  | 4.0 |
| <input type="checkbox"/> MAT-3B – Analytic Geometry and Calculus II | 4.0 |
| <input type="checkbox"/> PHY-4A – General Physics I/Mechanics       | 4.0 |
| <input type="checkbox"/> EGN-1R – Introduction to Engineering       | 2.0 |
| <b>OR</b>   |     |
| EGN-1 – Introduction to Engineering                                 | 3.0 |
| <input type="checkbox"/> ENG-1A – College Composition and Reading   | 3.0 |
| <b>OR</b>   |     |
| ENG-1AX – College Composition and Reading                           | 4.0 |

### Major Electives (Complete 7-9 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> EGN-5 – Programming and Problem Solving in MATLAB            | 3.0 |
| <input type="checkbox"/> CSS-1 – Intro to Computer Science & Programming Fundamentals | 4.0 |
| <input type="checkbox"/> CSS-2A – Object Oriented Programming                         | 4.0 |
| <input type="checkbox"/> CHM-1A – General Chemistry I                                 | 5.0 |

**TOTAL: 24-28 UNITS**

### FINANCIAL AID

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



## ENGLISH

### PROGRAM

- Associate in Arts for Transfer (A.A.-T)



#### DESCRIPTION

The Associate in Arts in English for Transfer offers a study of composition, language, and literature designed to develop skills in reading perceptively, writing effectively, and thinking critically. The program prepares students for diverse careers in advertising, business, communications media, public relations, law, government service, and teaching. 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.

#### 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](http://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>

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Author
- Biographer
- Columnist
- Correspondent
- Creative Director
- Editor
- English Teacher
- Grant Writer
- Lawyer
- Lobbyist
- Playwright
- Public Relations
- Reporter
- Speech Writer
- Spokesperson
- Staff Writer

**ASSOCIATE IN ARTS FOR TRANSFER**

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

- apply appropriate interpretive strategies to read, discuss, and analyze a variety of works of literature within any given genre and expository texts.
- analyze and evaluate major themes and techniques found in literature and expository texts by applying appropriate writing strategies and skills.
- demonstrate an appreciation for the aesthetic value of literature and expository texts from a diversity of cultural, historical, and ethnic perspectives.

**Required Major Courses (6 units)**

- ENG-1B – College Literature and Composition 3.0
- ENG-2 – Critical Thinking and Writings 3.0

**Major Electives A (Complete 9 units)**

- ENG-22 – Studies of Poetry 3.0
- ENG-24 – The Short Story 3.0
- ENG-31 – Beginning Creative Writing 3.0
- ENG-44A – World Literature I 3.0
- ENG-44B – World Literature II 3.0
- ENG-46A – Survey of British Literature I 3.0
- ENG-46B – Survey of British Literature II 3.0
- ENG-47A – Survey of American Literature I 3.0
- ENG-47B – Survey of American Literature II 3.0

**Major Electives B (Complete 3 units)**

- ENG-17 – The Contemporary Shakespeare 3.0
- ENG-26 – Chicax Literature 3.0
- ENG-41 – Art of Steinbeck 3.0
- ENG-48 – Introduction to Children’s Literature 3.0

**SUBTOTAL: 18 UNITS**

**General Education – Required Courses**

*Students must complete one of the following General Education Plans:*

- CSU-GE (see page 78) 39 units**
- IGETC (see page 80) 37 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.

## ENGLISH FOR MULTILINGUAL SPEAKERS—BEGINNING (NCCT.ENG.M.BEG)

### PROGRAM

- **Certificate of Competency**



### DESCRIPTION

The Certificate of Competency in English for Multilingual Speakers–Beginning is awarded upon the successful completion of English for Multilingual Speakers (ENGM) 620, Beginning Reading and Writing, and ENGM 622, Beginning Speaking and Listening. This noncredit program provides students with reading, writing, listening, and speaking skills at the beginning level. The certificate prepares students for further academic and/or employment opportunities.

### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide English language learners with whole language skills at the beginning level to prepare for further academic study and better employment opportunities. Students will gain academic English skills, which include reading comprehension of short texts, increased academic vocabulary, listening for main ideas, responding to and producing questions, and sentence to paragraph level writing. Students will be able to apply those skills to further English studies, both credit and noncredit, as well as employment opportunities in the Salinas Valley. These are no-cost courses, however, students will pay for required textbooks.

**Program Objective:** Upon successful completion of this program, a student will be able to respond to and produce information and yes-no questions; understand the topic and main idea of a short talk or text; produce statements about everyday life and personal experiences; and write a short description using coherent English at the high-beginning level.

### REQUIRED COURSES

- ENGM-620 – Beginning Reading and Writing 128-144hrs
- ENGM-622 – Beginning Speaking and Listening 64-72hrs

### FOR MORE INFORMATION

**CALL (831) 755-6916**

## ENGLISH FOR MULTILINGUAL SPEAKERS—LOW INTERMEDIATE (NCCT.ENGM.LOW)

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### PROGRAM

- **Certificate of Competency**

#### DESCRIPTION

The Certificate of Competency in English for Multilingual Speakers–Low Intermediate is awarded upon the successful completion of English for Multilingual Speakers (ENGM) 630, Low-Intermediate Reading and Writing, and ENGM 632, Low-Intermediate Speaking and Listening. This noncredit program provides students with reading, writing, listening, and speaking skills at the low-intermediate level. The certificate prepares students for further academic and/or employment opportunities.

#### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide English language learners with whole language skills at the low-intermediate level to prepare for further academic study and better employment opportunities. Students will gain academic English skills, which include reading comprehension of short texts, increased academic vocabulary, listening for main ideas, responding to and producing questions, and paragraph level writing. Students will be able to apply those skills to further English studies, both credit and noncredit, as well as employment opportunities in the Salinas Valley. These are no-cost courses; however, students will pay for required textbooks.

**Program Objective:** Upon successful completion of this program, a student will be able to understand the topic and main idea of a short lecture or text, produce questions to request help or more information, write a short paragraph, use the college registration system (PAWS) to find courses and register, and access course information using CANVAS.

#### REQUIRED COURSES

- ENGM-630—Low-Intermediate Reading and Writing 122-144 hrs
- ENGM-632—Low-Intermediate Speaking and Listening 64-72 hrs

#### FOR MORE INFORMATION

CALL (831) 755-6916

## ENGLISH FOR MULTILINGUAL SPEAKERS—INTERMEDIATE (NCCT.ENGM.INT)

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### PROGRAM

- **Certificate of Competency**

#### DESCRIPTION

The Certificate of Competency in English for Multilingual Speakers–Intermediate is awarded upon the successful completion of English for Multilingual Speakers (ENGM) 640, Intermediate Reading and Writing, and ENGM 642, Intermediate Speaking and Listening.

This noncredit program provides students with reading, writing, listening, and speaking skills at the intermediate level. The certificate prepares students for further academic and/or employment opportunities.

#### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide English language learners with whole language skills at the intermediate level to prepare for further academic study and better employment opportunities.

Students will gain academic English skills, which include reading comprehension of short texts, increased academic vocabulary, listening for main ideas, responding to and producing questions, and paragraph level writing.

Students will be able to apply those skills to further English studies, both credit and noncredit, as well as employment opportunities in the Salinas Valley.

These are no-cost courses; however, students will pay for required textbooks.

**Program Objective:** Upon successful completion of this program, a student will be able to summarize short academic lectures or texts, express and defend opinions, use past tense when discussing personal or familiar topics, and use CANVAS to submit assignments and communicate with instructors.

#### REQUIRED COURSES

- ENGM-640—Intermediate Reading & Writing 122-144 hrs
- ENGM-642—Intermediate Listening & Reading 64-72 hrs

#### FOR MORE INFORMATION

CALL (831) 755-6916

## ENGLISH FOR MULTILINGUAL SPEAKERS—HIGH INTERMEDIATE (NCCT.ENG.M.HIGH)

---

### PROGRAM

- **Certificate of Competency**



### DESCRIPTION

The Certificate of Competency in English for Multilingual Speakers–High Intermediate is awarded upon the successful completion of English for Multilingual Speakers (ENGM) 650, High-Intermediate Grammar and Writing, and ENGM 658, High-Intermediate Reading and Vocabulary. This noncredit program provides students with reading, writing, listening, and speaking skills at the high-intermediate level. The certificate prepares students for further academic and/or employment opportunities.

### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide English language learners with whole language skills at the high-intermediate level to prepare for further academic study and better employment opportunities. Students will gain academic English skills, which include reading comprehension of short texts, increased academic vocabulary, use of context clues to identify the meanings of new words, use of the writing process to plan, draft, and revise a paragraph. Students will be able to apply those skills to further English studies, both credit and noncredit, as well as employment opportunities in the Salinas Valley. These are no-cost courses; however, students will pay for required textbooks.

**Program Objective:** Upon successful completion of this program, a student will be able to use a variety of sentence structures, demonstrating correct use of conjunctions; write a unified, cohesive paragraph; identify topics, main ideas, details in low-advanced readings; distinguish fact from fiction; and use context clues to identify the meaning of new vocabulary.

### REQUIRED COURSES

- ENGM-650 – High-Intermediate Writing and Grammar 128-144hrs
- ENGM-658 – High-Intermediate Reading and Writing 64-72hrs

### FOR MORE INFORMATION

CALL (831) 755-6916

## ENGLISH FOR MULTILINGUAL SPEAKERS—ADVANCED (NCCT.ENGM.ADV)

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### PROGRAM

- **Certificate of Competency**



### DESCRIPTION

The Certificate of Competency in English for Multilingual Speakers–Advanced is awarded upon the successful completion of English for Multilingual Speakers (ENGM) 660, Advanced Reading and Writing, and ENGM 662, Advanced Speaking and Listening. This noncredit program provides students with reading, writing, listening, and speaking skills at the advanced level. The certificate prepares students for further academic and/or employment opportunities.

### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide English language learners with whole language skills at the advanced level to prepare for further academic study and better employment opportunities. Students will gain academic English skills, which include drafting and revising critical response essays, reading comprehension of longer texts, group discussion and class presentation skills, and accurate note taking. Students will be able to apply those skills to transfer-level coursework, as well as employment opportunities in the Salinas Valley. These are no-cost courses; however, students will pay for required textbooks.

**Program Outcome:** Upon successful completion of this program, a student will produce and comprehend English at the advanced level. This includes participating in discussion and classroom activities as well as essay writing, summarizing articles and short lectures, and note taking.

### REQUIRED COURSES

- ENGM-660– Reading and Writing for College 80-90 hrs
- ENGM-662 – College Speaking and Listening Skills 48-54 hrs

### FOR MORE INFORMATION

CALL (831) 755-6916

# ENVIRONMENTAL SCIENCE

## PROGRAM

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



### DESCRIPTION

Environmental Science is an interdisciplinary field incorporating biology, chemistry, physics, geology, math, and economics. Environmental Science examines how humans affect the global environment. Students will gain knowledge of fundamental concepts that inform society about the environment in which we live. Environmental scientists strive to protect the environment and human health by cleaning up polluted areas, advising policymakers, or working with government and industry to reduce waste and improve conditions. Other career possibilities include academia, environmental law, environmental consulting, sustainability, and resource management.

- Completion of 60 semester units or 90 quarter units of degree-applicable courses,
- Minimum overall grade point average of 2.0,
- Minimum grade of “C” (or “P”) for each course in the major, and
- Completion of IGETC and/or CSU GE-Breadth.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- 

### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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



# ENVIRONMENTAL SCIENCE (AST.ES)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- apply the scientific method to problem solving, devising a research plan, and evaluating data and findings.
- demonstrate an understanding of environmental issues, their underlying causes and potential solutions from an interdisciplinary perspective.
- analyze, interpret, and evaluate quantitative and qualitative evidence regarding the causes and consequences of human impacts on the environment.

### Required Major Courses (15 units)

- |                          |   |     |
|--------------------------|---|-----|
| <input type="checkbox"/> | BIO-1 – Fundamental Biological Concepts | 5.0 |
| <input type="checkbox"/> | CHM-1A – General Chemistry I            | 5.0 |
| <input type="checkbox"/> | CHM-1B – General Chemistry II           | 5.0 |

### Required Major Courses (15 units)

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | BIO-48 – Environmental Science                           | 3.0 |
| <input type="checkbox"/> | GEL-1 – Physical Geology                                 | 4.0 |
| <input type="checkbox"/> | MAT-13 – Elementary Statistics                           | 4.0 |
| <input type="checkbox"/> | MAT-3A – Analytic Geometry and Calculus I                | 4.0 |
|                          | OR   |     |
| <input type="checkbox"/> | MAT-2 – Calculus for Managerial Life and Social Sciences | 4.0 |

### Restricted Major Electives: Select 3 courses (11 units)

- |                          |   |     |
|--------------------------|---|-----|
| <input type="checkbox"/> | ECO-5 – Principles of Microeconomics                  | 3.0 |
| <input type="checkbox"/> | PHY-4A – General Physics I/Mechanics                  | 4.0 |
|                          | AND   |     |
|                          | PHY-4B – General Physics II/Electricity and Magnetism | 4.0 |
|                          | OR  |     |
| <input type="checkbox"/> | PHY-2A – College Physics I                            | 4.0 |
|                          | AND   |     |
|                          | PHY-2B – College Physics II                           | 4.0 |

**SUBTOTAL: 41 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**IGETC (see page 80) 37 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.**



**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.

**TOTAL: 60 UNITS**

## FILM, TELEVISION, AND ELECTRONIC MEDIA

### PROGRAM

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



### DESCRIPTION

The Associate in Science degree in Film, Television, and Electronic Media provides a clearly articulated curricular track for students who wish to transfer to baccalaureate Film, Television, and Electronic Media (FTVE) degree programs at a California State University (CSU) campus. This degree provides the lower division FTVE major courses required at many CSUs while exposing students to the core principles of the field. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major. Courses are designed for the general education student and for those who may pursue FTVE as a major or as a career. Career options include camera operator, production technician, documentary film maker, video producer, radio DJ, radio technician, production assistant, video editor, actor, teacher, or commercial production technician. Careers with a technical emphasis include media technician, concert venue technician, theme park technician, stage manager, designer, art director, facilities manager, or technical director.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Actor
- Art Director
- Camera Operator
- Commercial Production Technician
- Concert Venue Technician
- Designer
- Documentary Film Maker
- Facilities Manager
- Media Technician
- Production Assistant
- Production Technician
- Radio DJ
- Radio Technician
- Stage Manager
- Teacher
- Technical Director
- Theme Park Technician
- Video Editor
- Video Producer

### 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](http://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>

# FILM, TELEVISION, AND ELECTRONIC MEDIA (AST.FTVE)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- demonstrate proficiency in theatre, film, television, & electronic media terminology and performance skills, its basic theories, history and techniques, culminating in a media production or live performance on stage.
- conduct and apply analysis and research skills of dramatic texts and instructional materials.
- work effectively as an ensemble member in a fully produced production formulating alternative solutions to theatrical, film, television, & electronic media production situations.
- analyze, interpret, and evaluate their own and others' work in theatre, film, television, & electronic media as a patron and participant.

### Required Major Courses (18 units)

<input type="checkbox"/>	TAC-50 – Introduction to Film: the Classics to the 1960s	3.0
<input type="checkbox"/>	TAC-51 – Television Studio Production	3.0
<b>OR</b>		
	TAC-54 – Video Production Lab – Single Camera	3.0
<input type="checkbox"/>	TAC-57 – Introduction to Electronic Media	3.0
<input type="checkbox"/>	TAC-58 – Introduction to Media Writing	3.0
<input type="checkbox"/>	TAC-59 – Beginning Audio Production	3.0
<input type="checkbox"/>	TAC-53 – Playwriting and Screenwriting	3.0
<b>OR</b>		
	ART-78 – Motion Graphics and Design Principles	3.0

**SUBTOTAL: 18 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

## GENERAL STUDIES: ARTS AND HUMANITIES

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### PROGRAMS

- Associate of Arts (A.A.)

#### DESCRIPTION

The General Studies program offers students a comprehensive education emphasizing in the study of cultural, literary, humanistic activities, artistic and creative expression of human beings. The Arts and Humanities emphasis offers students an opportunity to evaluate and interpret fundamental questions of value, culture, purpose, and meaning in a rigorous and systematic way. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments. Courses encompass subjects such as philosophy, art, ethics, theory, culture, linguistics, jurisprudence, religion, theory, literature, history, music, theater, languages and more.

By engaging in careful educational planning with a counselor, this degree is for students seeking to explore various disciplines in the Arts and Humanities before committing to a specific major for transfer to a four-year university. This program is designed for students with specific majors that currently lack predefined pathways. It is particularly suitable for those who do not have the option of pursuing an Associate Degree for Transfer (ADT). Alternatively, it accommodates students who may not have transfer plans but desire to obtain a degree in an area of personal interest or enter the workforce with a diverse skill set while also paving the way for career advancement opportunities.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Administrative or Executive Assistant
- Customer Service Representative
- General Manager
- Nonprofit Program Manager

#### 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 Hartnell College counselor to develop a student education plan before beginning their program.

#### TRANSFER RESOURCES

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

#### FINANCIAL AID

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

## GENERAL STUDIES: ARTS AND HUMANITIES (AS.GAH)

### ASSOCIATE OF ARTS

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

- foster the ability to articulate thoughts and opinions clearly to varied audiences via spoken, written, visual and other forms of communication.
- develop proficiency in a diverse array of educational outcomes, encompassing advanced reasoning skills, comprehensive general education, foundational skills, encompassing academic proficiency, critical thinking, global awareness and intercultural understanding.
- explore connections between different disciplines and demonstrate through oral and written academic work, knowledge of the arts and humanities.
- demonstrate the ability to analyze, conceptualize, evaluate, and synthesize creative and artistic expression within various contexts, including culture and disciplines.
- exemplify global citizenship through their understanding of civic engagement, ethical decision making, meaningful interactions with diverse cultures and individuals, and social justice advocacy.

#### REQUIRED MAJOR COURSES

For the 18 units required, select courses from at least two disciplines; from one of the disciplines select at least two courses. Students can double count General Education courses with the area of emphasis.

<input type="checkbox"/>	<b>American Sign Language:</b> ASL 1, 2, 3
<input type="checkbox"/>	<b>Anthropology:</b> ANT 2, 20
<input type="checkbox"/>	<b>Art:</b> ART 1A, 1B, 3, 10, 12A, 15A, 15B, 19, 70, 72, 80
<input type="checkbox"/>	<b>English:</b> ENG 1B, 17, 22, 24, 26, 31, 41, 44A, 44B, 46A, 46B, 47A, 47B, 48
<input type="checkbox"/>	<b>Ethnic Studies:</b> ETH 6, 7, 12, 56
<input type="checkbox"/>	<b>History:</b> HIS 4A, 4B, 5A, 5B, 6, 10, 17A, 17B, 40, 47, 49A, 49B, 55
<input type="checkbox"/>	<b>Music:</b> MUS 1A, 2, 5, 6, 7, 8, 20, 21, 25, 26, 42, 43, 46, 47, 48, 49
<input type="checkbox"/>	<b>Philosophy:</b> PHL 2, 5, 10
<input type="checkbox"/>	<b>Photography:</b> PHO 1, 2, 4
<input type="checkbox"/>	<b>Spanish:</b> SPA 1, 1S, 1X, 2, 2S, 2X, 3, 3S, 4, 4S
<input type="checkbox"/>	<b>Theatre and Cinema:</b> TAC 1, 2, 3, 7, 18, 20, 21, 23, 24, 25, 26, 29, 40, 50, 53, 92

**Subtotal: 18 units**

Students must complete the Hartnell College General Education Pattern (See page 76):	<b>HCCD GE 23 units</b>
For the 18 units required, select courses from at least two disciplines; from one of the disciplines select at least two courses. Students can double count General Education courses with the area of emphasis.	<b>18 units</b>
Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.	<b>19 units</b>
<b>TOTAL:</b>	<b>60 units</b>

## GENERAL STUDIES: SOCIAL AND BEHAVIORAL SCIENCES

### PROGRAMS

- **Associate of Arts (A.A.)**



#### DESCRIPTION

The General Studies program with emphasis in Social and Behavioral Sciences offers students the opportunity to cultivate a comprehensive understanding of concepts, theories, and methodologies within the diverse disciplines constituting the field. This program offers students a comprehensive education focused on the study of human behavior and society within cultural, economic, political, religious and historical context. This emphasis enables students to explore their own identity and the dynamics of human interaction within larger societal frameworks. By delving into cultural and social structures, students gain foundational knowledge about the complexities of their own societies, as well as, the behavioral and social structures present in other human societies. Course choices include history, anthropology, psychology, sociology, political science, ethnic studies and more.

By engaging in careful educational planning with a counselor, this degree is for students seeking to explore various disciplines in the Social Sciences before committing to a specific major for transfer to a four-year university. This program is designed for students with specific majors that currently lack predefined pathways. It is particularly suitable for those who do not have the option of pursuing an Associate Degree for Transfer (ADT). Alternatively, it accommodates students who may not have transfer plans but desire to obtain a degree in an area of personal interest or enter the workforce with a diverse skill set while also paving the way for career advancement opportunities.

#### **LEADS TO CAREER OPPORTUNITIES SUCH AS:**

- Administrative or Executive Assistant
- Customer Service Representative
- General Manager
- Nonprofit Program Manager

#### 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 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

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

# GENERAL STUDIES: SOCIAL AND BEHAVIORAL SCIENCES (AA.GSB)

## ASSOCIATE OF ARTS

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

- foster the ability to articulate thoughts and opinions clearly to varied audiences via spoken, written, visual and other forms of communication.
- develop proficiency in a diverse array of educational outcomes, encompassing advanced reasoning skills, comprehensive general education, foundational skills, academic proficiency, critical thinking, global awareness and intercultural understanding.
- explore connections between different disciplines and demonstrate through oral and written academic work, knowledge of the social and behavioral sciences.
- exemplify global citizenship through their understanding of civic engagement, ethical decision making, meaningful interactions with diverse cultures and individuals, and social justice advocacy.

### REQUIRED MAJOR COURSES

For the 18 units required, select courses from at least two disciplines; from one of the disciplines select at least two courses. Students can double count General Education courses with the area of emphasis.

<input type="checkbox"/>	<b>Addiction Studies:</b> AOD 1
<input type="checkbox"/>	<b>Administrative Justice:</b> ADJ 1, 3, 51
<input type="checkbox"/>	<b>Agriculture:</b> ABT 53
<input type="checkbox"/>	<b>Anthropology:</b> ANT 1, 2, 10, 20
<input type="checkbox"/>	<b>Business:</b> BUS 32
<input type="checkbox"/>	<b>Communication Studies:</b> COM 4
<input type="checkbox"/>	<b>Early Childhood Education:</b> ECE 2, 6, 53
<input type="checkbox"/>	<b>Economics:</b> ECO 1, 5, 10
<input type="checkbox"/>	<b>Education:</b> EDU 1
<input type="checkbox"/>	<b>Ethnic Studies:</b> ETH 1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 21, 56
<input type="checkbox"/>	<b>Geography:</b> GEG 1, 10
<input type="checkbox"/>	<b>Health Education:</b> HED 2, 7
<input type="checkbox"/>	<b>Health Science:</b> HES 1, 2
<input type="checkbox"/>	<b>History:</b> HIS 4A, 4B, 5A, 5B, 6, 10, 17A, 17B, 40, 46A, 46B, 47, 49A, 49B, 55
<input type="checkbox"/>	<b>Nursing:</b> NRN/NVN 70
<input type="checkbox"/>	<b>Philosophy:</b> PHL 2, 5, 10, 15
<input type="checkbox"/>	<b>Physical Education Theory:</b> PETH 5
<input type="checkbox"/>	<b>Political Science:</b> POL 1, 2, 3, 5, 6
<input type="checkbox"/>	<b>Psychology:</b> PSY 2, 6, 9, 10, 12, 14, 15, 22, 25, 33, 41, 42
<input type="checkbox"/>	<b>Social Justice Studies:</b> SJS 20, 21, 22
<input type="checkbox"/>	<b>Sociology:</b> SOC 1, 5, 8, 15, 20, 30, 41, 42
<input type="checkbox"/>	<b>Theatre &amp; Cinema:</b> TAC 7, 23

**SUBTOTAL: 18 UNITS**

Students must complete the Hartnell College General Education Pattern (See page 76):	HCCD GE 23 Units
For the 18 units required, select courses from at least two disciplines; from one of the disciplines select at least two courses. Students can double count General Education courses with the area of emphasis.	18 units
Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.	19 units
<b>TOTAL:</b>	<b>60 units</b>

## GENERAL STUDIES: STEM

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### PROGRAMS

- Associate of Arts (A.A.)



#### DESCRIPTION

The General Studies program with an emphasis in STEM allows students to develop knowledge of scientific theories, concepts, and data about both living and non-living systems. The program emphasizes the natural sciences, which examine the physical universe, its life forms, and its natural phenomena. In addition, this emphasis will explore experimental methodology, testing hypotheses, and the power of systematic questioning. Math courses within the program will emphasize the development of mathematical and quantitative reasoning skills. This program offers students a comprehensive education that integrates critical thinking, problem solving and communication skills. Subjects will include; mathematics, biological and physical sciences.

By engaging in careful educational planning with a counselor, this degree is for students seeking to explore various disciplines in the STEM field before committing to a specific major for transfer to a four-year university. This program is designed for students with specific majors that currently lack predefined pathways. It is particularly suitable for those who do not have the option of pursuing an Associate Degree for Transfer (ADT). Alternatively, it accommodates students who may not have transfer plans but desire to obtain a degree in an area of personal interest or enter the workforce with a diverse skill set while also paving the way for career advancement opportunities.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Administrative or Executive Assistant
- Customer Service Representative
- General Manager
- Nonprofit Program Manager

#### 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 Hartnell College counselor to develop a student education plan before beginning their program.

#### TRANSFER RESOURCES

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

#### FINANCIAL AID

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



## GENERAL STUDIES: STEM (AA.GSTEM)

### ASSOCIATE OF ARTS

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

- foster the ability to articulate thoughts and opinions clearly to varied audiences via spoken, written, visual and other forms of communication.
- develop proficiency in a diverse array of educational outcomes, encompassing advanced reasoning skills, comprehensive general education, foundational skills and mathematical proficiency.
- explore connections between different disciplines and demonstrate through oral and written academic work, knowledge of the stem field.
- utilize quantitative and logical reasoning to analyze information, evaluate ideas, and solve problems, demonstrating a strong foundation in analytical thinking.
- employ analytical, and critical thinking skills to assess concepts, anticipate results, and devise conclusions and solutions.

**For a total of 18 units complete courses from List A and List B.**

Students can double count General Education courses with the area of emphasis.

**REQUIRED MAJOR COURSES LIST A: Complete a minimum of 3 units from the following.**

<input type="checkbox"/> <b>Math:</b> MAT 2, 3A, 13, 24, 25, 27	<b>3-6 units</b>
---	------------------

**Subtotal of List A: 3-6 units**

**Complete the remaining units from List B to complete a total of 18 units.**

**Required Major Courses List B: Complete 12-15 units.** Select courses from at least two disciplines. Students may choose from courses in List A that have not already been counted.

**REQUIRED MAJOR COURSES LIST B: Complete 12-15 units.**

<input type="checkbox"/> <b>Agriculture:</b> ABT 90, 92
<input type="checkbox"/> <b>Anthropology:</b> ANT 1
<input type="checkbox"/> <b>Astronomy:</b> AST 1, 1L
<input type="checkbox"/> <b>Biology:</b> BIO 1, 2, 3, 5, 6, 6L, 10, 11, 12, 18, 20, 27, 30, 42, 47, 48, 48L
<input type="checkbox"/> <b>Chemistry:</b> CHM 1A, 1B, 12A, 12B, 22, 23, 60
<input type="checkbox"/> <b>Geography:</b> GEG 1
<input type="checkbox"/> <b>Geology:</b> GEL 1, 2, 6, 25
<input type="checkbox"/> <b>Math:</b> MAT 2, 3A, 3B, 3C, 4, 5, 7, 13, 24, 25, 27
<input type="checkbox"/> <b>Meteorology:</b> MET 1
<input type="checkbox"/> <b>Oceanography:</b> OCN 1
<input type="checkbox"/> <b>Physics:</b> PHY 2A, 2B, 4A, 4B, 4C, 10, 32

**Subtotal of List B: 12-15 units**

**Total Major Units: 18**

Students must complete the following General Education Plan (See page 76):	HCCD GE 23 units
For a total of 18 units complete courses from List A and List B. <b>List A: 3-6 units</b> <b>List B: 12-15 units</b>	18 units
Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.	16-19 units
<b>TOTAL:</b>	<b>60 units</b>

## GEOLOGY

### PROGRAM

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



#### DESCRIPTION

The Associate in Science degree in Geology for Transfer provides a clearly articulated curricular track for students who wish to transfer to baccalaureate geology degree programs at a California State University (CSU) campus. This degree provides the lower division geology major courses required at many CSUs while exposing students to the core principles and practices of the geology field. Students completing the Geology degree will have an introductory foundation through the study of the scientific method, Earth materials, Earth processes, and Earth history. They will acquire skills, knowledge, and abilities that enable students to use a scientific approach incorporating basic chemistry, physics, and mathematics to the study of the Earth; identify common minerals, rocks, and geomorphic features of Earth; describe the materials and elucidate the processes that comprise the dynamic Earth system; describe the evidence for and occurrence of major events in Earth History. Most common career opportunities with a baccalaureate degree include: entry-level field technician/geologist in industry (mining, oil, environmental consulting) and governmental agencies (Department of Natural Resources, Geological Surveys, National Parks). This Associate in Science in Geology for Transfer (AS-T) Degree is intended to meet the lower division requirements for geology for all CSU campuses. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Aerial/Scientific Photographer
- Agricultural Engineer
- Architect
- Computer Analyst
- Economic Geologist
- Environmental Lawyer
- Forest Ranger
- Geochemist
- Geologist
- Hydrologist
- Laboratory Technician
- Landscape Manager
- Marine Advisor
- Mathematician
- Soil Scientist
- Surveyor
- Pollution Control Specialist

#### TRANSFER PREPARATION

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#### TRANSFER RESOURCES

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## GEOLOGY (AST.GEL)

### ASSOCIATE IN SCIENCE FOR TRANSFER

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

- apply the scientific method to knowledge acquisition and transfer of information.
- demonstrate proficiency in the areas of graphical presentation, oral communication, and scientific writing.
- examine the various earth system components and their complex interaction through inquiry-based interdisciplinary curricula in the physical sciences.
- use observing systems, geospatial technology, computers, information processing and data analysis.
- explain the significance of geological resources and their economic and sustainable value for long-term habitation of the planet by humans.

#### Required Major Courses (26 units)

<input type="checkbox"/>	GEL-1 – Physical Geology	4.0
<input type="checkbox"/>	GEL-6 – History of the Earth	4.0
<input type="checkbox"/>	CHM-1A – General Chemistry I	5.0
<input type="checkbox"/>	CHM-1B – General Chemistry II	5.0
<input type="checkbox"/>	MAT-3A – Analytic Geometry and Calculus I	4.0
<input type="checkbox"/>	MAT-3B – Analytic Geometry and Calculus II	4.0

**SUBTOTAL: 26 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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**



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Guarantee.com<sup>SM</sup>**  
*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.

## HIGH SCHOOL EQUIVALENCY

### PROGRAM

- **Certificate of Competency**



**HARTNELL  
COLLEGE**

#### DESCRIPTION

The Certificate of Competency in High School Equivalency Preparation is awarded upon the successful completion of the High School Equivalency (HSE) preparation courses: HSE 640, 650, and 660 (or HSE 640S, 650S and 660S). This noncredit program is intended for individuals who are preparing to attempt the state of California approved High School Equivalency exams (GED or HiSET). This certificate also prepares students to achieve academic, career, and lifelong learning goals, including preparing to succeed in college level work.

#### PROGRAM GOALS AND OBJECTIVES:

This noncredit program will provide students without a High School Diploma or its equivalent, the necessary skills to prepare for taking and passing the GED or HiSET equivalency exams and earning a California Certificate of High School Equivalency. Students will gain academic skills including: reading comprehension, critical thinking, basic composition including writing and editing a coherent text, inferences and interpretation, arithmetic, pre-algebra, algebra and basic trigonometry skills. Students will also be able to apply those skills to the subject area tests for the GED or HiSET examinations. The program-level learning outcome for these courses is the preparation and successful completion of a high school equivalency by taking the GED/HiSET examinations, and acquiring skills necessary for continuing a student's career or academic goals. These are no-cost courses, however, students will pay for High School Equivalency (GED or HiSET) examinations. This certificate is a zero-cost textbook program. Program Objective: Upon successful completion of this program a student will be able to: Apply the academic skills necessary for continuing career or academic goals by preparing for and successfully completing a high school equivalency examination

\*There is a \$10 Student Activities fee. However, there are no tuition fees because noncredit courses do not earn units/credits.

#### REQUIRED COURSES

- HSE 640 or HSE-640s–High School Equivalency HISET/GED Level 1
- HSE-650 or HSE-650S –High School Equivalency HISET/GED Level 2
- HSE-660 or HSE-660S - High School Equivalency HISET/GED Level 3

#### FOR MORE INFORMATION

CALL (831) 770-7070

# HISTORY

## PROGRAM

- **Associate in Arts for Transfer (A.A.-T)**



### DESCRIPTION

History, in the broad sense, is the study of all human experience. It examines people, institutions, ideas, and events through past and into the future. The study of history develops cultural literacy, critical thinking, and other skills while helping to understand today and plan for tomorrow. The discipline provides us with a better understanding of ourselves as individuals and as a society. In the study of history it is more important to learn the skills of finding, interpreting, and relating historical information than it is to simply to memorize historical data. Through the study of history, a student can acquire the techniques of gathering and applying information to gain a perspective on the human condition. Fields for which BA graduates in history are qualified are law, journalism, writing, the foreign service, consulting, teaching, archiving, researching, and museum curating.

The Associate of Arts degree in History 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 meet with a counselor for specific transfer course requirements in their major.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Archivist
- Biographer
- Editor
- Foreign Service Officer
- Historian
- Historic Preservation Specialist
- International Relations Specialist
- Lawyer
- Lecturer
- Media Consultant
- Museum Curator
- Museum Technician/Specialist
- Regulatory Affairs Manager
- Research
- Teacher
- Writer/Author
- Urban Planner

### 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](http://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>

# HISTORY (AAT.HIS)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- demonstrate an understanding of the processes, peoples and events in the multicultural histories of the United States
- apply critical thinking skills in reading, comprehending, and interpreting historical scholarship.
- employ historical research methods to address historical questions using primary and secondary sources

### Required Major Courses (6 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> HIS-17A – United State History A | 3.0 |
| <input type="checkbox"/> HIS-17B – United State History B | 3.0 |

### Major Electives A (Complete 6 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> HIS-4A – Western Civilization A | 3.0 |
| <b>OR</b>  |     |
| HIS-5A – World History A                                 | 3.0 |
| <input type="checkbox"/> HIS-4B – Western Civilization B | 3.0 |
| <b>OR</b>  |     |
| HIS-5B – World History B                                 | 3.0 |

### Major Electives B (Complete 6 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> HIS-5A – World History A (if not used in List A)   | 3.0 |
| <b>OR</b>   |     |
| HIS-5B – World History B (if not used in List A)                            | 3.0 |
| <input type="checkbox"/> HIS-6 – History Mexico                             | 3.0 |
| <input type="checkbox"/> HIS-10 – History of California                     | 3.0 |
| <input type="checkbox"/> HIS-40 – History of Women in the United States     | 3.0 |
| <input type="checkbox"/> HIS-46A – Race and Ethnicity in American History A | 3.0 |
| <input type="checkbox"/> HIS-46B – Race and Ethnicity in American History B | 3.0 |
| <input type="checkbox"/> HIS-47 – Religions of the World                    | 3.0 |
| <input type="checkbox"/> HIS-49A – Chicano History A                        | 3.0 |
| <input type="checkbox"/> HIS-49B – Chicano History B                        | 3.0 |
| <input type="checkbox"/> HIS-55 – U.S. History through Film                 | 3.0 |

**SUBTOTAL: 18 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

- |                             |                 |
|-----------------------------|-----------------|
| <b>CSU-GE</b> (see page 78) | <b>39 units</b> |
| <b>IGETC</b> (see page 80)  | <b>37 units</b> |

*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<sup>SM</sup>**  
*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.

# KINESIOLOGY

## PROGRAMS

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



### DESCRIPTION

The Physical Education, Kinesiology, Health, and Athletics department provides formal educational opportunities for the development and acquisition of motor skills, improved physical fitness and their application to sports and physical activities. This Associate of Science Degree covers a broad knowledge base that represents several disciplines that include traditional physical education, exercise science, athletic training, coaching, and health science. These courses help prepare students to transfer as Physical Education and Kinesiology majors to four-year institutions.

The Physical Education and Kinesiology program offers an AA-T degree (Associate in Arts for transfer in Kinesiology). The AA-T provides a clearly articulated curriculum for students who wish to transfer to baccalaureate degree programs at California State University (CSU) campuses.

The department also offers the AS degree (Associate of Science in Kinesiology). This degree is ideal for student-athletes and students transferring out of state or to private institutions.

Baccalaureate programs in Physical Education and Kinesiology include a wide array of specialties including but not limited to: coaching, education, athletic training, industry wellness centers and allied medical fields (Physical Therapy, Occupational Therapy, etc.). The preparation for different specialties will vary. For detailed requirements for individual programs at 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:

- Athletic Trainer
- Exercise Physiologist
- Exercise Specialist
- Health Consultant
- Massage Therapist
- Nutritionist/Registered Dietitian
- Occupational Therapist
- Personal Trainer
- Physical Education Teacher
- Physical Therapist
- Recreation Director
- Sports Coach
- Sports Physiologist

### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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

# KINESIOLOGY (AAT.KIN)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- demonstrate competence in performing a variety of skill-related behaviors.
- describe health and physical activity concepts that will enable him or her to make informed decisions concerning health.
- recognize health issues, understand the similarities and contrasts among cultures.
- demonstrate sensitivity to cultural and physical diversity.
- explain the value and significance of physical activity for human development, human interaction and quality of life and its relationship to their particular disability.

### Required Major Courses (12 units)

<input type="checkbox"/> BIO-5 – Human Anatomy	4.0
<input type="checkbox"/> BIO-6 – Introductory Physiology	3.0
<input type="checkbox"/> BIO-6L – Physiology Lab	2.0
<input type="checkbox"/> PETH-1 – Introduction to Kinesiology	3.0

### Major Movement Courses: Select 3 courses from any (3) of the following areas for a Minimum of 3 units.

<input type="checkbox"/> AQUATICS – PEAC-42, 44, 61, 68	1.5
<input type="checkbox"/> COMBATIVES – PEAC-56	2.0
<input type="checkbox"/> FITNESS – PEAC-32, 36, 40, 43, 46, 47, 49, 50, 51,66, 69	0.5-2.0
<input type="checkbox"/> INDIVIDUAL SPORTS – PEAC-58, 59, 64	1.0-1.5
<input type="checkbox"/> TEAM SPORT – PEAC-41, 52, 55, 70,72	1.5

### Major Electives (Complete 7-8 units)

<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/> CHM-1A – General Chemistry	5.0
<input type="checkbox"/> HED-55 – Health Education – Advanced First Aid	3.0
<input type="checkbox"/> PHY-2A – College Physics I	4.0
<b>OR</b>	
<input type="checkbox"/> PHY-4A – General Physics/Mechanics I	4.0

**SUBTOTAL: 22-23 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78)                      39 units**

**IGETC (see page 80)                      37 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.



# KINESIOLOGY (AS.KIN)

## ASSOCIATE OF SCIENCE

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

- demonstrate competence in performing a variety of physical education activity related skills.
- describe health and physical activity concepts that will enable him or her to make informed decisions concerning health.
- demonstrate sensitivity to physical diversity, understand the similarities and contrasts among different cultures and recognize health issues.
- explain the value and significance of physical activity for human development, human interaction and quality of life and its relationship to their individual health.

### Required Major Courses (16 units)

- HED-6 – Multicultural Health Beliefs 3.0
- NUTR-1 – Nutrition 3.0
- PETH-1 – Introduction to Kinesiology 3.0
- PETH-2 – Care and Prevention of Athletic Injuries 4.0
- PSY-2 – General Psychology 3.0

### Required Major Courses (Complete 4-5 units)

- BIO-5 – Human Anatomy 4.0
- BIO-6 and BIO-6L – Introductory Physiology 5.0
- BIO-11 – Introductory Human Anatomy and Physiology 4.0

### Required Major Courses (Complete 4 units)

- CHM-22 – The Science of Chemistry 4.0
- PHY-2A – College Physics I 4.0
- PHY-10 – Introduction to Physics 4.0

### Major Electives (Select a minimum of 6 units from at least 2 of the following activities)

- RACQUET ACTIVITIES (TENNIS)
  - PEAC – 58, 59
- AQUATIC ACTIVITIES
  - PEAC – 42, 44, 61, 62, 63, 68
- TEAM ACTIVITIES
  - PEAC – 27, 40, 41, 52, 55, 56, 70, 72, 74
  - PEIN – 17, 19, 20, 21, 22, 23, 24, 25, 26
- FITNESS ACTIVITIES
  - PEAC – 32, 36, 43, 46, 47, 49, 50, 51, 56, 66, 69

### Major Electives (Complete 1 course 2-3 units)

- PETH – 3, 4, 5, 10A, 10B

### Recommended Major Electives (Select from list, none required.)

\*Required for AA-T KIN degree \*\* Required for athletic transfer participates

- \*BIO-5, \*BIO-6, \*BIO-6L, \*\*ENG-2, \*HED-55, PETH-3, PETH-4

**SUBTOTAL: 32-34 UNITS**

### General Education – Required Courses

Students must complete one of the following General Education Plans: **HCCD GE (see page 76)**

- English composition  Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.

# LAW, PUBLIC POLICY AND SOCIETY

## PROGRAM

- Associate in Arts for Transfer (A.A.-T)



### DESCRIPTION

The Associate in Arts degree in Law, Public Policy and Society prepares students for law school upon completion of a bachelor's degree. The interdisciplinary approach emphasizes the development of communication skills, introduces students to the legal field, and prepares students for further study in a variety of majors. Students who opt to pursue this course of study are encouraged to engage in further exploration of one or more specific majors as they select electives for degree completion.

The Associate in Arts degree in Law, Public Policy and Society 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 in a variety of areas. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements for their major.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Banking
- Corporate Legal Departments
- Law Offices
- Government
- Finance
- Insurance
- Other Legal Service Providers
- Politics
- Real Estate

# LAW, PUBLIC POLICY AND SOCIETY (AAT.LAW)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- recognize the relationship among race, racism, imperialism, white supremacy, colonialism, and the U.S. legal system.
- evaluate the relationship between the U.S. Constitution and the institution of slavery.
- examine the role the legal system has played in the construction of race.
- illustrate how economics, philosophy, logic, education, ethnology, anthropology, politics, sociology, history, and culture molds U.S. law and legal reasoning.
- apply analytic and conceptual tools to critically assess numerous practice areas of law, including, but not limited to the following: civil rights, criminal defense, immigration, education, and human rights. Furthermore, students will be able to demonstrate how these particular areas have historically informed and shaped their local communities.
- demonstrate a systematic understanding of the racial and legal history of people of color in the United States, including, but not limited to analyzing the following issues: naturalization and citizenship, cultural stereotypes and hate speech, history of slavery in America, the workplace and farm labor, land grants, treaty and policy making, and the hyper-masculinity and criminalization of Black and Brown males.

### Required Major Courses (22-23 units)

<input type="checkbox"/>	PHL-10 – Introduction to Ethics	3.0
<input type="checkbox"/>	COM-1 – Introduction to Public Speaking	3.0
	<b>OR</b>	
	COM-2 – Argumentation or Debate	3.0
<input type="checkbox"/>	ENG-1A – College Composition and Reading	3.0
	<b>OR</b>	
	ENG-1AX – Intensive College Composition and Reading	4.0
<input type="checkbox"/>	ENG-2 – Critical Thinking and Writing	3.0
<input type="checkbox"/>	MAT-13 – Introduction to Statistics	4.0
<input type="checkbox"/>	HIS-17A – United States History A	3.0
	<b>OR</b>	
	HIS-17B – United States History B	3.0
<input type="checkbox"/>	POL-1 – American Political Institutions	3.0

### Major Electives (Complete 2 courses from 2 of the areas listed below – 6 units)

#### Administration of Justice

<input type="checkbox"/>	ADJ-3 – Concepts of Criminal Law	3.0
	<b>OR</b>	
	ADJ-4 – Criminal Evidence	3.0
	<b>OR</b>	
	ADJ-5 – Criminal Court Process	3.0

#### Business

<input type="checkbox"/>	BUS-18 – Legal Environment of Business	3.0
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#### Economics

<input type="checkbox"/>	ECO-1 – Principles of Microeconomics	3.0
	<b>OR</b>	
	ECO-5 – Principles of Macroeconomics	3.0

#### Public Policy

<input type="checkbox"/>	SJS-20 – Introduction to Social Justice	3.0
<input type="checkbox"/>	SOC-30 – Sociology of Latina/Latino in the US	3.0

#### College Success

<input type="checkbox"/>	COU-1 – Student Success Seminar	3.0
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#### Public Policy

<input type="checkbox"/>	LAW-42 – Law and Public Service	3.0
--------------------------	---------------------------------	-----

**SUBTOTAL: 28-29 UNITS**

### General Education – Required Courses

Students must complete one of the following General Education Plans:

CSU-GE (see page 78)	39 units
IGETC (see page 80)	37 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.



**A Degree With A  
Guarantee.com<sup>SM</sup>**  
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.

**TOTAL: 60 UNITS**

## LIBERAL ARTS: PATHWAY TO HEALTH SCIENCES

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### PROGRAMS

- **Associate of Arts (A.A.)**

#### DESCRIPTION

The Liberal Arts program with emphasis in Health Sciences provides general knowledge and career-relevant skills that prepare you for a range of professions and majors. Students completing this degree will have an introductory foundation and the necessary preparation to continue in one or more of the Health Sciences fields around the Salinas Valley and beyond. This program offers students a comprehensive and interdisciplinary degree designed to provide students with a well-rounded education from various disciplines, fostering critical thinking, creativity, communication and analytical skills. Students will acquire the ability to identify and understand the body structure, physiological functions, written communication, and interpersonal growth. This degree is designed to prepare students for life in the global community by developing a core of knowledge, skills, and attitudes necessary for personal and professional success. Course choices include biology, chemistry, psychology, growth and development, nutrition and more.

By engaging in careful educational planning with a counselor, this degree is for students seeking to explore various disciplines with the Health Sciences before committing to a specific major for transfer to a four-year university. This program is designed for students with specific majors that currently lack predefined pathways. It is particularly suitable for those who do not have the option of pursuing an Associate Degree for Transfer (ADT). Alternatively, it accommodates students who may not have transfer plans but desire to obtain a degree in an area of personal interest or enter the workforce with a diverse skill set while also paving the way for career advancement opportunities.

#### **LEADS TO CAREER OPPORTUNITIES SUCH AS:**

- Advertising Account Executive
- Archivist
- Business
- College Recruiter
- Customer Service Representatives
- Editor
- Grant Writer
- Journalist
- Museum Manager
- Policy Analyst
- Publicist
- Real Estate
- Speech Writer
- Teacher

#### 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

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

#### FINANCIAL AID

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# LIBERAL ARTS: PATHWAY TO HEALTH SCIENCES (AA.LPHS)

## ASSOCIATE OF ARTS

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

- foster the ability to articulate thoughts and opinions clearly to varied audiences via spoken, written, visual and other forms of communication.
- develop proficiency in a diverse array of educational outcomes, encompassing advanced reasoning skills, comprehensive general education, foundational skills, encompassing academic proficiency, critical thinking, understanding of information literacy and intercultural understanding.
- explore connections between different disciplines and demonstrate knowledge of the health sciences through oral and written academic work.
- gain proficiency in foundational knowledge of human biology and physiology, efficiently access information, critically evaluate information, and ethically use information.

**For a total of 18 units complete courses from List A, List B and List C.**

Students can double count General Education courses with the area of emphasis.

**Required Major Courses List A:** Complete a minimum of 3 units from List A.

<b>Biology:</b> 1, 5, 6, 6L, 10, 11, 12, 18, 27, 42	3-4 units
<b>Subtotal: 3-4 units</b>	

**Required Major Courses List B:** Complete a minimum of 4 units from List B.

<b>Chemistry:</b> 1A, 1B, 22, 23, 60	4 units
<b>Subtotal: 4 units</b>	

**Complete the remaining units from List C to complete a total of 18 units.**

**Required Major Courses List C:** Complete **10-11 units** from List C.

Students may choose from courses in list A and B that have not already been counted.

<input type="checkbox"/>	<b>Anthropology:</b> 1, 2
<input type="checkbox"/>	<b>Biology:</b> 1, 5, 6, 6L, 10, 11, 12, 18, 27, 42
<input type="checkbox"/>	<b>Chemistry:</b> 1A, 1B, 12A, 12B, 22, 23, 60
<input type="checkbox"/>	<b>Early Childhood Education:</b> 19
<input type="checkbox"/>	<b>Health Education:</b> 2, 6, 7, 8, 55
<input type="checkbox"/>	<b>Health Science:</b> 1, 2, 3, 80
<input type="checkbox"/>	<b>Nutrition:</b> 1, 51
<input type="checkbox"/>	<b>Nursing:</b> NRN 70, NVN 70
<input type="checkbox"/>	<b>Physical Education Theory:</b> 1, 2
<input type="checkbox"/>	<b>Physics:</b> 10
<input type="checkbox"/>	<b>Psychology:</b> 2, 25
<input type="checkbox"/>	<b>Sociology:</b> 1, 5,

<b>Choose the General Education pattern related to your educational goal:</b>	<b>CSU-GE (see page 78)</b>	<b>39 units</b>
	<b>IGETC (see page 80)</b>	<b>34-37 units</b>
<b>Complete the 18 required units</b> For the 18 units required: Select 3 units from List A, Select 4 units from List B and Select 10-11 units from List C. Students can double count General Education courses with area of emphasis.	<b>List A</b>	<b>Select 3 units</b>
	<b>List B</b>	<b>Select 4 units</b>
	<b>List C</b>	<b>Select 10-11 units</b>
<b>Complete any elective necessary to total 60 transferable units required by the universities.</b>		<b>60 total units</b>

# MATHEMATICS

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## PROGRAM

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



### DESCRIPTION

The Associate in Science in Mathematics for Transfer offers course work in all levels of mathematics from arithmetic through differential equations and linear algebra. Students seeking improvement in their basic mathematical skills and those desiring development of advanced mathematical methods can all find meaningful activities in the Associate in Science in Mathematics for Transfer. While there are job opportunities in pure mathematics, there are even more in applied mathematics, statistics, engineering, and other technical fields relying heavily on mathematics. Positions for which four-year graduates in mathematics are qualified can be found in the fields of business, computers, teaching, and research.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Actuary
- Applications Program Manager
- Commodity Manager
- Cost Estimator/Analyst
- Database Manager
- Estate Planner
- Financial Consultant
- Investment Banker
- Mathematician
- Network Programmer
- Research Analyst
- Statistician
- Teacher
- Technical Writer
- Weight Analyst

### 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

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

### FINANCIAL AID

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# MATHEMATICS (AST.MAT)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- demonstrate proficiency in solving mathematical problems involving major concepts, theories, and principles including, but not limited to
  - applying derivatives and integrals
  - solving 2nd order differential equations
  - constructing basic mathematical proofs
- analyze data using appropriate technology to enhance mathematical understanding.

### Required Major Courses (12 units)

<input type="checkbox"/>	MAT-3A – Analytic Geometry and Calculus I	4.0
<input type="checkbox"/>	MAT-3B – Analytic Geometry and Calculus II	4.0
<input type="checkbox"/>	MAT-3C – Analytic Geometry and Calculus III	4.0

### Major Electives A (Complete 3 units)

<input type="checkbox"/>	MAT-4 – Linear Algebra	3.0
<input type="checkbox"/>	MAT-5 – Differential Equations	3.0

### Major Electives B (Complete one additional 3-4 units)

<input type="checkbox"/>	MAT-4 – Linear Algebra	3.0
<input type="checkbox"/>	MAT-5 – Differential Equations	3.0
<input type="checkbox"/>	MAT-7 – Discrete Mathematics	4.0
<input type="checkbox"/>	MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/>	CSS-2A – Object Oriented Programming	4.0
<input type="checkbox"/>	PHY-4A – General Physics I/Mechanics	4.0

**SUBTOTAL: 18-19 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78)                      39 units**

**IGETC (see page 80)                      37 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<sup>SM</sup>**  
*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.

# MUSIC

## PROGRAMS

- Associate in Arts for Transfer (A.A.-T)
- Associate of Arts (A.A.)
- Certificate of Achievement



### DESCRIPTION

The Music Program offers coursework and ensembles that embrace the diversity of our valley. Music is the universal language of the global village of the 21<sup>st</sup> century. It forms an integral part of our lives, from the musical “logos” that introduce every media program, to the songs and dances that provide identity to our diverse backgrounds. Study and participation in music has proven to further not only creativity and critical thinking, but also our sense of cooperation and community. At Hartnell, performance opportunities are available for all students in a wide range of vocal and instrumental ensembles. In addition, many courses are designed for students with no previous training in music. The department offers courses that prepare music majors for transfer to four-year universities as well as many courses for the general student.

The AA Degree in Music prepares students for transfer and careers in the following fields: credentialed school instruction, private studio instruction, vocal or instrumental performance, composition or arranging for film/television/multimedia events, sound engineering, conducting, college or university instruction, arts and education administration, and music journalism. Students intending to begin in the AA in Music should plan to take MUS-2 in the summer prior to starting their music degree. 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.

#### CERTIFICATE OF ACHIEVEMENT

This certificate prepares students to transfer to four year university music programs and to teach/perform music in non-credentialed, part-time employment situations. Musical skills needed for students to be successful in these situations include the singing and notation of diatonic melodies, ability to arrange and transpose parts for different instruments and vocal ranges, basic piano proficiency, and the ability to perform vocally or on a musical instrument, both alone and with an ensemble. Course offerings introduce the students to these skills. In addition, students acquire beginning technology skills that allow them to use computer technology to professionally notate and record music.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| ▪ Arts and Education Administrator | ▪ Music Journalist                |
| ▪ Composer                         | ▪ Music Promoter                  |
| ▪ Concert Hall Manager             | ▪ Music Therapist Teacher         |
| ▪ Conductor                        | ▪ Private Studio Instructor       |
| ▪ Disc Jockey                      | ▪ Vocal or Instrumental Performer |
| ▪ Film Music Editor                | ▪ Sound Engineer                  |
| ▪ Music Director                   |                                   |

### 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>



# MUSIC (AAT.MUS)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- analyze the harmonic structure of music from the Common Practice Period.
- sight-sing intermediate level tonal melodies.
- demonstrate piano proficiency at the lower-intermediate level.
- perform individually on an instrument or with the voice, and collaboratively in an instrumental or vocal ensemble.
- aurally identify the genre and stylistic period of examples from the western art music tradition.
- utilize computer applications for audio recording and notation.

### Required Major Courses (18 units)

<input type="checkbox"/> MUS-11 – Applied Music-Instrumental <i>(MUS-11 Course must be taken four times)</i>	2.0
<b>OR</b>	
<input type="checkbox"/> MUS-10 – Applied Music <i>(MUS-101 Course must be taken two times)</i>	2.0
<input type="checkbox"/> MUS-46 – Music Theory and Musicianship I	4.0
<input type="checkbox"/> MUS-47 – Music Theory and Musicianship II	4.0
<input type="checkbox"/> MUS-48 – Music Theory and Musicianship III	4.0
<input type="checkbox"/> MUS-49 – Music Theory and Musicianship IV	4.0

### Required Major Courses—Ensemble (Complete 4 units)

<input type="checkbox"/> MUS-20 – Hartnell College Choir	1.0
<input type="checkbox"/> MUS-21 – Hartnell Chamber Singers	1.0
<input type="checkbox"/> MUS-25 – Hartnell College Wind Ensemble	1.0
<input type="checkbox"/> MUS-26 – Jazz Ensemble	1.0
<input type="checkbox"/> MUS-37 – Hartnell Orchestra	1.0

**SUBTOTAL: 22 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

# MUSIC (AA.MUS)

## ASSOCIATE OF ARTS

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

- analyze the harmonic structure of music from the Common Practice Period.
- sight-sing intermediate level tonal melodies.
- demonstrate piano proficiency at the lower-intermediate level.
- perform individually on an instrument or with the voice, and collaboratively in an instrumental or vocal ensemble.
- aurally identify the genre and stylistic period of examples from the western art music tradition.
- utilize computer applications for audio recording and notation.

### Required Major Courses (31.5 units)

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | MUS-1A – Music Appreciation – Historical               | 3.0 |
| <input type="checkbox"/> | MUS-2 – Music Fundamentals                             | 3.0 |
| <input type="checkbox"/> | MUS-10 – Applied Music Voice                           | 2.0 |
|                          | <b><i>(MUS-10 course must be taken two times)</i></b>  |     |
|                          | <b>OR</b>  |     |
|                          | MUS-11 – Applied Music-Instrumental                    | 2.0 |
|                          | <b><i>(MUS-11 Course must be taken four times)</i></b> |     |
| <input type="checkbox"/> | MUS-13A – Beginning Piano I                            | 1.5 |
| <input type="checkbox"/> | MUS-13B – Beginning Piano II                           | 1.0 |
| <input type="checkbox"/> | MUS-14 – Intermediate Piano                            | 1.0 |
| <input type="checkbox"/> | MUS-15 – Advanced Piano                                | 1.0 |
| <input type="checkbox"/> | MUS-42 – Electronic Music                              | 3.0 |
| <input type="checkbox"/> | MUS-46 – Music Theory and Musicianship I               | 4.0 |
| <input type="checkbox"/> | MUS-47 – Music Theory and Musicianship II              | 4.0 |
| <input type="checkbox"/> | MUS-48 – Music Theory and Musicianship III             | 4.0 |
| <input type="checkbox"/> | MUS-49 – Music Theory and Musicianship IV              | 4.0 |

### Major Electives—Ensemble (Complete 4 units)

- |                          |                                   |     |
|--------------------------|-----------------------------------|-----|
| <input type="checkbox"/> | MUS-20 – Hartnell College Choir   | 1.0 |
| <input type="checkbox"/> | MUS-21 – Hartnell Chamber Singers | 1.0 |
| <input type="checkbox"/> | MUS-25 – College Wind Ensemble    | 1.0 |
| <input type="checkbox"/> | MUS-26 – Jazz Ensemble            | 1.0 |
| <input type="checkbox"/> | MUS-36 – Jazz Combo               | 1.0 |
| <input type="checkbox"/> | MUS-37 – Hartnell Orchestra       | 1.0 |

**SUBTOTAL: 35.5 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

#### HCCD GE (see page 76)

- |                          |  |                          |  |
|--------------------------|--|--------------------------|--|
| <input type="checkbox"/> | English composition                              | <input type="checkbox"/> | Oral communication and Critical thinking |
| <input type="checkbox"/> | Mathematical Concepts and Quantitative Reasoning |                          |  |
| <input type="checkbox"/> | Arts and Humanities                              |                          |  |
| <input type="checkbox"/> | Social and Behavioral Sciences                   |                          |  |
| <input type="checkbox"/> | Physical and Biological Sciences                 |                          |  |
| <input type="checkbox"/> | Ethnic Studies                                   |                          |  |
| <input type="checkbox"/> | Lifelong Learning and Self Development           |                          |  |

**SUBTOTAL: 21 UNITS**

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

- **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

**TOTAL: 60 UNITS**

# MUSIC (CT.MUS)

## CERTIFICATE OF ACHIEVEMENT

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

- sight-sing and notate diatonic melodies.
- demonstrate piano proficiency at the beginning level.
- perform individually on an instrument or with the voice, and collaboratively in an instrumental or vocal ensemble.
- arrange music for a variety of instruments and vocal ranges.
- aurally identify the genre and stylistic period of examples from the western and world art music traditions.
- utilize computer applications for audio recording or notation.

### Required Major Courses (14.5 units)

<input type="checkbox"/> MUS-2, Music Fundamentals	3.0
<input type="checkbox"/> MUS-46, Music Theory and Musicianship I	4.0
<input type="checkbox"/> MUS-47, Music Theory and Musicianship II	4.0
<input type="checkbox"/> MUS-13A, Beginning Piano I	1.5
<input type="checkbox"/> MUS-13B, Beginning Piano II	
OR	
<input type="checkbox"/> MUS-17A, Beginning Guitar I	1.0
<input type="checkbox"/> MUS-10, Applied Music Voice	
OR	
<input type="checkbox"/> MUS-11 Applied Musical Instrumental (2 semester)	1.0

### One of the Following Courses (3 units)

<input type="checkbox"/> MUS-1A, Music appreciation- Historical Perspective	3.0
<input type="checkbox"/> MUS-5, Ethnic Musics in the United States I	3.0
<input type="checkbox"/> MUS-6, Hawaiian Music	3.0
<input type="checkbox"/> MUS-7, Jazz Appreciation	3.0
<input type="checkbox"/> MUS-8, American Popular Music	3.0
<input type="checkbox"/> MUS-42, Electronic Music-History and Composition	3.0

### 2 Semesters of any of the following Courses (2 units)

<input type="checkbox"/> MUS-20, Hartnell College Choir	1.0
<input type="checkbox"/> MUS-21, Hartnell Chambers Singers	1.0
<input type="checkbox"/> MUS-25, Hartnell College Wind Ensemble	1.0
<input type="checkbox"/> MUS-26, Jazz Ensemble	1.0
<input type="checkbox"/> MUS-37, Hartnell Orchestra	1.0

**TOTAL: 19.5 UNITS**

### 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>

## NURSING—REGISTERED NURSING

### PROGRAM

- **Associate of Science (A.S.)**



#### DESCRIPTION

The Hartnell College Associate Degree in Nursing (ADN) is a defined group of pre-requisite and co-requisite courses that prepares students to become registered nurses. The four-semester course of study consists of classroom, high-fidelity simulation, nursing skills laboratory, seminar, interprofessional, and clinical experiences. While enrolled in the associate degree program, Hartnell students may enroll in transfer level courses that meet requirements for a Bachelor's of Science degree in nursing. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). After passing the licensure examination, graduates may practice as registered nurses in a variety of acute and community-based settings. Graduates demonstrate the leadership and comportsment required for a professional nurse committed to competence, caring, collaboration, and curiosity, while providing safe, quality nursing care to diverse individuals in various care settings. The Hartnell College ADN Program is fully approved by the California Board of Registered Nursing (BRN) and is accredited by the Accreditation Commission for Education in Nursing (ACEN).

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Certified Nurse Midwife
- Critical Care Nurse
- ER Nurse
- Health Care Administrator
- Health Educator
- Mental Health Nurse
- Missionary Nurse
- Nurse Administrator
- Nurse Practitioner
- Patient Educator
- Pediatric Nurse
- Public Health Nurse
- Registered Nurse
- Surgical Nurse

#### 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>

## **TRANSFER STUDENTS**

Completing the AS degree does not meet all requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems is available online at <http://www.assist.org>. Please consult with a Hartnell College counselor to review transfer requirements. Hartnell, Monterey Peninsula, Cabrillo, and Gavilan Colleges are members of the collaborative baccalaureate of science degree in nursing (BSN) program at California State University, Monterey Bay. See <https://www.hartnell.edu/NHS> and <http://nursing.csUMB.edu/>. Students transferring from other nursing programs seeking placement into the second, third, or fourth semesters of the Associate Degree in Nursing Program should contact the Dean of Academic Affairs: Nursing and Health Sciences (831.770.6146). Academic counselors evaluate transfer student transcripts for coursework equivalency. Syllabi, course outlines, and catalogs may be requested for the evaluation.

## **ACCEPTANCE TO THE NURSING (RN) PROGRAM**

The Associate Degree in Nursing (ADN) requires separate application and screening procedures that must be completed independently from Hartnell College admission. Acceptance is subject to an annual application process. Because the RN program is impacted, completion of program prerequisites does not guarantee admission. Information can be obtained from the website (<https://www.hartnell.edu/NHS>), the Nursing and Health Sciences office (831.770.6146), or the Hartnell College Nursing and Health Sciences Program academic counselor (831.755.6820). Application forms for the RN Program and informational materials are available on the Hartnell College Nursing and Health Sciences web page (<https://www.hartnell.edu/NHS>) Application forms are available in November of each year for the following Fall semester admission. Completed application forms and required documents must be submitted by the deadline date listed on the application. Students who are conditionally accepted for entry into the ADN program are required to attend a mandatory orientation. At the orientation, admission packets with health, drug, live scan, and background screenings are distributed.

### **Minimum Requirements for Admissions Eligibility:**

1. Completion of all prerequisite courses with a minimum of a “C” grade as documented on official transcripts. In-progress courses will not be accepted for admission GPA purposes. Science GPA Requirement: 2.5
2. Success in the Associate Degree in Nursing program is based on theoretical knowledge, nursing skills competency, clinical reasoning, professional behaviors, and their application in the clinical setting. To progress students must achieve at least “C” grades in all nursing courses.

Counselor – 831.755.6820

Nursing and Health Science office – 831.770.6146

Email – [NHS@hartnell.edu](mailto:NHS@hartnell.edu)

## NURSING—REGISTERED NURSING (AS.NRN)

### ASSOCIATE OF SCIENCE

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

- incorporate leadership, management, and legal-ethical principles to guide practice as a professional nurse.
- apply increasingly complex nursing judgement and theoretical concepts when providing safe nursing care to diverse individuals across the lifespan in a variety of settings.
- integrate caring into relationships and nursing interventions that positively influence health outcomes and demonstrate sensitivity to the values of others.
- communicate and collaborate with members of the interprofessional healthcare team to coordinate care and optimize health outcomes.
- model a spirit of inquiry when examining data, challenging the status quo, questioning underlying assumptions, and offering new insights to improve the quality of care.

#### Required General Education Courses:

##### **MUST BE COMPLETED PRIOR TO ACCEPTANCE INTO THE PROGRAM (24 units)**

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | BIO-5 – Human Anatomy  | 4.0 |
| <input type="checkbox"/> | BIO-6 – Introductory Physiology  | 3.0 |
| <input type="checkbox"/> | BIO-6L – Physiology Laboratory   | 2.0 |
| <input type="checkbox"/> | BIO-27 – Principles of Microbiology                                    | 4.0 |
| <input type="checkbox"/> | CHM-22 – The Science of Chemistry                                      | 4.0 |
| <input type="checkbox"/> | ENG-1A – College Composition and Reading                               | 3.0 |
| <b>OR</b>                |  |     |
|                          | ENG-1AX – Intensive College Composition and Reading                    | 4.0 |
| <input type="checkbox"/> | MAT-13 – Elementary Statistics (Recommended for Students pursuing BSN) | 4.0 |

#### Required General Education Courses:

##### **MAY BE TAKEN CONCURRENTLY WITH NRN COURSES (15 units)**

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | PSY-25 – Developmental Psychology - Lifespan   | 3.0 |
| <b>OR</b>                |  |     |
|                          | NRN-70 – Growth and Development Across the Life Span for the Healthcare Professional |     |
| <input type="checkbox"/> | ANT-2 – Introduction to Cultural Anthropology  | 3.0 |
| <b>AND</b>               |  |     |
|                          | SOC-1 – Introduction to Sociology  | 3.0 |
| <input type="checkbox"/> | Ethnic Group Course _____ (see page 76) (ETH 1, 2, 3, 4, 7, 8, 13, 21, 56)           |     |
| <input type="checkbox"/> | COM-1 – Introduction of Public Speaking  | 3.0 |
| <b>OR</b>                |  |     |
|                          | COM-3 – Survey of Human Communication  | 3.0 |

## CON'T OF NURSING—REGISTERED NURSING

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### Required Major Courses (After Acceptance into the program) (39.5 units)

#### 1<sup>st</sup> SEMESTER – 11.5 units

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<input type="checkbox"/>	NRN-110 – Foundations for Success for Registered Nursing Students	1.0
<input type="checkbox"/>	NRN-46 – Health Promotion and Foundational Health Concepts Across the Lifespan	6.5
<input type="checkbox"/>	NRN-47 – Social Determinants of health	1.5
<input type="checkbox"/>	NRN-48 – Nursing Assessment and Interventions	1.0
<input type="checkbox"/>	NRN-49 – Introduction to Pharmacology and Medication Administration	1.5

#### 2<sup>nd</sup> SEMESTER – 9 units

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<input type="checkbox"/>	NRN-56 – Care of Diverse Individuals and Families with Stable Conditions	8.0
<input type="checkbox"/>	NRN-57 – Nursing Interventions and Scenarios	0.5
<input type="checkbox"/>	NRN-58 – Application of Pharmacology for Nursing Practice Across the Lifespan	0.5

#### 3<sup>rd</sup> SEMESTER – 8 units

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<input type="checkbox"/>	NRN-66 – Care of Clients with Complex Physiological and Psychological Conditions	8.0
--------------------------	--	-----

#### 4<sup>th</sup> SEMESTER – 8 units

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<input type="checkbox"/>	NRN-76 – Care of Clients with Potential or Actual Multi-system Failure	7.0
<input type="checkbox"/>	NRN-77 – Role Transition and Care Coordination Seminar	1.0

#### Nursing and Health Sciences Electives: (recommended, not required)

---

<input type="checkbox"/>	NRN-50.41 – Supervised Nursing Skills Practice I	0.5
<input type="checkbox"/>	NRN-50.42 – Supervised Nursing Skills Practice II	0.5
<input type="checkbox"/>	NRN-50.43 – Supervised Nursing Skills Practice III	0.5
<input type="checkbox"/>	NRN-50.44 – Supervised Nursing Skills Practice IV	0.5
<input type="checkbox"/>	NRN-225 – Success Strategies for 1 <sup>st</sup> Semester RN Students	0.5
<input type="checkbox"/>	NRN-226 – Success Strategies for 2 <sup>nd</sup> Semester RN Students	0.5
<input type="checkbox"/>	NRN-227 – Success Strategies for 3 <sup>rd</sup> Semester RN Students	0.5
<input type="checkbox"/>	NRN-228 – Success Strategies for 4 <sup>th</sup> Semester RN Students	0.5
<input type="checkbox"/>	BIO-18 – Introduction to Pathophysiology	3.0
<input type="checkbox"/>	HES-1 – Introduction to Public Health	3.0
<input type="checkbox"/>	HES-2 – Health and Social Justice	3.0
<input type="checkbox"/>	HES-3 – Drugs, Health, and Society	3.0
<input type="checkbox"/>	HES-80 – Medical Terminology	3.0
<input type="checkbox"/>	LIB-6 – Information Competency in the Social Sciences	1.0
<input type="checkbox"/>	NUTR-1 – Nutrition	3.0

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**SUBTOTAL: 48.5 UNITS**

**TOTAL: 60 UNITS**

# NURSING—VOCATIONAL NURSING

## PROGRAM

- Associate of Science
- Certificate of Achievement



### DESCRIPTION

The Hartnell College Vocational Nursing (VN) Program is a defined group of prerequisite, general education, and required major courses in a 24-month program of study consisting of classroom, high-fidelity simulation, nursing skills laboratory, and clinical experiences. Licensed vocational nurses perform essential nursing services under the supervision of a registered nurse or physician. Upon successful completion of program requirements, graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN). After passing, graduates may practice as vocational nurses in a variety of settings, including but not limited to community agencies, medical offices, hospitals, and long-term care facilities. The Hartnell College VN Program is fully approved by the California Board of Vocational Nurses and Psychiatric Technicians (BVNPT) and is the first vocational nursing program in California to earn national accreditation from the Accreditation Commission for Education in Nursing.

### GAINFUL EMPLOYMENT INFORMATION:

See the certificate program cost and the employment outlook for graduates by clicking the link below:

<https://www.hartnell.edu/academics-affairs/gecp/>

### 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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS

- Home Health Care Provider
- Nursing Technician
- Nursing Assistant and Orderly
- Occupational Therapy Assistant/Aide
- Physical Therapy Aide
- Registered Nurse



## **ACCEPTANCE TO THE VOCATIONAL NURSING PROGRAM**

The VN Program requires application and screening procedures that are in addition to admission processes for Hartnell College. Because the VN program is impacted, completion of program prerequisites does not guarantee admission. Information can be obtained from the website (<http://www.hartnell.edu/NHS>), the Nursing and Health Sciences office (831.770.6146) or the Hartnell College Nursing and Allied Health academic counselor (831.755.6820).

Application forms for the VN associate degree and certificate programs are available on the Hartnell College Nursing and Health Sciences web page (<https://www.hartnell.edu/NHS>). Application forms are available in September of each year for the following Spring semester admission. Application forms and requested documents must be submitted by the deadline date. Students accepted into the VN program are required to attend a mandatory orientation. At the orientation, admission packets with forms for health, drug, and background checks are distributed. Once admitted, the student commits to full-time study for three semesters. Students are responsible for costs related to classroom and clinical learning materials, travel to clinical sites, clinical nursing skills supplies, and standardized assessments.

### **Minimum Requirements for Admissions Eligibility:**

1. Hartnell College enrollment or a Hartnell College Application for Admission on file in the Office of Admissions and Records
2. Completion of English 1A, Math 13, Psychology 2, and Biology 11 courses.
3. Completion of high school or equivalent: official high school transcript or equivalent is required. (Board of Vocational Nursing /Psychiatric Technician, Rules and Regulations, Article 5 Section 2530)

Admission is based on a lottery of those candidates who have completed an application, submitted it prior to the deadline, and meet minimal requirements. Persons not selected are encouraged to reapply. Success in the Vocational Nursing Program is based on the application of theoretical knowledge, clinical skill proficiency, and professional comportment in the clinical setting. To progress and graduate from the vocational nursing program, students must achieve at least "C" or "P" grades in all nursing courses.

**FOR MORE INFORMATION, CONTACT:** Hartnell College Nursing and Health Sciences: 831.770.6146  
Hartnell College Counselor: 831.755.6820  
Email: [NHS@hartnell.edu](mailto:NHS@hartnell.edu)

# NURSING—VOCATIONAL NURSING (AS.NVN)

## ASSOCIATE OF SCIENCE

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

- articulate the role of the vocational nurse as a member of the health care team, committed to provide safe, quality care for diverse persons and their families.
- provide rationale for judgments used in the provision of safe, quality care and for decisions that promote the health of persons.
- promote the human dignity, integrity, self-determination, and personal growth of persons, oneself, and members of the health care team.
- achieve quality care through effective communication, mutual respect, and shared decision making with the health care team.
- question the basis for nursing actions, considering research, evidence, tradition and personal preferences.

### Required General Education Courses:

#### MUST BE COMPLETED PRIOR TO ACCEPTANCE INTO THE PROGRAM – 18-24 units

<input type="checkbox"/> ENG-1A – College Composition and Reading	3.0
<b>OR</b>	
ENG-1AX – Intensive College Composition and Reading	4.0
<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/> BIO-11* – Intro to Human Anatomy & Physiology	4.0
<b>OR</b>	
BIO-5* – Human Anatomy	(4.0)
<b>AND</b>	
BIO-6* – Introductory Physiology	(3.0)
<b>AND</b>	
BIO-6L – Physiology Lab	(2.0)
<input type="checkbox"/> PSY-2* – General Psychology	3.0
<input type="checkbox"/> LIB-6 – Information Competency in the Social Science	1.0
<b>OR</b>	
Communication and Analytic Thinking Course _____ (see page 68)	3.0
<input type="checkbox"/> Ethnic Group Course _____ (see page 76)	3.0
<i>(Recommended: ENG-1A with a Multicultural Perspective)</i>	

\*Prerequisite and corequisite courses marked with an asterisk must be completed within five (5) years of entering the vocational nursing program per California Code of Regulations, Title 16: Professional Regulations, Division 25: Board of Vocational Nursing and Psychiatric Technicians of the State of California.

<sup>1</sup>Any AHA BLS for Health Care Professional course is acceptable. AHA BLS for HCPs card must be current throughout program. Not required to apply. Must be completed prior to NVN 119.

**1<sup>st</sup> SEMESTER – 16 units**

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<input type="checkbox"/>	NUTR-51* – Essential of Nutrition	3.0
	OR	
	NUTR-1 – Nutrition	(3.0)
<input type="checkbox"/>	NVN-70* – Growth & Development Across the Lifespan	3.0
	OR	
	PSY-25 – Developmental Psychology: Lifespan	(3.0)
<input type="checkbox"/>	NVN-110 – Foundations for Success for VN Students	1.0
<input type="checkbox"/>	NVN-119 – Vocational Nursing Theory I: Fundamentals	4.0
<input type="checkbox"/>	NVN-119.1 – Vocational Nursing Clinical I: Fundamentals	4.0
<input type="checkbox"/>	NVN-130A – Basic Pharmacology A	1.0

**2<sup>nd</sup> SEMESTER – 14 units**

---

<input type="checkbox"/>	NVN-121 – Vocational Nursing Theory II	6.5
<input type="checkbox"/>	NVN-121.1 – Vocational Nursing Clinical II	6.5
<input type="checkbox"/>	NVN-130B – Basic Pharmacology B	1.0

**3<sup>rd</sup> SEMESTER – 14 units**

---

<input type="checkbox"/>	NVN-123 – Vocational Nursing Theory II	6.5
<input type="checkbox"/>	NVN-123.1 – Vocational Nursing Clinical III	6.5
<input type="checkbox"/>	NVN-130C – Basic Pharmacology C	1.0

---

\*Prerequisite and corequisite courses marked with an asterisk must be completed within five (5) years of entering the vocational nursing program per California Code of Regulations, Title 16: Professional Regulations, Division 25: Board of Vocational Nursing and Psychiatric Technicians of the State of California.

<sup>1</sup>Any AHA BLS for Health Care Professional course is acceptable. AHA BLS for HCPs card must be current throughout program. Not required to apply. Must be completed prior to NVN 119.

**Nursing and Health Sciences Electives: (recommended, not required)**

---

<input type="checkbox"/>	NVN-225 – Success Strategies for Vocational Nursing: Fundamentals	0.5
<input type="checkbox"/>	NVN-226 – Success Strategies for Vocational Nursing: Health Promotion	0.5
<input type="checkbox"/>	NVN-227 – Success Strategies for Vocational Nursing: Care Coordination	0.5
<input type="checkbox"/>	NVN-210 – Intravenous Therapy and Blood Withdrawal Techniques	2.0

**SUBTOTAL: 63-65.5 UNITS**

# NURSING—VOCATIONAL NURSING (CT.NVN)

## CERTIFICATE OF ACHIEVEMENT

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

- articulate the role of the vocational nurse as a member of the health care team, committed to provide safe, quality care for diverse persons and their families.
- provide rationale for judgments used in the provision of safe, quality care and for decisions that promote the health of persons.
- promote the human dignity, integrity, self-determination, and personal growth of persons, oneself, and members of the health care team.
- achieve quality care through effective communication, mutual respect, and shared decision making with the health care team.
- question the basis for nursing actions, considering research, evidence, tradition and personal preferences.

### Required General Education Courses:

#### MUST BE COMPLETED PRIOR TO ACCEPTANCE INTO THE PROGRAM – 15-21 units

- |                          |   |       |
|--------------------------|---|-------|
| <input type="checkbox"/> | ENG-1A – College Composition and Reading              | 3.0   |
|                          | OR  |       |
|                          | ENG-1AX – Intensive College Composition and Reading   | (4.0) |
| <input type="checkbox"/> | MAT-13 – Elementary Statistics                        | 4.0   |
| <input type="checkbox"/> | HES-120 <sup>1</sup> – AHS Basic Life Support for HCP | (0.5) |
| <input type="checkbox"/> | BIO-11* – Intro to Human Anatomy & Physiology         | 4.0   |
|                          | OR  |       |
|                          | BIO-5* – Human Anatomy                                | (4.0) |
|                          | <b>AND</b>  |       |
|                          | BIO-6* – Introductory Physiology                      | (3.0) |
|                          | <b>AND</b>  |       |
|                          | BIO-6L* – Physiology Lab                              | (2.0) |
| <input type="checkbox"/> | PSY-2* – General Psychology                           | 3.0   |

#### 1<sup>st</sup> SEMESTER – 16 units

- |                          |   |       |
|--------------------------|---|-------|
| <input type="checkbox"/> | NUTR-51* – Essential of Nutrition                       | 3.0   |
|                          | OR  |       |
|                          | NUTR-1 – Nutrition                                      | (3.0) |
| <input type="checkbox"/> | NRN/NVN-70* – Growth & Development. Across the Lifespan | 3.0   |
|                          | OR  |       |
|                          | PSY-25 – Developmental Psychology: Lifespan             | (3.0) |
| <input type="checkbox"/> | NVN-110 – Foundations for Success for VN Students       | 1.0   |
| <input type="checkbox"/> | NVN-119 – Vocational Nursing Theory I: Fundamentals     | 4.0   |
| <input type="checkbox"/> | NVN-119.1 – Vocational Nursing Clinical I: Fundamentals | 4.0   |
| <input type="checkbox"/> | NVN-130A – Basic Pharmacology A                         | 1.0   |

## CON'T OF NURSING—VOCATIONAL NURSING

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### 2<sup>nd</sup> SEMESTER – 14 units

---

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | NVN-121 – Vocational Nursing Theory II     | 6.5 |
| <input type="checkbox"/> | NVN-121.1 – Vocational Nursing Clinical II | 6.5 |
| <input type="checkbox"/> | NVN-130B – Basic Pharmacology B            | 1.0 |

### 3<sup>rd</sup> SEMESTER – 14 units

---

- |                          |   |     |
|--------------------------|---|-----|
| <input type="checkbox"/> | NVN-123 – Vocational Nursing Theory II      | 6.5 |
| <input type="checkbox"/> | NVN-123.1 – Vocational Nursing Clinical III | 6.5 |
| <input type="checkbox"/> | NVN-130C – Basic Pharmacology C             | 1.0 |

### Nursing and Allied Health Electives: (recommended, not required)

---

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | NVN-225 – Success Strategies for Vocational Nursing: Fundamentals      | 0.5 |
| <input type="checkbox"/> | NVN-226 – Success Strategies for Vocational Nursing: Health Promotion  | 0.5 |
| <input type="checkbox"/> | NVN-227 – Success Strategies for Vocational Nursing: Care Coordination | 0.5 |
| <input type="checkbox"/> | NVN-210 – Intravenous Therapy and Blood Withdrawal Techniques          | 2.0 |

---

\*Prerequisite and corequisite courses marked with an asterisk must be completed within five (5) years of entering the vocational nursing program per California Code of Regulations, Title 16: Professional Regulations, Division 25: Board of Vocational Nursing and Psychiatric Technicians of the State of California.

<sup>1</sup> Any AHA BLS for Health Care Professional course is acceptable. AHA BLS for HCPs card must be current throughout program. Not required to apply. Must be completed prior to NVN 119.

**TOTAL: 57-65 UNITS**

# PHOTOGRAPHY

## PROGRAMS

- Associate of Arts (A.A.)
- Certificate of Achievement



## DESCRIPTION

Photography is an omnipresent, integral part of life in the 21<sup>st</sup> Century. It is the basis of visual media such as filmmaking, video, and digital imaging. The study of photography involves both the development of a technical, skill-based knowledge, as well as an appreciation for how the medium has changed and continues to shape the values, the cultures and the lives of everyone globally.

Photography is more than a means to make a visual record; it has also become a tool of change; a form of art; a means of learning, and a platform for communicating ideas.

The photography faculty is committed to empowering students with the ability to apply photo imaging to their lives for practical, professional, and artistic purposes. Hartnell photo instruction prepares students to achieve personal enrichment and development, to acquire abilities needed to produce photographic art of high aesthetic value, and to develop or hone professional skills. Additional general education courses will prepare students for advancement to college and university study. Photography offers careers in the following areas: advertising; photographic art; fashion photography; commercial portrait; digital effects; photojournalism; editorial, wedding, and special event photography; industrial photography; travel, adventure, and pet photography; scientific photography; forensic photography; and documentary photography.

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:

- Advertising
- Commercial Portrait
- Digital Effects
- Editorial, Wedding & Special Event Photography
- Fashion Photography
- Forensic Photography
- Industrial Photography
- Photo Journalism
- Photographic Art
- Scientific Photography
- Travel, Adventure & Pet Photography

## 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>

# PHOTOGRAPHY (AA.PHO)

## ASSOCIATE OF ARTS

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

- demonstrate effective technical proficiency with film and digital media.
- structure visual information to produce images of intermediate level aesthetic quality.
- interpret and produce photographs that communicate intellectually and emotionally.
- demonstrate an intermediate knowledge of the history of photography.
- demonstrate an awareness of the influence of photography on the lives of individuals, cultures, and societies.

### Required Major Courses (21 units)

<input type="checkbox"/> PHO-1 – Introduction to Photography	3.0
<input type="checkbox"/> PHO-2 – Beginning Black and White Photography	3.0
<input type="checkbox"/> PHO-3 – Advanced Photography Lab	3.0
<input type="checkbox"/> PHO-4 – Portfolio Photography	3.0
<input type="checkbox"/> ART-12A – Design	3.0
<input type="checkbox"/> ART-72 – Introduction to Digital Arts	3.0
<input type="checkbox"/> ART-80 – Intro to Digital Photography & Photographic Imaging	3.0

### Major Electives A (Complete 3 units)

<input type="checkbox"/> ART-1A – Art History Survey I	3.0
<input type="checkbox"/> ART-1B – Art History Survey II	3.0
<input type="checkbox"/> ART-3 – Drawing and Composition	3.0

### Major Electives B (Complete 3 units)

<input type="checkbox"/> ART-6A – Watercolor and Gouache	3.0
<input type="checkbox"/> ART-6B – Oils	3.0
<input type="checkbox"/> ART-6C – Acrylics	3.0
<input type="checkbox"/> ART-10 – Art Appreciation	3.0
<input type="checkbox"/> ART-70 – Graphic Design/Computer Graphics	3.0
<input type="checkbox"/> ART-71 – Introduction to 2D digital Illustration	3.0
<input type="checkbox"/> ART-77 – Introduction to Digital Video and Video Editing	3.0

**SUBTOTAL: 27 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- English composition     Oral communication and Critical thinking
- Mathematical Concepts and Quantitative Reasoning
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Ethnic Studies
- Lifelong Learning and Self Development

**SUBTOTAL: 21 UNITS**

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

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

**TOTAL: 60 UNITS**

# PHOTOGRAPHY (CT.PHO)

## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate effective technical proficiency with film and digital media.
- structure visual information to produce images of intermediate level aesthetic quality.
- interpret and produce photographs that communicate intellectually and emotionally.
- demonstrate an intermediate knowledge of the history of photography.
- demonstrate an awareness of the influence of photography on the lives of individuals, cultures, and societies.

### Required Major Courses (21 units)

<input type="checkbox"/>	PHO-1 – Introduction to Photography	3.0
<input type="checkbox"/>	PHO-2 – Beginning Black and White Photography	3.0
<input type="checkbox"/>	PHO-3 – Advanced Photography Lab	3.0
<input type="checkbox"/>	PHO-4 – Portfolio Photography	3.0
<input type="checkbox"/>	ART-12A – Design	3.0
<input type="checkbox"/>	ART-70 – Graphic Design/Computer Graphics	3.0
<input type="checkbox"/>	ART-80 – Intro to Digital Photo & Photographic Imaging	3.0

### Major Electives (Complete 3 units)

<input type="checkbox"/>	ART-1A – Art History Survey I	3.0
<input type="checkbox"/>	ART-1B – Art History Survey II	3.0
<input type="checkbox"/>	ART-77 – Digital Video, Editing and Production	3.0

**TOTAL: 24 UNITS**

### FINANCIAL AID

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



## PHYSICS

### PROGRAM

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



#### DESCRIPTION

Physics is the natural science involving a general analysis of nature, conducted in order to understand how the universe behaves. It involves the study of matter and its motion through space and time, along with related concepts such as energy and force. Physics overlaps with many interdisciplinary areas such as astronomy, biology, chemistry, and geology. Physics also makes significant contributions through advances in new technologies that arise from theoretical breakthroughs. Research in physics includes the following specialty areas: condensed matter physics; atomic, molecular, and optical physics; particle physics; astrophysics; geophysics and biophysics. Some positions for which four-year graduates in physics are qualified are in research, teaching, engineering, medicine, and industry.

The Associate in Science degree in Physics 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:

- Aerodynamicist
- Astro Physicist
- Chemical Physicist
- Computer System Engineer
- Geophysicist
- Laboratory Technician
- Medical Physicist
- Meteorologist
- Nuclear Physicist
- Physics Teacher
- Process Engineer
- Researcher
- Satellite Data Analyst
- Technical Consultant

#### 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](http://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>

# PHYSICS (AST.PHY)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- apply fundamental physics laws, principles and widely accepted theories.
- demonstrate proficiency in solving problems that are appropriate to first-year-university students of calculus-level physics courses.
- collect and analyze data effectively using basic laboratory equipment, and present results and conclusions in formally structured laboratory reports.

### Required Major Courses (24 units)

<input type="checkbox"/>	PHY-4A – General Physics I/Mechanics	4.0
<input type="checkbox"/>	PHY-4B – General Physics II/Electricity and Magnetism	4.0
<input type="checkbox"/>	PHY-4C – General Physics III/Waves, Heat, Light, Sound and Modern Physics	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
<input type="checkbox"/>	MAT-3C – Analytic Geometry and Calculus III	4.0

### Major Electives (None Required)

<input type="checkbox"/>	CHM-1A – General Chemistry I	5.0
<input type="checkbox"/>	CHM-1B – General Chemistry II	5.0
<input type="checkbox"/>	CSS-4 – Introduction to Scientific Programming	4.0
<input type="checkbox"/>	MAT-4 – Linear Algebra	3.0
<input type="checkbox"/>	MAT-5 – Differential Equations	3.0

**SUBTOTAL: 24 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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.

## POLITICAL SCIENCE

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### PROGRAM

- **Associate in Arts for Transfer (A.A.-T)**



### DESCRIPTION

The Associate in Arts in Political Science for Transfer allows students to focus their major course work and required electives in a social science concerned with the description and analysis of political, and especially governmental, institutions and processes. Increasingly, the emphasis is placed on how governments deal with specific policy problems such as war and peace, poverty, crime, education, energy, pollution, or inter-group relations, and on the factors that affect these problems. The study of political science provides one with the concepts, theories and methods necessary to analyze these problems scientifically.

Fields for which BA graduates in political science are qualified are government work in the legislative or executive branches, the legal field as an attorney or paralegal, the military as an officer, a professional sales representative, or marketing professional.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Attorney
- Government Employee
- Marketing Professional
- Military Officer
- Paralegal
- Professional Sales Representative

### 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](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Major Search Engine

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

### FINANCIAL AID

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

# POLITICAL SCIENCE (AAT.POL)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- demonstrate an ability to evaluate the governmental structures established by the Constitution of the United States of America and the California State Constitution.
- apply critical thinking skills in reading, comprehending, and interpreting political science scholarship.
- employ political science research methods to address political questions using primary and secondary sources.

### Required Major Courses (16 units)

<input type="checkbox"/>	POL-1 – American Political Institution	3.0
<input type="checkbox"/>	POL-2 – Introduction to Comparative Politics	3.0
<input type="checkbox"/>	POL-3 – Introduction to International relations	3.0
<input type="checkbox"/>	POL-6 – Introduction to Contemporary Political Thought	3.0
<input type="checkbox"/>	MAT-13 – Elementary Statistics	4.0

### Major Electives (Complete 6 units)

<input type="checkbox"/>	ECO-1 – Principles of Macroeconomics	3.0
<input type="checkbox"/>	ECO-5 – Principles of Microeconomics	3.0
<input type="checkbox"/>	ETH-1 – Introduction to Ethnic Studies	3.0
<input type="checkbox"/>	POL-5 – Chicano Politics & American Political System	3.0
<input type="checkbox"/>	SOC-1 – Introduction to Sociology	3.0

**SUBTOTAL: 22 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

<b>CSU-GE</b> (see page 78)	<b>39 units</b>
<b>IGETC</b> (see page 80)	<b>37 units</b>

*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  
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*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.

# PSYCHOLOGY

## PROGRAMS

- **Associate in Arts for Transfer (A.A.-T)**

### DESCRIPTION

Psychology is the scientific discipline concerned with the study of the mind. It is a natural and a social science concerned with the study of human behavior. As such, it is a broad discipline which involves both pure science and practical application of science to matters of everyday living.

The Psychology program offers two associate degrees: The AA degree (associate degree in psychology) and the AA-T degree (associate degree in psychology for transfer). The AA degree requires calculus along with more psychology courses (as opposed to the AA-T degree), and is recommended for students wishing to transfer to a University of California (UC) campus. The AA-T provides a clearly articulated curriculum for students who wish to transfer to a California State University (CSU) campus. All students should meet with a counselor to determine which program would be most beneficial for their goals and to determine which courses are required for them to transfer to their desired university.

The program provides students with a basic understanding of motivation and behavior that is valuable to many careers in business, government, education, and health care. Becoming a “psychologist,” however, requires graduate level training. Psychologists with graduate degrees and professional certificates have a broad range of employment opportunities including clinical practice, research, and teaching. Hartnell College offers lower division transfer courses to meet the requirements for most baccalaureate majors offered by accredited colleges and universities. Psychology and counseling faculty are excellent resources for additional career information.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Academic Counselor
- Alcohol/Drug Counselor
- Career Counselor
- Child Psychologist
- Community Relations Director
- Corrections Officer
- Health Educator
- Mental Health Coordinator
- Nonprofit Director
- Psychiatrist
- Social Worker
- Student Affairs Administrator
- Teacher



### 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](http://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>

# PSYCHOLOGY (AAT.PSY)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- compare and contrast the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- evaluate basic research methods in psychology, including research design, data analysis, and interpretation.
- demonstrate critical thinking and skeptical inquiry, and use the scientific approach to solving problems related to behavior and mental processes.
- apply psychological principles to personal, social, and organizational issues.

### Required Major Courses (14 units)

<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/> PSY-2 – General Psychology	3.0
<input type="checkbox"/> PSY-9 – Research Methods in Psychology	4.0
<input type="checkbox"/> PSY-10 – Introduction to Biological Psychology	3.0

### Major Electives Courses (Complete 3 units)

<input type="checkbox"/> PSY-14 – Child Psychology	3.0
<input type="checkbox"/> PSY-25 – Developmental Psychology –Lifespan	3.0

### Major Electives Courses (Complete 3 units)

<input type="checkbox"/> PSY-6 – Social Psychology	3.0
<input type="checkbox"/> PSY-15 – Human Sexuality	3.0
<input type="checkbox"/> PSY-22 – Abnormal Psychology	3.0

**SUBTOTAL: 20 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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.

## PUBLIC HEALTH

### PROGRAM

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



#### DESCRIPTION

The Associate in Science in Public Health Science for Transfer degree prepares leaders who promote community health, prevent disease, and improve environmental conditions in which people can be healthy. The Associate in Science in Public Health Science for Transfer degree is interdisciplinary in nature and prepares students for a variety of careers in schools, non-profit organizations, government agencies, hospitals, and wellness programs.

The Associate in Science in Public Health Science for Transfer degree provides a clearly articulated curricular track for students who wish to transfer to baccalaureate degree programs at a California State University (CSU) campus in areas such as Public Health, Health Science, Kinesiology with a Health Education or a Health and Wellness Promotion concentration, Collaborative Health and Human Services with Community Health option, and related fields. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Community Health Educator
- Community Outreach Coordinator
- Diet Counselor
- Environmental Advocate
- Events Coordinator
- Family Planning Counselor
- Grant Writer
- Head Start Health Specialist
- Health Journalist
- Health Resource Specialist
- Public Health Inspector
- Social Services Coordinator
- Teen Outreach Coordinator
- Youth Educator
- Wellness Consultant

#### 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](http://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>

# PUBLIC HEALTH SCIENCE (AST.PHS)

## ASSOCIATE IN SCIENCE FOR TRANSFER

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

- describe social, political, and economical issues that impact public health and healthcare delivery systems in the United States.
- explain how functional anatomy and physiological regulations affect health and wellness.
- apply basic epidemiological principles used to study patterns of disease and injury among diverse populations.
- explain how social, behavioral, cultural, and environmental factors impact the health status of individuals and populations.
- demonstrate effective communication and problem-solving skills necessary for addressing contemporary public health issues.

### Required Major Courses (30-31 units)

<input type="checkbox"/>	BIO-5 – Human Anatomy	4.0
<input type="checkbox"/>	BIO-6 – Introductory Physiology	3.0
<input type="checkbox"/>	BIO-6L – Physiology Laboratory	2.0
<input type="checkbox"/>	BIO-10 – General Biology	4.0
<input type="checkbox"/>	CHM-1A – The General Chemistry I	5.0
<b>OR</b>		
	CHM-22 – The Science of Chemistry I	4.0
<input type="checkbox"/>	HED-2 – Individual Health and Wellness	3.0
<input type="checkbox"/>	HES-1 – Introduction to Public Health	3.0
<input type="checkbox"/>	MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/>	PSY-2 – General Psychology	3.0

### Major Electives (Complete 3 units)

<input type="checkbox"/>	ECO-1 – Principles of Macroeconomics	3.0
<input type="checkbox"/>	ECO-5 – Principles of Microeconomics	3.0
<input type="checkbox"/>	HES-2 – Health and Social Justice	3.0
<input type="checkbox"/>	HES-3 – Drug, Health and Society	3.0
<input type="checkbox"/>	NUTR-1 – Nutrition	3.0
<input type="checkbox"/>	PSY-15 – Human Sexuality	3.0
<input type="checkbox"/>	SOC-1 – Introduction to Sociology	3.0

**SUBTOTAL: 33-34 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.



## RESPIRATORY CARE

### PROGRAM

- Associate of Science (A.S.)



#### DESCRIPTION

The Associate of Science in Respiratory Care prepares students to work as Registered Respiratory Therapists (RRTs) in acute and community-based settings such as hospitals, long term care facilities, home care, and clinics. RRTs help people of all ages with a variety of cardiopulmonary disorders. Responsibilities of an RRT include: evaluating and interpreting clinical and laboratory data to recommend treatment, consulting with members of the healthcare team, educating patients and families, responding to emergencies, and managing patients on life support.

The four-semester course of study consists of classroom, high-fidelity simulation, skills laboratory, seminar, and clinical experiences. Students must travel to clinical sites. Clinical experiences are completed in Monterey, Santa Clara, San Luis Obispo, and Santa Barbara counties. Upon successful completion of program requirements, graduates are eligible to take the National Board of Respiratory Care (NBRC) Registry Examination.

**Program Outcomes:** The Respiratory Care Program (RCP) at Hartnell College will provide skilled graduates to the healthcare community who have obtained their professional license (RCP) and credentials (RRT). The goal of the program is to prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Respiratory Therapist
- Educator
- Pulmonary Function Technologist

#### 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>

## TRANSFER STUDENTS

Completing the AS degree does not meet all requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems is available online at <http://www.assist.org>. Please consult with a Hartnell College counselor to review transfer requirements.

Students transferring from other respiratory care programs seeking placement into the second, third, or fourth semesters of the Associate Degree in Respiratory Care Program at Hartnell College should contact the Dean of Academic Affairs: Nursing and Health Sciences (831.770.6146). The Dean and academic counselors evaluate all transfer student records for course work equivalency. Syllabi, course outlines, and catalogs may be requested for the evaluation.

## ACCEPTANCE TO THE RESPIRATORY CARE PROGRAM

The Respiratory Care Program requires separate application and screening procedures that must be completed independently from regular admission. Because the Respiratory Care program is impacted, completion of program prerequisites does not guarantee admission. Information can be obtained from the website (<https://www.hartnell.edu/academics-affairs/academics/NHS/index.html>), the Nursing and Health Sciences office (831.770.6146), or the Hartnell College Nursing and Health Sciences Program academic counselor (831.755.6820).

Application forms for the Respiratory Care Program and informational materials are available on the Hartnell College Respiratory Care Program website (<https://www.hartnell.edu/academics-affairs/academics/NHS/index.html>). Application forms are posted in December of each year for the following fall semester. Completed application forms and required documents must be submitted by the deadline date as stated on the application. Students are responsible for cost associated with uniforms, clinical and skills supplies, standardized tests and travel expenses to clinical sites located in Monterey, Santa Clara, Santa Barbara and San Luis Obispo counties. Students accepted for entry into the Respiratory Care Program are required to attend the mandatory RCP Orientation Session. At the orientation, admission packets with health/drug screening and background check materials are distributed. Questions regarding these screenings should be directed to the Dean of Academic Affairs; Nursing and Health Sciences.

### Minimum Requirements for Admissions Eligibility:

1. Hartnell College enrollment or a Hartnell College Application for Admission on file in the Office of Admissions and Records
2. Completion of all prerequisite courses with a minimum of a "C" grade as documented on official transcripts. In-progress courses will not be accepted for admission GPA purposes. Science GPA Requirement: 2.5
3. Current American Heart Association Healthcare Provider Basic Life Support certification (required prior to entry into the program)

Success in the Respiratory Care Program is based on theoretical knowledge, RC skills proficiency, clinical reasoning, professional behaviors, and their application in the clinical setting. Students must achieve at least "C" grades in all RC major courses.

**BACCALAUREATE PREPARATION:** Students should consult with a counselor and appropriate college catalog for specific transfer requirements.

**FOR MORE INFORMATION, CONTACT:** Hartnell College Nursing and Health Sciences: (831) 770-6146  
Email: [NHS@hartnell.edu](mailto:NHS@hartnell.edu)  
Hartnell College Counselor: (831) 755-6820

# RESPIRATORY CARE (AS.RCP)

## ASSOCIATE OF SCIENCE

**Program Goal:** To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).

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

- comprehend, apply, and evaluate information necessary to practice as a respiratory care practitioner (cognitive) as evidenced by their ability to
  - evaluate data to assess the appropriateness of prescribed respiratory care
  - participate in the development and modification of respiratory care plans in a variety of settings
  - provide patient, family, and community education
- perform the skills competently as a respiratory care practitioner (psychomotor) as evidenced by their ability to
  - apply problem-solving strategies in the patient care setting
  - perform respiratory therapeutic and diagnostic procedures interventions in a timely manner consistent with patient safety and infection control standards.
- practice professional attitudes and behavior (affective) as evidenced by their ability to
  - demonstrate ethical and professional behaviors
  - demonstrate effective oral and written communication skills
  - interact effectively with other members of the healthcare team
  - communicate effectively in diverse groups while respecting beliefs and values of all persons

### Required General Education Courses:

#### MUST BE COMPLETED PRIOR TO ACCEPTANCE INTO PROGRAM (22-23 units)

<input type="checkbox"/> BIO-5 – Human Anatomy	4.0
<input type="checkbox"/> BIO-6 – Introductory Physiology	3.0
<input type="checkbox"/> BIO-6L – Physiology Laboratory	2.0
<input type="checkbox"/> BIO-27 – Principles of Microbiology	4.0
<input type="checkbox"/> ENG-1A – College Composition and Reading	3.0
<input type="checkbox"/> MAT-12 – Number Systems	3.0
OR	
<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0
<input type="checkbox"/> PSY-2 – General Psychology	3.0

### Required Major Courses (12 units)

<input type="checkbox"/> ANT-2 – Introduction to Cultural Anthropology	3.0
<input type="checkbox"/> Ethnic Group Course _____ (see page 76)	3.0
<input type="checkbox"/> COM-1 – Introduction of Public Speaking	3.0
OR	
<input type="checkbox"/> COM-3 – Survey of Human Communication	3.0
<input type="checkbox"/> Lifelong Understanding and Self-Development	3.0

## CON'T OF RESPIRATORY CARE

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### Required Major Courses (After acceptance into the program) (44 units)

#### 1<sup>st</sup> SEMESTER – 10 units

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- |                          |   |     |
|--------------------------|---|-----|
| <input type="checkbox"/> | RCP-110 – Foundations for Success                       | 1.0 |
| <input type="checkbox"/> | RCP-50 – Respiratory Care Practitioner Responsibilities | 1.5 |
| <input type="checkbox"/> | RCP-51 – Pharmacology and Medication Administration     | 3.0 |
| <input type="checkbox"/> | RCP-52 – Cardiopulmonary Anatomy and Physiology         | 3.0 |
| <input type="checkbox"/> | RCP-53 – Foundational Skills                            | 1.0 |
| <input type="checkbox"/> | RCP-54 – Supervised Practice: Foundations               | 0.5 |

#### 2<sup>nd</sup> SEMESTER – 12.5 units

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- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | RCP-60 – Diagnostic Studies and Respiratory Care | 3.0 |
| <input type="checkbox"/> | RCP-61 – Respiratory Therapeutics                | 3.0 |
| <input type="checkbox"/> | RCP-62 – Cardiopulmonary Pathophysiology         | 2.0 |
| <input type="checkbox"/> | RCP-63 – Beginning Clinical Experience           | 4.0 |
| <input type="checkbox"/> | RCP-64 – Supervised Practice: Beginning          | 0.5 |

#### 3<sup>rd</sup> SEMESTER – 11.5 units

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- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | RCP-70 – Neonatal and Pediatric Respiratory Care | 2.0 |
| <input type="checkbox"/> | RCP-71 – Basic Mechanical Ventilation            | 3.0 |
| <input type="checkbox"/> | RCP-72 – Neurological and Traumatic Conditions   | 2.0 |
| <input type="checkbox"/> | RCP-73 – Intermediate Clinical Experience        | 4.0 |
| <input type="checkbox"/> | RCP-74 – Supervised Practice: Intermediate       | 0.5 |

#### 4<sup>th</sup> SEMESTER – 11 units

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- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | RCP-80 – Advanced Respiratory Care       | 1.5 |
| <input type="checkbox"/> | RCP-81 – Advanced Mechanical Ventilation | 3.0 |
| <input type="checkbox"/> | RCP-82 – Clinical Reasoning Seminar      | 2.0 |
| <input type="checkbox"/> | RCP-83 – Advanced Clinical Experiences   | 4.0 |
| <input type="checkbox"/> | RCP-84 – Supervised Practice: Advanced   | 0.5 |

#### Respiratory Care Success Courses: (recommended, not required)

---

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | RCP-225 – Success Strategies for 1 <sup>st</sup> Semester RCP Students | 0.5 |
| <input type="checkbox"/> | RCP-226 – Success Strategies for 2 <sup>nd</sup> Semester RCP Students | 0.5 |
| <input type="checkbox"/> | RCP-227 – Success Strategies for 3 <sup>rd</sup> Semester RCP Students | 0.5 |
| <input type="checkbox"/> | RCP-228 – Success Strategies for 4 <sup>th</sup> Semester RCP Students | 0.5 |

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**SUBTOTAL: 44 UNITS**

**TOTAL: 78 UNITS**

## SOCIAL JUSTICE

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### PROGRAMS

- **Associate in Arts for Transfer (A.A.-T)**



#### DESCRIPTION

Social Justice Studies Program will prepare students with lower-division coursework required at most universities for advancement to upper division coursework for the Bachelor's Degree with a major in Social Justice. This degree program is designed for those interested in seeking careers in a nonprofit advocacy environment or for students desiring transfer to a four-year Social Justice oriented degree program.

#### 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](http://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>

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Consultant
- Correctional Officer
- Social Justice Specialist
- Social Worker
- Victim Advocate

## SOCIAL JUSTICE (AAT.SJ)

### ASSOCIATE IN ARTS FOR TRANSFER

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

- demonstrate a deep knowledge of the history, causes, and contemporary manifestations of specific social justice issues related to social inequality.
- deconstruct institutional power residing in private enterprise, government, the media and/or the nonprofit sector.
- analyze how communities attempt to overcome problems associated with inequality, cultural stigma, prejudice, and discrimination.
- create and present analyses that effectively integrate theoretical and experiential knowledge of constituencies involved in social justice work.

#### Required Major Courses (9 units)

<input type="checkbox"/>	SJS-20 – Introduction to Social Justice	3.0
<input type="checkbox"/>	SJS-22 – Women’s Studies	3.0
<input type="checkbox"/>	ETH-1 – Introduction to Ethnic Studies	3.0
<input type="checkbox"/>	ETH-56 – Ethnic Studies Cinema - Silenced Voices	3.0

#### Major Electives (Complete 9 units)

<input type="checkbox"/>	ETH-1 – Introduction to Ethnic Studies	3.0
<input type="checkbox"/>	ETH-2 – Chicana/o/x Leadership	3.0
<input type="checkbox"/>	ETH-3 – Introduction to Chicax Studies	3.0
<input type="checkbox"/>	ETH-4 – Chicax Culture	3.0
<input type="checkbox"/>	ETH-5/POL-5 – Chicano Politics	3.0
<input type="checkbox"/>	ETH-6 – La Chicana	3.0
<input type="checkbox"/>	ETH-7 – Chicana/o/x Theatre	3.0
<input type="checkbox"/>	ETH-8 – Introduction to Asian American Studies	3.0
<input type="checkbox"/>	ETH-12 – Chicano Cinema	3.0
<input type="checkbox"/>	ETH-13 – Introduction to Native Americans in the Salinas Valley	3.0
<input type="checkbox"/>	ETH-21 – Introduction to African American Studies	3.0

**SUBTOTAL: 18 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.

## SOCIOLOGY

### PROGRAM

- **Associate in Arts for Transfer (A.A.-T)**



#### DESCRIPTION

Sociology is the scientific study of human behavior in society. It uses a variety of research and theoretical perspectives to analyze and explain human social behavior and social change. Sociology students examine a wide range of human interactions including marriage and family units, crime and deviance, culture and social change, group processes and interactions having to do with class, race and gender; diversity and globalization, social stratification and mobility and social movements. Program courses will help develop the student's ability to examine the broader connections between personal life, public issues and social structure. Sociology provides a valuable major for a diverse range of career paths including teaching, social work, probation officer, employment counseling, urban planning and others.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Advocacy
- Case Management
- City Planning
- Counseling
- Consumer Researcher
- Demographers
- Human Resources
- Human Services
- Information Sourcing
- Law Enforcement
- Management
- Market Research
- Mental Health Services
- Non-Profit
- Police Officer
- Policy Analysis
- Probation Officer
- Program Development
- Programming Administration
- Public Administration
- Public Relations
- Researchers
- Sales
- Social Work
- Teacher
- Teaching
- Urban Planner

#### 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

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

# SOCIOLOGY (AAT-SOC)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- describe, discuss, and apply the core concepts of sociology including: social structure; culture, social stratification and inequality; race, ethnicity, gender and intersectionality; and globalization.
- apply core concepts of sociology to their professional, personal and civic lives.
- research, evaluate, and incorporate scholarly sources in a research paper.
- evaluate and discuss how sociological theories explain particular aspects of society.

### Required Major Courses (10 units)

<input type="checkbox"/> SOC-1 – Introduction to Sociology	3.0
<input type="checkbox"/> SOC-5 – Introduction to Social Problems	3.0
<input type="checkbox"/> MAT-13 – Elementary Statistics	4.0

### Major Electives A Courses (Complete 6 units)

<input type="checkbox"/> ADJ-51 – Criminology	3.0
<input type="checkbox"/> PSY-6 – Social Psychology	3.0
<input type="checkbox"/> SOC-20 – Sociology of Gender and Society	3.0
<input type="checkbox"/> SOC-41 – Marriage and the Family	3.0
<input type="checkbox"/> SOC-42 – Sociology of Minority Relations	3.0

### Major Electives B Courses (Complete 3 units)

<input type="checkbox"/> SOC-15 – Sociology of Immigration & Identity in US	3.0
<input type="checkbox"/> SOC-30 – Sociology of Latina/o in US Society	3.0

**SUBTOTAL: 19 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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<sup>SM</sup>**  
*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.



## SPANISH

### PROGRAMS

- Associate in Arts for Transfer (A.A.-T)
- Associate of Arts (A.A.)



### DESCRIPTION

The Spanish degree program includes four semesters of the study of Spanish, one of the world's most influential languages and the fastest growing language in California. It provides students with the communication skills in understanding, speaking, reading, and writing, and prepares them to enter the workforce in many industries where knowledge of Spanish is valuable and imperative. Students will find a broad range of employment opportunities in educational, legal, and medical settings that include careers in interpretation, customer service, preschool education, childcare, health care, nutrition services, and in numerous areas of public safety. It is recommended that students intending to transfer to four-year institutions complete the Spanish AA-T degree instead.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Bilingual Educator
- Court Interpreter
- Foreign Correspondent
- Foreign Diplomat
- Importer/Exporter
- International Business
- International Consultant
- Interpreter/Translator
- Journalist
- Linguist
- Missionary
- National Security Agent
- Nonprofit Manager
- Social Worker
- Teacher
- Tour Organizer
- Travel Agent

### 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](http://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>

# SPANISH (AAT.SPA)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- converse and write in Spanish at the intermediate level with effective use of grammar, vocabulary, comprehensible pronunciation, and syntax on a range of topics such as personal and family lives, school or work, and current events.
- read and understand authentic texts in Spanish such as letters, essays, newspaper articles, poems, and/ or short stories.
- demonstrate knowledge and understanding of the linguistic, literary, and cultural contributions of the Spanish speaking world.

### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-1 – Elementary Spanish 1                       | 5.0 |
| <input type="checkbox"/> SPA-1S – Elementary Spanish 1 for Spanish Speakers | 5.0 |
| <input type="checkbox"/> SPA-1X – Elementary Spanish 1 for Chicano Students | 5.0 |

### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-2 – Elementary Spanish 2                       | 5.0 |
| <input type="checkbox"/> SPA-2S – Elementary Spanish 2 for Spanish Speakers | 5.0 |
| <input type="checkbox"/> SPA-2X – Elementary Spanish 2 for Chicano Students | 5.0 |

### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-3 – Intermediate Spanish 1                       | 5.0 |
| <input type="checkbox"/> SPA-3S – Intermediate Spanish 1 for Spanish Speakers | 5.0 |

### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-4 – Intermediate Spanish                         | 5.0 |
| <input type="checkbox"/> SPA-4S – Intermediate Spanish 2 for Spanish Speakers | 5.0 |

### Major Electives (Complete 3 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> ANT-20 – Mesoamerica: Cultures and Civilizations of Mexico and Central America | 3.0 |
| <input type="checkbox"/> ETH-4 – Chicanx Culture  | 3.0 |
| <input type="checkbox"/> HIS-6 – History of Mexico  | 3.0 |
| <input type="checkbox"/> HIS-49B – Chicano History  | 3.0 |

**SUBTOTAL: 23 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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.

Students placing out of Spanish 1, 1S, or 1X are not awarded units for that course; therefore the student will need to take additional units from the elective list to complete the requirements for this degree. Students will choose to take an additional 3 unit course from the Restricted Major Electives list.

## SPANISH (AA.SPA)

### ASSOCIATE OF ARTS

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

- converse and write in Spanish with effective use of grammar, vocabulary, comprehensible pronunciation, and syntax.
- read and discuss authentic texts in Spanish such as letters, essays, newspaper articles, poems, and/or short stories.
- describe and provide examples of the linguistic, literary, and cultural contributions of the Spanish speaking world.

#### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-1 – Elementary Spanish 1                       | 5.0 |
| <input type="checkbox"/> SPA-1S – Elementary Spanish 1 for Spanish Speakers | 5.0 |
| <input type="checkbox"/> SPA-1X – Elementary Spanish for Chicano Students   | 5.0 |

#### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-2 – Elementary Spanish 2                       | 5.0 |
| <input type="checkbox"/> SPA-2S – Elementary Spanish2 for Spanish Speakers  | 5.0 |
| <input type="checkbox"/> SPA-2X – Elementary Spanish 2 for Chicano Students | 5.0 |

#### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-3 – Intermediate Spanish 1                       | 5.0 |
| <input type="checkbox"/> SPA-3S – Intermediate Spanish 1 for Spanish Speakers | 5.0 |

#### Required Major Courses (Complete 5 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> SPA-4 – Intermediate Spanish 2                       | 5.0 |
| <input type="checkbox"/> SPA-4S – Intermediate Spanish 2 for Spanish Speakers | 5.0 |

#### Major Electives (Complete 6 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> ECE-2 – Child, Family, School & Community Relations | 3.0 |
| <input type="checkbox"/> ECE-53 – Teaching in a Diverse Society              | 3.0 |
| <input type="checkbox"/> ETH-1 – Introduction to Ethnic Studies              | 3.0 |
| <input type="checkbox"/> ETH-4 – Chicanx Culture                             | 3.0 |
| <input type="checkbox"/> MUS-5 – Ethnic Music in the United States           | 3.0 |
| <input type="checkbox"/> SOC-42 – Sociology of Minority Relations            | 3.0 |

**SUBTOTAL: 26 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76)

- |   |   |
|---|---|
| <input type="checkbox"/> English composition                              | <input type="checkbox"/> Oral communication and Critical thinking |
| <input type="checkbox"/> Mathematical Concepts and Quantitative Reasoning |   |
| <input type="checkbox"/> Arts and Humanities                              |   |
| <input type="checkbox"/> Social and Behavioral Sciences                   |   |
| <input type="checkbox"/> Physical and Biological Sciences                 |   |
| <input type="checkbox"/> Ethnic Studies                                   |   |
| <input type="checkbox"/> Lifelong Learning and Self Development           |   |

**SUBTOTAL: 21 UNITS**

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

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

**TOTAL: 60 UNITS**

## STUDIO ARTS

### PROGRAM

- Associate in Arts for Transfer (A.A.-T)



#### DESCRIPTION

**Art** is the study of communicating concepts and ideas visually. The Associate in Arts in Studio Arts for Transfer degree provides students with an introductory foundation in art principles and practices while providing a clearly articulated curricular track for students who wish to transfer to baccalaureate degree programs at a California State University (CSU) campus. This degree provides the lower division art courses required at many CSUs while exposing students to the core principles of the studio arts field. Selected courses will include study in art history and studio practice in the creation of both two- and three-dimensional works of art. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major.

#### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Art Buyer
- Art Critic
- Art Director
- Art Exhibition Coordinator
- Art Teacher
- Ceramic Artist
- Costume and Mask Designer
- Display Designer
- Gallery Owner
- Illustrator/Designer
- Impressionist
- Jewelry Designer
- Magazine Cover Artist
- Painter
- Set Designer
- Sculpture Artist
- Silkscreen Artist
- Sketch Artist

#### 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](http://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>

# STUDIO ARTS (AAT.SART)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- demonstrate a working knowledge of the core aesthetic principles of studio arts through visual problem solving in areas of two-dimensional and three-dimensional fine art;
- apply their understanding of studio arts to their professional, personal, and civic lives.

### Required Major Courses (15 units)

<input type="checkbox"/>	ART-1A – Art History Survey I	3.0
<input type="checkbox"/>	ART-1B – Art History Survey II	3.0
<input type="checkbox"/>	ART-3 – Drawing and Composition	3.0
<input type="checkbox"/>	ART-12A – Design	3.0
<input type="checkbox"/>	ART-13 – Three-Dimensional Design	3.0

### Major Electives (Complete 9 units)

<input type="checkbox"/>	ART-6A – Watercolors & Gouache	3.0
<input type="checkbox"/>	ART-15A – Ceramics	3.0
<input type="checkbox"/>	ART-70 – Intro to Graphic Design & Computer Graphics	3.0
<input type="checkbox"/>	ART-71 – Introduction to 2D Digital Illustration	3.0
<input type="checkbox"/>	ART-72 – Introduction to Digital Art	3.0
<input type="checkbox"/>	PHO-1 – Introduction to Photography	3.0

**AND**

	PHO-2 – Beginning Black and White Photography	3.0
--	---	-----

**SUBTOTAL: 24 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**CSU-GE (see page 78) 39 units**

**IGETC (see page 80) 37 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.

# THEATRE ARTS

## PROGRAMS

- **Associate in Arts for Transfer (A.A.-T)**



### DESCRIPTION

#### ASSOCIATE IN ARTS FOR TRANSFER (AA-T)

The Associate in Arts degree in Theatre Arts for Transfer provides a clearly articulated curricular track for students who wish to transfer to baccalaureate Theatre Arts degree programs at a California State University (CSU) campus. This degree provides the lower division theatre major courses required at many CSUs while exposing students to the core principles of the theatre arts field. For detailed requirements for individual four-year institutions, students should contact the transfer institution and meet with a counselor for specific transfer course requirements in their major. The Hartnell College Theatre Arts AA-T degree is unique in that a professional theatre company is in residence at Hartnell College: The Western Stage. The collaboration between Hartnell College and The Western Stage gives students the possibility of learning their craft within a professional context. Courses are designed for students interested in pursuing theatre as a major or as a career. Career options include actor, teacher or professor, director, agent, announcer, casting director, critic, or model. Careers with a technical emphasis include theatre technician, concert venue technician, theme park technician, stage manager, designer, art director, facilities manager, or technical director.

#### ASSOCIATE IN ARTS

This degree program is designed for those interested in seeking employment in a theatrical, and/or cinematic environment, or for students desiring to complete major preparation coursework for transfer to a four-year Theatre Arts and/or Film, Television, and Electronic Media oriented Degree Program. The Hartnell College Theatre Arts program is unique in that a professional theatre company is in residence at Hartnell College: The Western Stage. The collaboration between Hartnell College and The Western Stage gives students the possibility of learning their craft a professional context.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- |                            |                         |
|----------------------------|-------------------------|
| ▪ Actor                    | ▪ Designer              |
| ▪ Agent                    | ▪ Director              |
| ▪ Announcer                | ▪ Model                 |
| ▪ Art Director             | ▪ Stage Manager         |
| ▪ Casting Director         | ▪ Teacher/Professor     |
| ▪ Concert Venue Technician | ▪ Theatre Technician    |
| ▪ Critic                   | ▪ Theme Park Technician |

### 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](http://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>

# THEATRE ARTS (AAT.THA)

## ASSOCIATE IN ARTS FOR TRANSFER

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

- demonstrate proficiency in theatre, terminology and performance skills, its basic theories, history and techniques, culminating in a live performance on stage.
- conduct and apply analysis and research skills of dramatic texts and instructional materials.
- work effectively as an ensemble member in a fully produced production formulating alternative solutions to theatrical production situations.
- analyze, interpret, and evaluate their own and others' work in the theatre as a patron and participant.

### Required Major Courses (Complete 6 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> TAC-1 – Introduction to Theatre         | 3.0 |
| <b>OR</b>  |     |
| TAC-3 – History of Theatre                                       | 3.0 |
| <input type="checkbox"/> TAC-10 – Acting I – Acting for Everyone | 3.0 |

### Required Major Courses (Complete 3 units)

- |   |     |
|---|-----|
| <input type="checkbox"/> TAC-20 – Intro to Ensemble Play Production | 3.0 |
| TAC-21 – Intro to Modern Play Production                            | 3.0 |
| TAC-22 – Intro to Musical Theatre Production                        | 3.0 |
| TAC-24 – Intro to World Theatre Production                          | 3.0 |
| TAC-25 – Intro to Revival Play Production                           | 3.0 |
| <b>OR</b>   |     |
| <input type="checkbox"/> TAC-26 – Scenic Construction               | 3.0 |
| TAC-28 – Make-up/Hair Techniques for the Stage                      | 3.0 |
| TAC-29 – Stage Light and Sound                                      | 3.0 |
| TAC-40 – Stage Costuming Practicum                                  | 3.0 |

### Major Electives (Complete 9 units)

- |  |     |
|--|-----|
| <input type="checkbox"/> TAC-2 – Script Analysis                 | 3.0 |
| <input type="checkbox"/> TAC-11 – Acting II                      | 3.0 |
| <input type="checkbox"/> TAC-30 – Fundamentals of Theatre Design | 3.0 |

### If not used in Required Major Courses (3 units maximum from these courses)

- |   |     |
|---|-----|
| <input type="checkbox"/> TAC-20 – Intro to Ensemble Play Production | 3.0 |
| TAC-21 – Intro to Modern Play Production                            | 3.0 |
| TAC-22 – Intro to Musical Theatre Production                        | 3.0 |
| TAC-24 – Intro to World Theatre Production                          | 3.0 |
| TAC-25 – Intro to Revival Play Production                           | 3.0 |

### **OR**

- |   |     |
|---|-----|
| <input type="checkbox"/> TAC-26 – Scenic Construction | 3.0 |
| TAC-28 – Make-up/Hair Techniques for the Stage        | 3.0 |
| TAC-29 – Stage Light and Sound                        | 3.0 |
| TAC-40 – Stage Costuming Practicum                    | 3.0 |

**SUBTOTAL: 18 UNITS**

### General Education – Required Courses

Students must complete one of the following General Education Plans:

- |                             |                 |
|-----------------------------|-----------------|
| <b>CSU-GE</b> (see page 78) | <b>39 units</b> |
| <b>IGETC</b> (see page 80)  | <b>37 units</b> |

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.

# THEATRE ARTS AND CINEMA

## PROGRAMS

- Associate of Arts (A.A.)



### DESCRIPTION

#### ASSOCIATE IN ARTS

This degree program is designed for those interested in seeking employment in a theatrical, and/or cinematic environment, or for students desiring to complete major preparation coursework for transfer to a four-year Theatre Arts and/or Film, Television, and Electronic Media oriented Degree Program. The Hartnell College Theatre Arts program is unique in that a professional theatre company is in residence at Hartnell College: The Western Stage. The collaboration between Hartnell College and The Western Stage gives students the possibility of learning their craft within a professional context.

### 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](http://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>

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- |                            |                         |
|----------------------------|-------------------------|
| ▪ Actor                    | ▪ Designer              |
| ▪ Agent                    | ▪ Director              |
| ▪ Announcer                | ▪ Model                 |
| ▪ Art Director             | ▪ Stage Manager         |
| ▪ Casting Director         | ▪ Teacher/Professor     |
| ▪ Concert Venue Technician | ▪ Theatre Technician    |
| ▪ Critic                   | ▪ Theme Park Technician |



# THEATRE ARTS AND CINEMA (AA.TAC)

## ASSOCIATE OF ARTS

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

- demonstrate proficiency in theatre, and/or film, television, and electronic media terminology and performance skills, its basic theories, history and techniques, culminating in a media production or live performance on stage.
- conduct and apply analysis and research skills of dramatic texts and instructional materials.
- work effectively as an ensemble member in a fully produced production formulating alternative solutions to theatrical production situations.
- analyze, interpret, and evaluate their own and others' work in theatre & cinema as a patron and participant.

### Required Major Courses (Complete 15 units)

- |                          |   |     |
|--------------------------|---|-----|
| <input type="checkbox"/> | TAC-1 – Introduction to Theatre         | 3.0 |
| <b>OR</b>                |   |     |
|                          | TAC-50 – Introduction to Film           | 3.0 |
| <input type="checkbox"/> | TAC-3 – History of Theatre              | 3.0 |
| <input type="checkbox"/> | TAC-10 – Acting I                       | 3.0 |
| <input type="checkbox"/> | TAC-2 – Script Analysis                 | 3.0 |
| <b>OR</b>                |   |     |
|                          | TAC-53 – Playwriting and Screenwriting  | 3.0 |
| <input type="checkbox"/> | TAC-30 – Fundamentals of Theatre Design | 3.0 |

### Required Major Courses (Complete 3 units)

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | <b>Production:</b> TAC -17, 20, 21, 22, 24, 25, 53, 54 | 3.0 |
| <b>OR</b>                |  |     |
|                          | <b>Technical Design:</b> TAC-26, 27, 28, 29, 40, 91    | 3.0 |

## CHOOSE ONE AREA OF EMPHASIS BELOW

### THEATRE EMPHASIS

#### Major Electives (Complete 6 units –NOT TAKEN IN REQUIRED MAJOR COURSES)

- |                          |  |     |
|--------------------------|--|-----|
| <input type="checkbox"/> | TAC-2 – Script Analysis                            | 3.0 |
| <input type="checkbox"/> | TAC-7/ETH-7 – Chicano Theatre                      | 3.0 |
| <input type="checkbox"/> | TAC-11 – Acting II                                 | 3.0 |
| <input type="checkbox"/> | TAC-15 – Acting for the Camera                     | 3.0 |
| <input type="checkbox"/> | TAC-23 – Introduction to Theatre for Social Change | 3.0 |
| <input type="checkbox"/> | TAC-53 – Playwriting and Screenwriting             | 3.0 |
| <input type="checkbox"/> | TAC-55 – Directing                                 | 3.0 |
| <input type="checkbox"/> | TAC-92 – Children's Theatre                        | 3.0 |

### FILM, TELEVISION, ELECTRONIC MEDIA EMPHASIS

#### Major Electives (Complete 6 units –NOT TAKEN IN REQUIRED MAJOR COURSES)

- |                          |   |     |
|--------------------------|---|-----|
| <input type="checkbox"/> | TAC-50 – Introduction to Film: History up to the 1960's | 3.0 |
| <input type="checkbox"/> | TAC-51 – Beginning TV Studio Production                 | 3.0 |
| <input type="checkbox"/> | TAC-54 – Video Production Lab – Single Camera           | 3.0 |
| <input type="checkbox"/> | TAC-58 – Introduction Media Writing                     | 3.0 |

**SUBTOTAL: 24 UNITS**

*(Note: If you are planning to transfer, be sure to speak with a counselor to ensure you are taking all of the required transfer level courses.)*

### General Education – Required Courses

Students must complete one of the following General Education Plans:

HCCD GE (see page 76)

- |                          |  |                          |  |
|--------------------------|--|--------------------------|--|
| <input type="checkbox"/> | English composition                              | <input type="checkbox"/> | Oral communication and Critical thinking |
| <input type="checkbox"/> | Mathematical Concepts and Quantitative Reasoning |                          |  |
| <input type="checkbox"/> | Arts and Humanities                              |                          |  |
| <input type="checkbox"/> | Social and Behavioral Sciences                   |                          |  |
| <input type="checkbox"/> | Physical and Biological Sciences                 |                          |  |
| <input type="checkbox"/> | Ethnic Studies                                   |                          |  |
| <input type="checkbox"/> | Lifelong Learning and Self Development           |                          |  |

**SUBTOTAL: 21 UNITS**

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

■ Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.

**TOTAL: 60 UNITS**

## THEATRE PERFORMANCE (NCCT.TPER)

---

### PROGRAM

- **Certificate of Completion**



### DESCRIPTION

This noncredit certificate prepares students with basic technical, aesthetic, and collaborative skills to participate as a competent member of the theatre ensemble in production. Course offerings introduce the students to rehearsal and production concepts such as physical and vocal techniques, theatre history, aesthetics, and production roles, responsibilities, and techniques, and direct applications within a live theatrical production environment.

#### **PROGRAM GOALS AND OBJECTIVES:**

The Noncredit Theatre Performance Certificate of Completion will provide students with vocational training in a production environment, helping students develop professional competency in acting and theatrical production for professional, educational, community-based, and/or regional theatre environments, or for the related areas of film, television, general entertainment and/or hospitality. Working with resident professional theatre company, The Western Stage, students will have the opportunity to learn their craft within a professional context.

**Program Outcomes:** Upon completion of the Non-Credit Theatre Performance Certificate of Completion, students will:

- demonstrate proficiency in the acting techniques in scene work and memorization.
- conduct preliminary research for the character, period, and/or production history associated with the chosen ensemble play.
- demonstrate the organizational skills necessary to rehearse and perform within a fully-realized ensemble play.
- effectively collaborate as a contributing member of a production team.

#### **REQUIRED COURSES**

- TAC-326, Stage Scenic Construction - 112-126 hrs
- TAC-327, Scenic Painting, Properties and Technical Production Techniques - 112-126 hrs
- TAC-328, Makeup/Hair Techniques for the Stage 112-126 hrs
- TAC-329, Stage Lighting and Sound - 112-126 hrs
- TAC-340, Stage Costuming Practicum - 112-126 hrs

### FOR MORE INFORMATION

**CALL (831) 755-6916**

## THEATRE PRODUCTION (NCCT.TPRO)

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### PROGRAM

- **Certificate of Completion**



### DESCRIPTION

This noncredit certificate prepares students with basic technical, aesthetic, and collaborative skills to participate as a competent member of the theatre ensemble in production. Course offerings introduce the students to rehearsal and production concepts such as physical and vocal techniques, theatre history, aesthetics, and production roles, responsibilities, and techniques, and direct applications within a live theatrical production environment.

#### PROGRAM GOALS AND OBJECTIVES:

The Noncredit Theatre Production Certificate of Completion will provide students with vocational training in a production environment, helping students develop professional competency in acting and theatrical production for professional, educational, community-based, and/or regional theatre environments, or for the related areas of film, television, general entertainment and/or hospitality. Working with resident professional theatre company, The Western Stage, students will have the opportunity to learn their craft within a professional context.

**Program Outcomes:** Upon completion of the Non-Credit Theatre Production Certificate of Completion, students will:

- demonstrate proficiency in the acting techniques in scene work and memorization.
- conduct preliminary research for the character, period, and/or production history associated with the chosen ensemble play.
- demonstrate the organizational skills necessary to rehearse and perform within a fully-realized ensemble play.
- effectively collaborate as a contributing member of a production team.

#### REQUIRED COURSES

- TAC-320, Introduction to Ensemble Play Production – 112-126 hrs
- TAC-321, Introduction to Modern Play Production – 112-126 hrs
- TAC-322, Introduction to Musical Theatre Production – 112-126 hrs
- TAC-324, Introduction to World Theatre Production – 112-126 hrs
- TAC-325, Introduction to Revival Play Production – 112-126 hrs

### FOR MORE INFORMATION

CALL (831) 755-6916

# THEATRE PRODUCTION AND PERFORMANCE (NCCT.TPRPE)



## PROGRAM

- **Certificate of Completion**

### DESCRIPTION

This noncredit certificate prepares students with basic technical, aesthetic, and collaborative skills to participate as a competent member of the theatre ensemble in production. Course offerings introduce the students to rehearsal and production concepts such as physical and vocal techniques, theatre history, aesthetics, and production roles, responsibilities, and techniques, and direct applications within a live theatrical production environment.

#### PROGRAM GOALS AND OBJECTIVES:

The Noncredit Theatre Production and Theatre Performance Certificate of Completion will provide students with vocational training in a production environment, helping students develop professional competency in acting and theatrical production for professional, educational, community-based, and/or regional theatre environments, or for the related areas of film, television, general entertainment and/or hospitality. Working with resident professional theatre company, The Western Stage, students will have the opportunity to learn their craft within a professional context.

**Program Outcomes:** Upon completion of the the Noncredit Theatre Production and Theatre Performance Certificate of Completion, students will:

- demonstrate proficiency in the acting techniques in scene work and memorization.
- conduct preliminary research for the character, period, and/or production history associated with the chosen ensemble play.
- demonstrate the organizational skills necessary to rehearse and perform within a fully-realized ensemble play.
- effectively collaborate as a contributing member of a production team.

#### REQUIRED COURSES

- TAC-320, Introduction to Ensemble Play Production – 112-126 hrs
- TAC-321, Introduction to Modern Play Production – 112-126 hrs
- TAC-322, Introduction to Musical Theatre Production – 112-126 hrs
- TAC-324, Introduction to World Theatre Production – 112-126 hrs
- TAC-325, Introduction to Revival Play Production – 112-126 hrs
- TAC-326, Stage Scenic Construction - 112-126 hrs
- TAC-327, Scenic Painting, Properties and Technical Production Techniques - 112-126 hrs
- TAC-328, Makeup/Hair Techniques for the Stage - 112-126 hrs
- TAC-329, Stage Lighting and Sound - 112-126 hrs
- TAC-340, Stage Costuming Practicum - 112-126 hrs

### FOR MORE INFORMATION

CALL (831) 755-6916

## WELDING

### PROGRAMS

- Associate of Science (A.S.)
- Certificate of Achievement



### DESCRIPTION

The Welding Technology program provides students with entry- and advanced-level employment skills in welding and metalworking techniques that are relevant to the needs of local employers and industries.

The program provides training in a variety of welding methods including SMAW, GTAW, GMAW and FCAW. Advanced level courses in plate and pipe welding prepare students for American Welding Society welding certification testing. The program offers courses in sheet metal fabrication and welding fabrication that focus on print reading and metalworking skills. In addition, courses are offered in architectural/ornamental ironwork fabrication, as well as toolmaking and hardfacing techniques that are used in the construction and agriculture industries.

Job opportunities for students in this area include machine shop welder, autobody worker, sheet metal worker, structural and ironwork welder, maintenance welder, pipe welder, and agricultural welding and fabrication.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

### LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Aerospace
- Agriculture
- Automotive Manufacturer and Repair
- Chemical Processing
- Construction
- Cutter
- General Manufacturing
- Oil and Gas Extraction
- Plumbing and Pipe Welding
- Underwater Welding
- Welder

### 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>

## WELDING (AS.WLD)

---

### ASSOCIATE OF SCIENCE

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

- demonstrate the use of welding and metal cutting processes safely and correctly.
- perform welding procedures in two or more methods on steel test plates in two or more welding positions.
- interpret and analyze fabrication prints, develop parts and cutting lists, and select and calibrate welding and cutting methods to fabricate assigned projects.

#### Required Courses (28 units)

<input type="checkbox"/>	CMA-74 – Industrial Print Reading and Drawing	3.0
<input type="checkbox"/>	MFGT-110- Industrial Safety	2.0
<input type="checkbox"/>	WLD-150 – Introduction to Arc Welding	3.0
<input type="checkbox"/>	WLD-151 – Introduction to GTAW/TIG Welding	3.0
<input type="checkbox"/>	WLD-152 – Sheet Metal Fabrication	2.0
<input type="checkbox"/>	WLD-153 – Welding Fabrication	3.0
<input type="checkbox"/>	WLD-154 – Advanced Arc Welding	3.0
<input type="checkbox"/>	WLD-155 – Ornamental Ironwork	2.0
<input type="checkbox"/>	WLD-156 – Toolmaking	2.0
<input type="checkbox"/>	WLD-157 – Pipe Welding	3.0
<input type="checkbox"/>	WLD-158 – Hardfacing and Surfacing	2.0

#### Restricted Major Electives (Complete 9 units)

<input type="checkbox"/>	CMA-75 – Engineering Drawing/Solid Works	3.0
<input type="checkbox"/>	CMA-81 – Computer Aided Drafting and Design	3.0
<input type="checkbox"/>	MFGT-130 – Introduction to Metal Fabrication	3.0
<input type="checkbox"/>	MFGT-150 – Introduction to Industrial Electricity	2.0
<input type="checkbox"/>	WLD-99 – Cooperative Work Experience	1.0-4.0

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**SUBTOTAL: 37 UNITS**

#### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

**HCCD GE** (see page 76) *MAT-126 or higher*

- Natural Sciences    Social & Behavioral Sciences    Humanities  
 Ethnic Groups in the US    Language and Rationality

**SUBTOTAL: 21 UNITS**

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

- *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

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**TOTAL: 60 UNITS**

# WELDING (CT.WLD)

## CERTIFICATE OF ACHIEVEMENT

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

- demonstrate the use of welding and metal cutting processes safely and correctly.
- perform welding procedures in two or more methods on steel test plates in two or more welding positions.
- interpret and analyze fabrication prints, develop parts and cutting lists, and select and calibrate welding and cutting methods to fabricate assigned projects.

### Required Major Courses (24 units)

<input type="checkbox"/>	CMA-74 – Industrial Print Reading and Drawing	3.0
<input type="checkbox"/>	MFGT-110 –Industrial Safety	2.0
<input type="checkbox"/>	WLD-150 – Introduction to Arc Welding	3.0
<input type="checkbox"/>	WLD-151 – Introduction to GTAW/TIG Welding	3.0
<input type="checkbox"/>	WLD-153 – Welding Fabrication	3.0
<input type="checkbox"/>	WLD-154 – Advanced Arc Welding	3.0
<input type="checkbox"/>	WLD-155 – Ornamental Ironwork	2.0
<input type="checkbox"/>	WLD-156 – Toolmaking	2.0
<input type="checkbox"/>	WLD-157 – Pipe Welding	3.0

### Major Electives (Complete 6 units)

<input type="checkbox"/>	WLD-152 – Sheet Metal Fabrication	2.0
<input type="checkbox"/>	WLD-158 – Hardfacing and Surfacing	2.0
<input type="checkbox"/>	WLD-99 – Cooperative Work Experience	1.0-4.0

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**TOTAL: 30 UNITS**

### 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>