Individual department curriculum sheets for certificate and degree programs are available in the Counseling Center and at www.deanza.edu/counseling/degreecert.html. Division offices often have the information available as well.

Students transferring to other colleges should complete as many of that college’s requirements as possible. Articulation agreements between De Anza and California public four-year institutions are available on the Web at www.assist.org. Students should also contact a counselor or adviser for program planning from the catalog of the desired transfer institution and maintain regular contact prior to transfer.

Although care has been taken to ensure the accuracy of the information that follows, there may be unintended errors and changes or deletions without notification.

General Requirements

To Earn a Certificate or Degree
1. Complete the course requirements listed.
2. Meet the requirements for the corresponding level (Skills Certificate, Certificate of Achievement, Certificate of Achievement-Advanced, A.A./A.S. degree) as specified below.

Skills Certificate
Skills Certificates are issued by the individual departments and are not notated on official college transcripts. Contact the department directly for assistance and to apply for Skills Certificates.

Requirements:
A passing grade (“C” or better/“P”) in each required course
Note: Each course must be completed at De Anza College.

Certificates of Achievement and Achievement-Advanced
Certificates of Achievement and Achievement-Advanced are awarded by the college and notated on official transcripts. Visit the Counseling and Advising Center to apply for these and for academic planning assistance.

Certificate of Achievement Level Requirements
A minimum “C” grade in each major course.
Note: A maximum of six (6) quarter units may be transferred from other academic institutions.

Certificate of Achievement-Advanced Level Requirements
1. A minimum “C” grade in each major course.
2. Demonstrated proficiency in English and mathematics as evidenced by eligibility for EWRT 1A or ESL 5 and eligibility for MATH 114.

A.A./A.S. Degree Requirements
1. Completion of all General Education (GE) requirements (31-42 quarter units) for the A.A./A.S. degree. GE units must be completed with a minimum 2.0 GPA (“C” average).
2. Completion of all major requirements. Each major course must be completed with a minimum “C” grade.
   Major courses can also be used to satisfy GE requirements (except for Liberal Arts degrees).

A.A./A.S. Degree Requirements
1. Completion of all General Education (GE) requirements (31-42 quarter units) for the A.A./A.S. degree. GE units must be completed with a minimum 2.0 GPA (“C” average).
2. Completion of all major requirements. Each major course must be completed with a minimum “C” grade.
3. Completion of a minimum of 90 quarter units (GE and major units included). All De Anza courses must be completed with a minimum 2.0 GPA (“C” average). All De Anza courses combined with courses transferred from other academic institutions must be completed with a minimum 2.0 GPA (“C” average).

Associate Degree for Transfer Requirements (A.A.-T./A.S.-T.)
1. Completion of all major requirements. Each major course must be completed with a minimum “C” grade.
2. Certified completion of either the California State University (CSU) General Education Breadth pattern (CSU GE) or the Intersegmental General Education Transfer Curriculum (IGETC for CSU).
3. Completion of a minimum of 90 CSU-transferrable quarter units (De Anza courses numbered 1-99) with a minimum 2.0 GPA (“C” average).
4. Completion of all transferrable and non-transferrable De Anza courses (courses numbered 1-199) with a minimum 2.0 GPA (“C” average).
5. Completion of all De Anza courses combined with courses transferred from other academic institutions with a minimum 2.0 GPA (“C” average).

NOTE: Major courses for certificates and degrees must be completed with a letter grade unless a particular course is only offered on a pass/no-pass basis.
Accounting including Bookkeeping and Taxation

Certificate of Achievement

In this program Business students gain accounting knowledge needed for an entry-level accounting position.

Student Learning Outcomes - upon completion students will be able to:

- demonstrate knowledge of double-entry accounting within financial and cost accounting systems for various business organizations.
- prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
- identify and assess the theory and reporting differences between International Reporting Standards and US Generally Accepted Accounting Principles.
- evaluate events which require research in the professional literature and formulate an organized, concise approach to a solution.

1. Meet the requirements for this certificate level.
2. Complete the following.

   - ACCT 1A  Financial Accounting I 5
   - ACCT 1B  Financial Accounting II 5
   - ACCT 1C  Managerial Accounting 5
   - ACCT 88  Excel Spreadsheets for Accounting 2

   Complete one (1) course from:
   - ACCT 87AH  Computerized Accounting Programs I (Peachtree - Windows) (2)
   - ACCT 87AI  Computerized Accounting Programs I (Quickbooks) (2)
   - ACCT 87AJ  Computerized Accounting Programs I (Great Plains) (2)

   Complete a minimum of seven (7) units from the following: 7
   - ACCT 51A  Intermediate Accounting (5)
   - ACCT 51B  Intermediate Accounting (5)
   - ACCT 64  Payroll and Business Tax Accounting (3)
   - ACCT 66  Cost Accounting (5)
   - ACCT 67A  Federal Income Tax (4)
   - ACCT 75  Accounting for Government and Nonprofit Entities (5)
   - ACCT 86  Computer Accounting Systems (5)
   - ACCT 105  Basic Financial Accounting Procedures (1)

   Total Units Required 26

   Recommended
   - BUS 10  Introduction to Business (5)

Accounting: Practice Emphasis

Certificate of Achievement-Advanced

In this program Business students gain the skills needed for a professional job in Accounting or related positions such as analyst or staff accountant.

Student Learning Outcomes - upon completion students will be able to:

- demonstrate knowledge of double entry accounting within financial and cost accounting systems for various business organizations.
- prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
- identify and assess the theory and reporting differences between International Reporting Standards and US Generally Accepted Accounting Principles.
- evaluate events which require research in the professional literature and formulate an organized, concise approach to a solution.

1. Meet the requirements for this certificate level.
2. Complete the following.

   - ACCT 1A  Financial Accounting I 5
   - ACCT 1B  Financial Accounting II 5
   - ACCT 1C  Managerial Accounting 5
   - ACCT 51A  Intermediate Accounting 5
   - ACCT 51B  Intermediate Accounting 5
   - ACCT 88  Excel Spreadsheets for Accounting 2

   Complete one (1) course from:
   - ACCT 87AH  Computerized Accounting Programs I (Peachtree - Windows) (2)
   - ACCT 87AI  Computerized Accounting Programs I (Quickbooks) (2)
   - ACCT 87AJ  Computerized Accounting Programs I (Great Plains) (2)

   Complete a minimum of 16 units from the following: 16
   - ACCT 52  Advanced Accounting (5)
   - ACCT 58  Auditing (5)
   - ACCT 64  Payroll and Business Tax Accounting (3)
   - ACCT 66  Cost Accounting (5)
   - ACCT 67A  Federal Income Tax (4)
   - ACCT 67B  Advanced Individual Tax: CA Emphasis (4)
   - ACCT 68  Advanced Tax Accounting (4)
   - ACCT 73  Fraud Detection and Deterrence (5)
   - ACCT 75  Accounting for Government and Nonprofit Entities (5)
   - ACCT 86  Computer Accounting Systems (5)
   - ACCT 105  Basic Financial Accounting Procedures (1)
   - BUS 10  Introduction to Business (5)
   - BUS 18  Business Law I (5)
   - BUS 69  Investment Fundamentals (4)

   Total Units Required 45

Accounting: Practice Emphasis

A.A. Degree

This program prepares Business students for transfer to a four-year institution as Accounting majors. In it students gain the skills needed for a professional job in Accounting or related field such as analyst or staff accountant.

Student Learning Outcomes - upon completion students will be able to:

- demonstrate knowledge of double entry accounting within financial and cost accounting systems for various business organizations.
- prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
• identify and assess the theory and reporting differences between International Reporting Standards and US Generally Accepted Accounting Principles.
• evaluate events which require research in the professional literature and formulate an organized, concise approach to a solution.

Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the Cert. of Achievement-Advanced 45 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ......................... 90 units

Accounting: Taxation Emphasis
Certificate of Achievement-Advanced
This program prepares Business students with the skills needed to work in the professional tax field.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate knowledge of double-entry accounting within financial and cost accounting systems for various business organizations.
• prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
• demonstrate a knowledge of payroll and income tax laws through recognition and analysis of tax issues and preparation of various federal, state and regulatory reports.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 1B</td>
<td>Financial Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 1C</td>
<td>Managerial Accounting</td>
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</tr>
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<td>Advanced Tax Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 88</td>
<td>Excel Spreadsheets for Accounting</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete one (1) course from:

<table>
<thead>
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 87AH</td>
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<td>ACCT 87AI</td>
<td>Computerized Accounting Programs I (Quickbooks)</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 87AJ</td>
<td>Computerized Accounting Programs I (Great Plains)</td>
<td>2</td>
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</tbody>
</table>

Complete a minimum of 11 units from the following:

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>ACCT 51A</td>
<td>Intermediate Accounting</td>
<td>6</td>
</tr>
<tr>
<td>ACCT 51B</td>
<td>Intermediate Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 52</td>
<td>Advanced Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 58</td>
<td>Auditing</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 66</td>
<td>Cost Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 73</td>
<td>Fraud Detection and Deterrence</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 75</td>
<td>Accounting for Government and Nonprofit Entities</td>
<td>5</td>
</tr>
</tbody>
</table>

ACCT 86 Computer Accounting Systems (5)
ACCT 105 Basic Financial Accounting Procedures (1)
BUS 10 Introduction to Business (5)
BUS 18 Business Law I (5)
BUS 69 Investment Fundamentals (4)
REST 50 Real Estate Principles (4)
Total Units Required ......................... 45

Recommended
BUS 10 Introduction to Business (5)

Accounting: Taxation Emphasis
A.A. Degree
This program prepares Business students to transfer to a four-year institution as an Accounting major with a taxation emphasis. In it students gain the skills needed in conjunction with a four-year degree for a professional job in the tax field.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate a knowledge of double entry accounting within financial and cost accounting systems for various business organizations.
• prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
• identify and assess the theory and reporting differences between International Reporting Standards and US Generally Accepted Accounting Principles.
• evaluate events which require research in the professional literature and formulate an organized, concise approach to a solution.

Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the Cert. of Achievement-Advanced 45 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ......................... 90 units

Bookkeeping
Certificate of Achievement
This program prepares students for an entry-level position as an accounting technician or accounting clerk.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate a knowledge of double entry accounting within financial and cost accounting systems for various business organizations.
• prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
• apply fundamental accounting concepts to various computerized software programs.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
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<td>Fraud Detection and Deterrence</td>
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<td>ACCT 75</td>
<td>Accounting for Government and Nonprofit Entities</td>
<td>5</td>
</tr>
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</table>
ACCT 1A  Financial Accounting I  5
ACCT 1B  Financial Accounting II  5
ACCT 64  Payroll and Business Tax Accounting  3
ACCT 86  Computer Accounting Systems  5
ACCT 88  Excel Spreadsheets for Accounting  2
ACCT 105  Basic Financial Accounting Procedures  1

Complete one (1) course from:  2
ACCT 87AH  Computerized Accounting Programs I (Peachtree - Windows) (2)
ACCT 87AI  Computerized Accounting Programs I (Quickbooks) (2)
ACCT 87AJ  Computerized Accounting Programs I (Great Plains) (2)

Total Units Required .................................. 23

Recommended
BUS 10  Introduction to Business (5)

**Tax Practitioner**

**Certificate of Achievement-Advanced**

This program prepares students to work in the professional tax field.

**Student Learning Outcomes - upon completion students will be able to:**
- demonstrate a knowledge of double entry accounting within financial and cost accounting systems for various business organizations.
- prepare financial statements and reports and analyze these statements to evaluate the financial structure of a firm and describe fundamental business concepts, while identifying ethical issues in accounting.
- demonstrate knowledge of payroll and income tax laws through recognition and analysis of tax issues and preparation of various federal, state and regulatory reports.

1. Meet the requirements for this certificate level.
2. Complete the following.

ACCT 1A  Financial Accounting I  5
ACCT 1B  Financial Accounting II  5
ACCT 64  Payroll and Business Tax Accounting  3
ACCT 86  Computer Accounting Systems  5
ACCT 88  Excel Spreadsheets for Accounting  2
ACCT 105  Basic Financial Accounting Procedures  1

Complete one (1) course from:
ACCT 87AH  Computerized Accounting Programs I (Peachtree - Windows) (2)
ACCT 87AI  Computerized Accounting Programs I (Quickbooks) (2)
ACCT 87AJ  Computerized Accounting Programs I (Great Plains) (2)

Total Units Required .................................. 23

Recommended
BUS 10  Introduction to Business (5)

**Administration of Justice**

**Corrections/Probation**

**A.A. Degree**

The Associate in Arts degree in Corrections/Probation provides the foundational education required for an individual's career entry into the criminal justice field, specifically correctional operations and probation/parole case investigations. The courses range from concepts of criminal law, evidence, investigation and reporting to criminology, aspects of social change, and corrections investigations.

**Student Learning Outcomes - upon completion, students will be able to:**
- identify and discuss the legal and sociological approaches to correctional theories and practices.
- analyze the current correctional system and alternative sentencing solutions.
- analyze and evaluate the current theories and concepts that attribute social deviations to juvenile delinquency.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

ADMJ 1  Introduction to Administration of Justice  4
ADMJ 50  Crime, Correction and Society  4
ADMJ 54  Youth and the Law  4
ADMJ 56  Practical Writing for Administration of Justice  4
ADMJ 73  Crime and Criminology  4
ADMJ 74A  Interviewing, Interrogation and Crisis Intervention  4
ADMJ 75  Principles and Procedures of the Justice System  4
ADMJ 78  Correctional Investigation  4

Complete four (4) courses from the following:  14-16
ADMJ 3  Concepts of Criminal Law (4)
ADMJ 11  Federal Courts and Constitutional Law (4)
ADMJ 25  Law and Social Change (4)
ADMJ 29  Cultural Pluralism and American Law and Justice (4)
ADMJ 51  Women in Crime (4)
ADMJ 55  Alcohol, Narcotics and Drug Abuse (4)
ADMJ 62  Sexual Assault: Police and Community Response (4)

Complete a minimum of 16 units from the following:  16
ADMJ 64 series  ADMJ 64, 64X, 64Y, 64Z

ADMJ 90A  Legal Aspects of Evidence (4)
ADMJ 90B  Administration of Justice Internship (1-4)

**Major Corrections/Probation  46-48 units**

**GE**

**General Education (31-42 units)**
Electives

Elective courses required when major units plus GE units total is less than 90

Total Units Required ..................................90

Recommended
ADMJ 5, 53; HIST 17A, 17B; P E 28A; PSYC 1, 4
SOC 1; Spanish (any level)

Law Enforcement

A.A. Degree

The Associate in Arts degree in Law Enforcement provides the foundational education required for an individual's career pathway into the criminal justice field with an emphasis on the administration of justice. The courses range from the concepts of criminal law, evidence, investigation and reporting to community relations and criminology.

Student Learning Outcomes - upon completion, students will be able to:
• identify the responsibilities of each component of the criminal justice system.
• analyze the issues and theories of ethical standards and unethical conduct that are unique to the criminal justice field.
• construct a professional report of a crime utilizing report criteria.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.
ADMJ 1 Introduction to Administration of Justice 4
ADMJ 3 Concepts of Criminal Law 4
ADMJ 5 Community Relations 4
ADMJ 56 Practical Writing for Administration of Justice 4
ADMJ 61 Criminal Investigation 4
ADMJ 75 Principles and Procedures of the Justice System 4
ADMJ 90A Legal Aspects of Evidence 4

Complete four (4) courses from the following: 14-17
ADMJ 11 Federal Courts and Constitutional Law (4)
ADMJ 25 Law and Social Change (4)
ADMJ 29 Cultural Pluralism and American Law and Justice (4)
ADMJ 50 Crime, Correction and Society (4)
ADMJ 53 Criminal Law II (5)
ADMJ 54 Youth and the Law (4)
ADMJ 55 Alcohol, Narcotics and Drug Abuse (4)
ADMJ 60 Patrol Procedures (4)
ADMJ 62 Sexual Assault: Police and Community Response (4)
ADMJ 64 series ADMJ 64, 64X, 64Y, 64Z Administration of Justice Internship (1-4)
ADMJ 73 Crime and Criminology (4)
ADMJ 74A Interviewing, Interrogation and Crisis Intervention (4)

Major Law Enforcement 42-45 units

GE

General Education (31-42 units)

Electives

Elective courses required when major units plus GE units total is less than 90

Total Units Required ..................................90 units

Private Security

Certificate of Achievement-Advanced

The Certificate of Achievement-Advanced in Private Security provides a compressed, minimum foundational education required for an individual's career pathway into the private security field. The emphasis is on courses needed to apply for entry-level positions. The courses offer exposure to patrol and justice procedures.

Student Learning Outcomes - upon completion, students will be able to:
• identify the responsibilities of each component of the criminal justice system.
• identify and analyze ethical standards and unethical conduct that are unique to the criminal justice profession.
• construct a professional report of a crime utilizing report criteria.

1. Meet the requirements for this certificate level.
2. Complete the following.
ADMJ 1 Introduction to Administration of Justice 4
ADMJ 60 Patrol Procedures 4
ADMJ 75 Principles and Procedures of the Justice System 4

Complete a minimum of 25 units from the following: 25
ADMJ 3 Concepts of Criminal Law (4)
ADMJ 11 Federal Courts and Constitutional Law (4)
ADMJ 29 Cultural Pluralism and American Law and Justice (4)
ADMJ 50 Crime, Correction and Society (4)
ADMJ 53 Criminal Law II (5)
ADMJ 54 Youth and the Law (4)
ADMJ 55 Alcohol, Narcotics and Drug Abuse (4)
ADMJ 60 Patrol Procedures (4)
ADMJ 62 Sexual Assault: Police and Community Response (4)
ADMJ 64 series ADMJ 64, 64X, 64Y, 64Z Administration of Justice Internship (1-4)
ADMJ 90A Legal Aspects of Evidence (4)

Total Units Required ..................................37

Private Security

A.A. Degree

The Associate in Arts degree in Private Security provides the foundational education required for an individual's career pathway into the private security field. The courses range from the concepts of criminal law, evidence, investigations and reporting to patrol procedures and criminology.

Student Learning Outcomes - upon completion, students will be able to:
• identify the components of the criminal justice system and describe how each is fundamental to criminology procedures.
• identify the elements of a crime based on a factual situation.
• construct a professional report of a crime utilizing report criteria.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.
   ADMJ 1 Introduction to Administration of Justice 4
   ADMJ 3 Concepts of Criminal Law 4
   ADMJ 60 Patrol Procedures 4
   ADMJ 75 Principles and Procedures of the Justice System 4

Complete a minimum of 22 units from the following: 22
   ADMJ 11 Federal Courts and Constitutional Law (4)
   ADMJ 29 Cultural Pluralism and American Law and Justice (4)
   ADMJ 50 Crime, Correction and Society (4)
   ADMJ 53 Criminal Law II (5)
   ADMJ 54 Youth and the Law (4)
   ADMJ 55 Alcohol, Narcotics and Drug Abuse (4)
   ADMJ 61 Criminal Investigation (4)
   ADMJ 64 series ADMJ 64X, 64Y, 64Z Administration of Justice Internship (2-4)
   ADMJ 73 Crime and Criminology (4)
   ADMJ 74A Interviewing, Interrogation and Crisis Intervention (4)
   ADMJ 90A Legal Aspects of Evidence (4)

Start 64 series ADMJ 64X, 64Y, 64Z Administration of Justice Internship (2-4)

Major Private Security 38 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required ......................... 90 units

Art

Art History
Certificate of Achievement
(Pending state approval. Check with department for status.)

Completion of the Art History Certificate of Achievement provides students with a basic understanding of the discipline of Art History, emphasizing visual literacy and research skills necessary for critical inquiry and analysis of art works in a global context.

Student Learning Outcomes - upon completion students will be able to:
• analyze artworks on the basis of social, cultural, political, economic and/or ethnic contexts and issues relevant to women’s and gender studies.
• demonstrate critical thinking and visual literacy skills through oral and written communication, including those used to analyze, evaluate and synthesize primary and secondary sources.
• analyze artistic traditions through a cross-cultural perspective and in a global context.
• apply technical processes of studio art in written assignments in the field of Art History.

Certificate of Achievement-Advanced
A.A. Degree

Completion of the Art History Certificate of Achievement-Advanced/degree provides students with a broad overview of the discipline of Art History from a global perspective. The program emphasizes visual literacy and research skills necessary for critical inquiry and analysis of art works, as well as knowledge of the technical processes of studio art relevant to the field of Art History.

Student Learning Outcomes - upon completion students will be able to:
• analyze artworks on the basis of social, cultural, political, economic and/or ethnic contexts and issues relevant to women’s and gender studies.
• demonstrate critical thinking and visual literacy skills through oral and written communication, including those used to analyze, evaluate and synthesize primary and secondary sources.
• analyze artistic traditions through a cross-cultural perspective and in a global context.
• apply technical processes of studio art in written assignments in the field of Art History.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the Certificate of Achievement course requirements.
3. Complete the following.

Complete these two (2) courses:
ARTS 1B Architecture Past and Present 4
ARTS 3TD Public Places, Private Spaces - American Art 4
Complete one (1) course from the following Art series that was not previously completed for the Art History Cert. of Achievement:

- **ARTS 2A** History of Art (Europe from Prehistory through Early Christianity) (4)
- **ARTS 2B** History of Art (Europe During Middle Ages/ Renaissance) (4)
- **ARTS 2C** History of Art (Europe from the Baroque Period through Impressionism) (4)
- **ARTS 2D** History of Art (Europe and the United States/ Post-Impressionism) (4)
- **ARTS 2F** History of Art (Multicultural Arts in the U.S.) (4)
- **ARTS 2G** Arts of Asia (4)
- **ARTS 2H** History of Art: Native Arts of Mesoamerica and South America (4)
- **ARTS 2J** History of Art: Indigenous Arts of the World (4)
- **ARTS 2K** History of Art: Visual Arts of Islam (4)
- **ARTS 2L** History of Art: Visual Arts of Africa (4)

Complete four (4) courses from the courses listed below that were not previously selected to complete the requirements for the Art History Certificate of Achievement: 12

- **ARTS 4B** Intermediate Drawing (3)
- **ARTS 8** Two-Dimensional Design (3)
- **ARTS 10A** Three-Dimensional Design (3)
- **ARTS 12** Design and Color (3)
- **ARTS 15A** Introduction to Acrylic Painting (3)
- **ARTS 15B** Intermediate Acrylic Painting (3)
- **ARTS 16A** Oil Painting I (3)
- **ARTS 16B** Oil Painting II (3)
- **ARTS 18A** Ceramics (3)
- **ARTS 53A** Introduction to Visual Technology (3)
- **ARTS 56** Computer Graphic Design/ Electronic Publishing (3)

**Total Units Required** ......................... 50

**A.A. Degree**

Meet the AA/AS degree requirements.

**Major**

Complete the course requirements for the Cert. of Achievement and the Cert. of Achievement-Advanced 50 units

**GE**

General Education (31-42 units)

**Electives**

Elective courses required when major units plus GE units total is less than 90

**Total Units Required** ......................... 90

**Museum Studies Skills Certificate**

Skills Certificates are issued by the individual departments and are not notated on official college transcripts. Please contact the department directly for assistance and to apply for Skills Certificates.

This certificate provides a foundation-level art and museum studies education. The Museum Studies courses emphasize the skills and knowledge necessary for entry-level employment in the museum/gallery field. A required internship provides practical experience, along with courses that include all aspects of design, installation and viewing of art exhibits in a museum/gallery environment.

**Student Learning Outcomes - upon completion students will be able to:**

- compare and contrast gallery/museum art exhibits in terms of history, culture and aesthetics.
- demonstrate a working knowledge of gallery design, processes and procedures.
- apply internship experience skills to art gallery/museum work environments.

1. Meet the requirements for this certificate level.
2. Complete the following.

- **ARTS 70** Viewing Bay Area Art Museums and Galleries 1
- **ARTS 71** Gallery Exhibition Design 3
- **ARTS 72** Internship in Art 1
- **ARTS 1A** Introduction to the Visual Arts 4
- **ARTS 4A** Beginning Drawing 3
- **ARTS 8** Two-Dimensional Design 3
- **ARTS 10A** Three-Dimensional Design 3

**Total Units Required** ......................... 18

**Ceramics Certificate of Achievement**

(Pending state approval. Check with the department for the status.)

This certificate provides foundation-level art and fundamental ceramics instruction. The ceramic courses emphasize hands-on experience and familiarize students with basic ceramic construction and design skills.

**Student Learning Outcomes - upon completion, students will be able to:**

- explore and develop their ideas by drawing and conceptualizing their work.
- demonstrate construction techniques in hand-building and wheel throwing.
- demonstrate competency in glaze application and firing.

1. Meet the requirements for this certificate level. (Page 48)
2. Complete the following.

- **ARTS 4A** Beginning Drawing 3
- **ARTS 8** Two-Dimensional Design 3
- **ARTS 10A** Three-Dimensional Design 3
- **ARTS 18A** Ceramics 3
- **ARTS 18B** Ceramics (Wheel Throwing) 3
- **ARTS 18C** Ceramics (Intermediate Wheel Throwing) 3
- **ARTS 18D** Ceramics (Hand Building) 3
- **ARTS 18E** Ceramics (Advanced Wheel Throwing) 3
- **ARTS 20** Ceramics Individual Lab 2

**Total Units Required** ......................... 26
Student Learning Outcomes - upon completion, students will be able to:

• demonstrate competency in hand and wheel forming techniques.
• develop expertise in clay selection for different types of expression and surface embellishment.
• demonstrate competency in advanced technical skills associated with firing techniques.
• demonstrate loading and firing kilns for different temperature aesthetics and function.

1. Meet the requirements for this certificate level.
2. Complete the Certificate of Achievement course requirements.
3. Complete the following.

Complete a minimum of 12 units from the following:

ARTS 19H Raku (Ceramics) (3)
ARTS 19I Ceramics Sculpture (3)
ARTS 19J Ceramics Techniques (3)
ARTS 19K Ceramics Decoration (3)
ARTS 19M Low Fire Ceramics (3)
ARTS 19N Porcelain Ceramics (3)

Total Units Required ................................ 38

Ceramics

A.A. Degree
This degree provides foundation-level art and fundamental ceramics instruction. In the ceramic courses students gain the experience necessary for entry-level positions and learn intermediate-level skills needed for ceramics study at the university.

Student Learning Outcomes - upon completion, students will be able to:

• demonstrate competency in hand and wheel forming techniques.
• develop expertise in clay selection for different types of expression and surface embellishment.
• demonstrate competency in advanced technical skills associated with firing techniques.
• demonstrate loading and firing kilns for different temperature aesthetics and function.

Meet the A.A./A.S. degree requirements.

Major Complete the course requirements for the Cert. of Achievement and the Cert. of Achievement-Advanced 38 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required ....................................90

Painting

Certificate of Achievement
Courses within the Certificate of Achievement in Painting will train students in basic drawing skills using a variety of techniques. Students are also introduced to the computer as an effective and important mode of communication used by artists and designers. Critical thinking skills towards understanding of the history of paintings from a multicultural perspective of several time periods are also an important component of the students' training.

Student Learning Outcomes - upon completion, students will be able to:

• create drawings using a variety of techniques with traditional media such as charcoal, graphite, and ink.
• demonstrate basic painting techniques with either acrylic or oil media.
• utilize critical thinking skills to evaluate works of art for cultural and historical influences.
• demonstrate a basic understanding of the creative process, from idea generation through the preliminary/first draft phase to final product.

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete one (1) course from:

ARTS 2D History of Art (Post-Impressionism/Pres.) (4)
ARTS 3TE Today's Art Scene (4)

Complete the following:

ARTS 4A Beginning Drawing 3
ARTS 4B Intermediate Drawing 3
ARTS 12 Design and Color 3

Complete one (1) course from the following:

ARTS 4D Representational Drawing (3)
ARTS 8 Two-Dimensional Design (3)
ARTS 14A Watercolor Painting I (3)
ARTS 53A Introduction to Visual Technology (3)

Complete one (1) of the following sequences:

ARTS 15A Acrylic Painting I (3)
ARTS 15B Acrylic Painting II (3)
ARTS 15C Acrylic Painting III (3)
or
ARTS 16A Oil Painting I (3)
ARTS 16B Oil Painting II (3)
ARTS 16C Oil Painting III (3)

Total Units Required ....................................25

Painting

Certificate of Achievement-Advanced
The Certificate of Achievement-Advanced in Painting provides a foundation in the basics of painting, including drawing, using a variety of traditional media techniques. Students are trained in basic painting techniques with either acrylic or oil media and develop skills to evaluate works of art for cultural and historical influences while engaging in the creative process. This program prepares students with the experience necessary for entry-level positions in the painting field as well as the intermediate-level skills needed for study at the university.

Student Learning Outcomes - upon completion, students will be able to:

• reproduce drawings of the human figure using a variety of techniques with materials such as charcoal, graphite, ink and conte crayon.
• demonstrate awareness of the computer as an effective and important mode of communication used by artists and designers today.
• utilize critical thinking skills in their understanding of the history of paintings from a multicultural perspective spanning several time periods.

1. Meet the requirements for this certificate level.
2. Complete the Certificate of Achievement course requirements.  25
3. Complete the following.

ARTS 4C  Life Drawing  3
ARTS 53B  Introduction to Visual Technology  3

Complete the sequence from the list below that was not previously selected for the Painting Certificate of Achievement:

ARTS 15A  Acrylic Painting I (3)
ARTS 15B  Acrylic Painting II (3)
ARTS 15C  Acrylic Painting III (3)
or
ARTS 16A  Oil Painting I (3)
ARTS 16B  Oil Painting II (3)
ARTS 16C  Oil Painting III (3)

Total Units Required .................................. 40

Painting

A.A. Degree
This degree provides a comprehensive foundation in the areas of design, color theory, multiple painting processes, and professional software/hardware used by artists and designers. Students gain the skills and experience necessary to demonstrate a complete understanding of aesthetics, techniques and philosophy in the creative process.

Student Learning Outcomes - upon completion, students will be able to:
• critically analyze and assess diverse historical and contemporary works of art, architecture, and design.
• create art that engages and builds on historical and contemporary practices, theories, and materials.
• translate concepts and visual experience into images and tactile forms.
• present finished artwork for peer, professional or academic review.
• evaluate and critique artwork and receive criticism from others.
• express artistic concepts and intents in written and oral formats.

Meet the A.A./A.S. degree requirements.
Major
Complete the course requirements for the Cert. of Achievement and the Cert. of Achievement-Advanced  40 units
GE
General Education (31-42 units)
Electives
Elective courses required when major units plus GE units total is less than 90

Total Units Required .................................. 90

Sculpture

Certificate of Achievement
The certificate of Achievement in Sculpture provides a comprehensive foundation in studio art in the discipline of sculpture at an intermediate level.

Student Learning Outcomes - upon completion, students will be able to:
• explore and develop ideas by drawing and creating work that incorporates concepts and techniques introduced in the courses.
• demonstrate intermediate critical thinking and problem solving skills during each phase of the sculpture making process.
• use tools and equipment properly and safely during the sculpture making process, including Oxy-Acetylene and MIG welding equipment and basic electric and hand tools.

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete one (1) course from:

ARTS 2D  History of Art (Post-Impressionism/Pres.) (4)
ARTS 3TE  Today’s Art Scene (4)

Complete the following:

ARTS 4A  Beginning Drawing  3
ARTS 4B  Intermediate Drawing  3
ARTS 8  Two-Dimensional Design  3
ARTS 10A  Three-Dimensional Design  3
ARTS 37A  Sculpture  3
ARTS 37B  Intermediate Sculpture  3

Total Units Required .................................. 22

Sculpture

Certificate of Achievement-Advanced
This certificate provides a comprehensive foundation in the discipline of studio art for sculpture at an advanced level.

Student Learning Outcomes - upon completion, students will be able to:
• explore and develop individual ideas by drawing and creating original works of art while incorporating advanced sculpture techniques.
• create a body of work or develop a portfolio which is reflective of their coursework in preparation for further studies.
• demonstrate advanced critical thinking and problem solving skills during each phase of the sculpture making process.
• use specific tools expertly in working with a variety of sculpture materials and techniques.

1. Meet the requirements for this certificate level.
2. Complete the Certificate of Achievement course requirements.  22
3. Complete the following.

ARTS 10B  Intermediate Three-Dimensional Design  3
ARTS 37C  Advanced Sculpture  3
ARTS 58A  Furniture Design  3
ARTS 58B  Intermediate Furniture Design  3
ARTS 58C  Advanced Furniture Design  3

Total Units Required .................................. 37
Sculpture
A.A. Degree
This degree offers a foundation in lower division courses enabling students to pursue a B.A. or B.F.A. in sculpture or design at a four-year institution. The degree prepares students to transition successfully into a university environment. Their acquired knowledge may be transferred into areas such as teaching, studio art production, product design, museum work, architectural design and engineering.

Student Learning Outcomes - upon completion, students will be able to:
• explore and develop individual ideas by drawing and creating original works of art while incorporating advanced sculpture techniques.
• create a body of work or develop a portfolio which is reflective of their coursework in preparation for further studies.
• demonstrate advanced critical thinking and problem solving skills during each phase of the sculpture making process.
• use specific tools expertly in working with a variety of sculpture materials and techniques.

Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the Cert. of Achievement and the Cert. of Achievement-Advanced 37 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .......................... 90 units

Automotive Technician

An evening, in-service program for practicing apprentices and technicians, auto enthusiasts, and students seeking to enter the automotive technician workforce.

Automotive Machining and Engine Repair Technology
Certificate of Achievement
This certificate program prepares students for an entry-level position in automotive engine diagnostics.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate an understanding of four-stroke engine theory, basic safe machining practices, estimates and repair orders, and engine assembly.
• identify the basic electrical circuits and diagnose automotive electrical systems.
• apply the basic principles of physics as they work in the automotive industry.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the following.
AUTO 53A Automotive Mechanisms 3
AUTO 60 Automotive Electrical Systems 9
AUTO 60A Electrical Schematic Diagnosis 4.5
AUTO 60B Automotive Electronics 4.5
AUTO 60C Automotive Ignition, Fuel, and Emissions Systems 9
AUTO 64 Automotive Machining and Engine Repair 9
AUTO 64HP High Performance Engine Preparation 9
Total Units Required .......................... 48 units

A.S. Degree
Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the Cert. of Achievement-Advanced 48 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .......................... 90 units

Engine Performance

Basic Engine Performance Technology
Certificate of Achievement
This certificate prepares a student to be successful as an entry-level technician in vehicle electrical systems repairs.

Student Learning Outcomes - upon completion students will be able to:
• identify the basic electrical circuits and diagnose automotive electrical systems.
• apply the basic principles of physics as they work in the automotive industry.

1. Meet the requirements for this certificate level.
2. Complete the following.
AUTO 53A Automotive Mechanisms 3
AUTO 60 Automotive Electrical Systems 9
AUTO 60A Electrical Schematic Diagnosis 4.5
AUTO 60B Automotive Electronics 4.5
Total Units Required .......................... 21 units
**Intermediate Engine Performance Technology**  
*Certificate of Achievement*  
This certificate prepares a student to be successful as an entry-level technician in vehicle ignition, fuel, and ignition systems.

**Student Learning Outcomes - upon completion students will be able to:**
- interpret and analyze automotive ignition, fuel, and ignition systems.

1. Meet the requirements for this certificate level.  
2. Complete the following.  
   - AUTO 60C Automotive Ignition, Fuel, and Emissions Systems 9  
   - AUTO 60D Ignition Analysis and Oscilloscope Diagnosis 4.5  
   - AUTO 60E Automotive Fuel Injection 4.5  
   - **Total Units Required** ..........................18

**Advanced Engine Performance Technology**  
*Certificate of Achievement*  
This certificate helps prepare students for an entry-level position in the automotive repair industry.

**Student Learning Outcomes - upon completion students will be able to:**
- utilize the appropriate diagnostic equipment, documentation, and troubleshoot principles on various automotive systems.

1. Meet the requirements for this certificate level.  
2. Complete the following.  
   - AUTO 60F No-Start Diagnosis 4.5  
   - AUTO 60G Advanced Automotive Scan Tool Diagnosis 4.5  
   - AUTO 60H Advanced Driveability and Onboard Diagnosis 4.5  
   - AUTO 60J Advanced Lab Scope and Waveform Diagnosis 4.5  
   - **Total Units Required** ..........................18

**Advanced Engine Performance Technology**  
*A.S. Degree*  
This degree prepares students with advanced skills for an entry-level position in the automotive repair industry utilizing appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

**Student Learning Outcomes - upon completion students will be able to:**
- identify the basic electrical circuits and diagnose automotive electrical systems.  
- apply the basic principles of physics as they work in the automotive industry.  
- interpret and analyze automotive ignition, fuel, and ignition systems.  
- utilize appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

Meet the A.A./A.S. degree requirements.  
**Major** Complete the course requirements for the Cert. of Achievement-Advanced 57 units  
**GE** General Education (31-42 units)  
**Electives** Elective courses required when major units plus GE units total is less than 90  
- **Total Units Required** ..........................90 units

**Advanced Engine Performance Technology**  
*Certificate of Achievement-Advanced*  
This certificate program prepares students with advanced skills for an entry-level position in the automotive repair industry utilizing appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

**Student Learning Outcomes - upon completion students will be able to:**
- identify the basic electrical circuits and diagnose automotive electrical systems.  
- apply the basic principles of physics as they work in the automotive industry.  
- interpret and analyze automotive ignition, fuel, and ignition systems.
Automotive Chassis

Automotive Chassis Technology
Certificate of Achievement
This certificate prepares students for an entry-level position in automotive undercar inspection and repair procedures.

Student Learning Outcomes - upon completion students will be able to:
- perform undercar inspections and repair suspension, steering, hydraulic, and active braking systems.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 61A Automotive Brake Systems</td>
<td>4.5</td>
</tr>
<tr>
<td>AUTO 61B Electronically Controlled Brake Systems</td>
<td>4.5</td>
</tr>
<tr>
<td>AUTO 62A Steering, Suspension and Alignment</td>
<td>9</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 18

Automotive Chassis Technology
Certificate of Achievement-Advanced
This certificate program prepares students with advanced skills for an entry-level position in the automotive repair industry in undercar inspection and repair procedures.

Student Learning Outcomes - upon completion students will be able to:
- perform undercar inspections and repair suspension, hydraulic, and active braking systems.
- diagnose vehicle alignment concerns.
- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
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<tbody>
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<tr>
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</tr>
<tr>
<td>AUTO 62A Steering, Suspension and Alignment</td>
<td>9</td>
</tr>
<tr>
<td>AUTO 62B Advanced Wheel Alignment</td>
<td>9</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 48

Automotive Powertrain

Automotive Powertrain Technology
Certificate of Achievement
This certificate program helps prepare students for an entry-level position in the automotive repair industry in automotive transmission and differential.

Student Learning Outcomes - upon completion students will be able to:
- show an understanding of the overall operation of an automotive transmission and differential.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 63 Automotive Transmissions and Transaxles</td>
<td>9</td>
</tr>
<tr>
<td>AUTO 63A Advanced Manual Drive Train</td>
<td>9</td>
</tr>
<tr>
<td>AUTO 63D Transmission Diagnostic and Repair Techniques</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 22.5

Automotive Powertrain Technology
Certificate of Achievement-Advanced
This certificate program prepares students with advanced skills for an entry-level position in automotive transmission and differential repair.

Student Learning Outcomes - upon completion students will be able to:
- demonstrate knowledge of the overall operation of an automotive transmission and differential.
- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
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<th>Units</th>
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<tr>
<td>AUTO 53A Automotive Mechanisms</td>
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<tr>
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<td>9</td>
</tr>
<tr>
<td>AUTO 63D Transmission Diagnostic and Repair Techniques</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 43.5
Automotive Powertrain Technology

A.S. Degree
This degree prepares students with advanced skills for an entry-level position in automotive transmission and differential repair.

Student Learning Outcomes - upon completion students will be able to:
- demonstrate knowledge of the overall operation of an automotive transmission and differential.
- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.

Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the Cert. of Achievement-Advanced 43.5 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ..................................... 90 units

Additional Certificates

Smog Technician
Certificate of Achievement
This certificate program prepares students for an entry-level position in the automotive repair industry performing California state smog inspections.

Student Learning Outcomes - upon completion students will be able to:
- perform a complete California state smog inspection.

1. Meet the requirements for this certificate level.
2. Complete the following.
AUTO 65P Clean Air Car Course 7
AUTO 65W Advanced Clean Air Car Course 2.5
AUTO 60C Automotive Ignition, Fuel, & Emissions Systems 9
Total Units Required ..................................... 18.5

Advanced Automotive Technology
Certificate of Achievement-Advanced
This certificate program prepares students for an entry-level position in the automotive repair industry in advanced automotive electrical/environmental concepts.

Student Learning Outcomes - upon completion students will be able to:
- demonstrate understanding of general advanced automotive electrical/environmental concepts as they relate to automotive service, diagnosis, and repair.

1. Meet the requirements for this certificate level.
2. Complete the following.
AUTO 60 Automotive Electrical Systems 9
AUTO 60K Advanced Body Electrical 4.5
AUTO 60M Hybrid Electric Vehicles 4.5
AUTO 64G Introduction to Automotive and Light Truck Diesel Systems 4.5
AUTO 66 Automotive Air Conditioning 4.5
Total Units Required ..................................... 27

Automotive Technology

Automotive Technology
Certificate of Achievement-Advanced (Options A - C)
Complete the required courses for your option choice and meet the corresponding certificate requirements.

Option A: Automotive Machining and Engine Repair
This program prepares students for an entry-level position in the automotive repair industry in engine diagnostics.

Student Learning Outcomes - upon completion, students will be able to:
- demonstrate an application of four-stroke engine theory, basic safe machining practices, estimates and repair orders, and engine assembly.
- identify basic electrical circuits and diagnose automotive electrical circuit systems.
- apply the basic principles of physics as they work in the automotive industry.
- demonstrate knowledge of the job procurement process and hazardous materials/waste handling in the automotive industry.

AUTO 53A Automotive Mechanisms 3
AUTO 53B Automotive Electrical & Mechanical Systems 2
AUTO 57A Career Research and Employment in the Automotive Industry 2
AUTO 94A Principles of Four Stroke Cycle Gas and Diesel Engines 5
AUTO 94B Automotive Machining and Engine Service 5
AUTO 94C Automotive Machining and Engine Service 5
AUTO 94D Automotive Machining and Engine Service 5
AUTO 94E Automotive Machining and Engine Service 5
AUTO 94F Automotive Machining and Engine Service 5
Total Units Required ..................................... 37

Option B: Automotive Engine Performance
This program prepares students for an entry-level position in the automotive repair industry.

Student Learning Outcomes - upon completion, students will be able to:
- diagnose basic electrical, engine performance, and emissions systems.
- identify basic electrical circuits and diagnose automotive electrical circuit systems.
- apply the basic principles of physics as they work in the automotive industry.

AUTO 53A Automotive Mechanisms 3
AUTO 53B Automotive Electrical & Mechanical Systems 2
Option C: Automotive Chassis and Powertrain
This certificate program prepares students for an entry-level position in the automotive repair industry.

Student Learning Outcomes - upon completion, students will be able to:
• perform undercar inspections and repair suspension, steering, hydraulic, and active braking systems.
• demonstrate overall operation of an automotive transmission and differential as it relates to service, diagnosis, and repair.
• identify basic electrical circuits and diagnose automotive electrical circuit systems.
• apply the basic principles of physics as they work in the automotive industry.
• use written and oral communication skills to write repair orders and speak with customers.

Total Units Required ..................................44.5

Biological Sciences
A.S. Degree
The purpose of the Biological Sciences AS Degree is to provide a lower division science foundation for those interested in pursuing a Bachelors degree in Biology/Biological Sciences. This major prepares students for transfer to any University of California or California State University campus. A major in Biological Sciences prepares students for advanced academic work and for careers in civil service, industry or teaching. It also provides a background for professional training in such fields as biotechnology, public health, nutrition, laboratory and field research, medicine, dentistry, pharmacy and veterinary medicine.

Student Learning Outcomes - upon completion, students will be able to:
• design and complete a biological research project applying scientific methods.
• correlate structure and function in biological systems.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

BIOL 6A Form and Function in the Biological World 6
BIOL 6B Cell and Molecular Biology 6
BIOL 6C Evolution, Systematics, and Ecology 6
CHEM 1A General Chemistry 5
CHEM 1B General Chemistry 5
CHEM 1C General Chemistry and Qualitative Analysis 5

Complete a minimum of 15 units from one (1) of these two (2) options: 15-18

Option 1: Organic Chemistry
CHEM 12A Organic Chemistry (5)
CHEM 12B Organic Chemistry (5)
CHEM 12C Organic Chemistry (5)

Option 2: Physics
PHYS 2A General Introductory Physics (5)
PHYS 2B General Introductory Physics (5)
PHYS 2C General Introductory Physics (5)
or
PHYS 4A Physics for Scientists and Engineers (Mechanics) (6)
PHYS 4B Physics for Scientists and Engineers (Electricity and Magnetism) (6)
PHYS 4C Physics for Scientists and Engineers (Fluids, Waves, Optics, and Thermodynamics) (6)
Major Biological Sciences 48-51 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ........................ 90 units

Recommended elective courses:
BIOL 13, 15, 26, 40A, 40C
ES 1, ESCI 19
MATH 1A, 1B, 1C, 1D, 10

Students may complete either the Organic Chemistry or the Physics option in order to receive the A.S. Degree in Biological Sciences from De Anza College.

For students planning to transfer to a four-year institution, it may be beneficial to complete both the Organic Chemistry option and the Physics option. Course sequences in chemistry and physics are required in most B.S. Biology programs. For your specific transfer situation, please visit the Counseling Center and consult with the four-year institution.

Business Administration

Certificate of Achievement
The Business Administration Certificate of Achievement introduces the fundamental concepts and practices of business. Students obtain a basic understanding of the operation, methods, and purpose of each of the major functional areas within business: management, human resources, operations, marketing, accounting and finance. Students also learn business law fundamentals.

Student Learning Outcomes - upon completion students will be able to:
• distinguish and explain the primary functions within business such as management, human resources, business law, operations, marketing, accounting, and finance.

1. Meet the requirements for this certificate level.
2. Complete the following.

ACCT 1A Financial Accounting I 5
BUS 10 Introduction to Business 5
BUS 18 Business Law I 5

Complete two (2) courses from the following: 8-10
BUS 21 Business and Society (5)
BUS 54 Business Mathematics (5)
BUS 55 Introduction to Entrepreneurship (5)
BUS 56 Human Relations in Business (5)
BUS 57 Human Resource Management (4)
BUS 58 The Business Plan (4)
BUS 60 International Business Management (5)
BUS 65 Leadership (5)
BUS 70 Principles of E-Business (5)
BUS 87 Introduction to Selling (4)
BUS 89 Advertising (5)

BUS 90 Principles of Marketing (5)
BUS 96 Principles of Management (5)
CIS 3 Business Information Systems (4.5)
Total Units Required ............................. 23-25

Business Administration
A.A. Degree
The A.A. Degree in Business Administration is a general business degree for those who want to pursue any of the numerous career possibilities in the field of business such as Customer Service/Support Representative, Warehouse/Distribution Supervisor, Payroll Clerk/Administrator, Accounts Receivable Clerk, Collections Analyst, Executive Assistant, and Contracts Administrator. This degree provides students with an understanding of basic business practices, including operations, methods, and purpose, and an introduction to the major functional areas within business.

Student Learning Outcomes - upon completion students will be able to:
• explain how the primary functions within business (marketing, management, operations, human resources, accounting, finance, and business law) interact to achieve organizational goals.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

ACCT 1A Financial Accounting I 5
ACCT 1B Financial Accounting II 5
ACCT 1C Managerial Accounting 5
BUS 10 Introduction to Business 5
BUS 18 Business Law I 5
BUS 56 Human Relations in Business 5
BUS 60 International Business Management 5
BUS 90 Principles of Marketing 5
BUS 96 Principles of Management 5
CIS 3 Business Information Systems 4.5

Major Business Administration 49.5 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ............................. 90 units

Recommended
BUS 21, 54, 55, 57, 58, 59, 65, 69, 70, 85, 87, 89
ECON 1, 2
EWRT 1B or 2 or ESL 6
MATH 10, SPCH 70

Entrepreneurship
Certificate of Achievement
Students pursuing the Certificate of Achievement in Entrepreneurship are taught the fundamentals of small business administration and business planning. The certificate is designed to prepare students for the challenges they are likely to encounter in starting and maintaining a small business.
Student Learning Outcomes - upon completion students will be able to:
- critically evaluate business plans and describe the processes required to start, operate and measure the results of a small business.

1. Meet the requirements for this certificate level.
2. Complete the following.

BUS 55 Introduction to Entrepreneurship 5
BUS 58 The Business Plan 4

Complete three (3) courses from the following:
- BUS 59 Promoting Your Small Business (5)
- BUS 60 International Business Management (5)
- BUS 65 Leadership (5)
- BUS 70 Principles of E-Business (5)
- BUS 90 Principles of Marketing (5)

Total Units Required .................................. 24

Associate in Science in Business Administration for Transfer

A.S.-T. Degree

The Business major consists of courses appropriate for an Associate of Science in Business Administration for Transfer degree, which provides a foundational understanding of the discipline, a breadth of coursework in the discipline, and preparation for transfer to any CSU that accepts the Transfer Model Curriculum (TMC). Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcome

Upon completion of this degree, students will be prepared for successful entry into upper division courses in Business.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

BUS 10 Introduction to Business 5
BUS 18 Business Law I 5
ACCT 1B Financial Accounting II 5
ACCT 1C Managerial Accounting 5
CIS 3 Business Information Systems 4.5
ECON 1 Principles of Macroeconomics 4
ECON 2 Principles of Microeconomics 4

Complete one (1) course from the following:
- MATH 10 Elementary Statistics and Probability (5)
- MATH 11 Finite Mathematics (5)
- MATH 12 Introductory Calculus for Business and Social Science (5)

Major Business Administration for Transfer 37.5 units

Transfer GE

CSU GE or IGETC for CSU pattern (47-61)

Electives

CSU-transferrable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required ......................... 90 units

Child Development

Certificate of Achievement

This vocational training program prepares future early childhood workers and educators to work with diverse children in early childhood settings. The program includes academic instruction, job skills training, and field and community engagement experiences. Students enrolled acquire knowledge to integrate developmentally appropriate practices and their application to teaching young children along with skills in building relationships with children and families.

This certificate meets entry-level professional requirements for teachers in early childhood programs and fulfills requirements to qualify as a Teacher in a center licensed by the California Department of Social Services. Students who wish to qualify to become a Director must also take CD 59G “Supervision and Administration of Child Development Programs (Management Systems)” and CD 59H “Supervision and Administration of Child Development Programs (Leadership Skills).” The certificate requirements also meet the Child Development course work requirements for the Child Development Associate Teacher Permit.

Student Learning Outcomes - upon completion students will be able to:
- demonstrate the ability to work in a variety of settings with children and families with a commitment to uphold ethical standards.
- recognize the importance of community engagement and their role as local, national, and global advocates for children, families, and the community.
- integrate developmentally appropriate practices and their application to teaching young children.
- demonstrate skills in building relationships with children and families.

1. Meet the requirements for this certificate level.
2. Complete the following.

CD 10G Child Development (The Early Years) 4
CD 12 Child, Family & Community Interrelationships 4
CD 50 Principles and Practices of Teaching Young Children 4

Complete a minimum of nine (9) units from the following:
- CD 10H Child Development (Middle Childhood and Adolescence) (4)
- CD 52 Observation and Assessment (4)
- CD 53 Creative Arts for the Young Child (3)
- CD 54 Curriculum for Early Childhood Programs (4)
- CD 55 Literacy Development and Activities for the Young Child (3)
CD 56  Understanding and Working with English Language Learners (3)
CD 58  Infant/Toddler Development (4)
CD 61  Music and Movement (Developmental Foundations) (3)
CD 63  Math and Science Activities/Young Child (3)
CD 64  Health, Safety and Nutrition for the Young Child (4)
CD 65  Programs for School-Age Child Care (3)
CD 68  Teaching in a Diverse Society (4)
CD 71  Constructive Guidance and Discipline (3)
CD 72  Partnerships with Families in Early Childhood Education (3)

Practicum Requirement - complete one (1) course from the following:
CD 51A  Basic Student Teaching Practicum (5)
CD 57  Self Assessment for Teachers of Young Children (3)

Total Units Required ............................ 24-26

The Certificate of Achievement fulfills requirements to qualify as a Teacher in a center licensed by the Department of Social Services.

Students who wish to qualify as a Director must also take CD 59G Supervision and Administration of Child Development Programs (Management Systems) and CD 59H Supervision and Administration of Child Development Programs (Leadership Skills).

The Certificate of Achievement is designed to meet the Child Development course requirements for a Child Development Associate Teacher Permit. The Permit requires 18 quarter units (equivalent of 12 semester units).

Child Development
Certificate of Achievement-Advanced

This vocational training program prepares future early childhood workers and educators to work with diverse children in early childhood settings. The program includes academic instruction, job skills training, field experiences, and civic and community engagement skills. Students learn to integrate developmentally appropriate practices and apply them to curriculum design for teaching young children. They also learn how to build culturally responsive partnerships with children and families. The Certificate of Achievement-Advanced is designed to meet the Child Development course requirements for a Child Development Teacher Permit. The Permit also requires 24 quarter units (equivalent of 16 semester units) of General Education courses.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate the ability to work in a variety of settings with children and families with a commitment to uphold ethical standards.
• recognize the importance of community engagement and their role as local, national, and global advocates for children, families, and the community.
• integrate developmentally appropriate practices and apply them to curriculum design for teaching young children.
• demonstrate skills in building culturally responsive partnerships with children and families.

1. Meet the requirements for this certificate level.
2. Complete the following.

Current Infant and Child CPR/First Aid Certificate required.

CD 10G  Child Development (The Early Years) 4
CD 10H  Child Development (Middle Childhood and Adolescence) 4
CD 12  Child, Family and Community Interrelationships 4
CD 50  Principles and Practices of Teaching Young Children 4
CD 52  Observation and Assessment 4
CD 54  Curriculum for Early Childhood Programs 4
CD 64  Health, Safety and Nutrition for the Young Child 4
CD 68  Teaching in a Diverse Society (4)

Complete a minimum of three (3) units from the following:
CD 53  Creative Arts for the Young Child (3)
CD 55  Literacy Development and Activities for the Young Child (3)
CD 56  Understanding and Working with English Language Learners (3)
CD 57  Self Assessment for Teachers of Young Children (3)
CD 58  Infant/Toddler Development (4)
CD 59G  Supervision and Administration of Child Development Programs (Management Systems) (4)
CD 59H  Supervision and Administration of Child Development Programs (Leadership Skills) (4)
CD 60  Exceptional Children (3)
CD 61  Music and Movement (Developmental Foundations) (3)
CD 63  Math and Science Activities for the Young Child (3)
CD 65  Programs for School-Age Child Care (3)
CD 67  Supervision and Administration of Child Development Programs (Adult Supervision) (3)
CD 71  Constructive Guidance and Discipline (3)
EDUC 1  Introduction to Elementary Education in a Diverse Society (3)

Practicum Requirement
CD 51A  Basic Student Teaching Practicum 5

Total Units Required ............................ 40

The Certificate of Achievement-Advanced is designed to meet the Child Development course requirements for a Child Development Teacher Permit. The Permit also requires 24 quarter units (equivalent of 16 semester units) of General Education courses.
Child Development
A.A. Degree

The Associate in Arts Degree vocational training program prepares future early childhood workers and educators to work with diverse children in early childhood settings. The program prepares students for entry-level careers or entrance into a Bachelor's degree program in Child Development studies. The degree program focuses on integrating developmentally appropriate knowledge and practice, and developing professional competencies and job skills.

Students learn how to build partnerships with local, national and international resource organizations in order to advocate effectively for the needs of children and families. The degree fulfills the Child Development course requirements to qualify for the Child Development Permit Site Supervisor on the California Child Development Matrix. Students who wish to qualify as a Site Supervisor must also take CD 59G “Supervision and Administration of Child Development Programs (Management Systems)”, CD 59H “Supervision and Administration of Child Development Programs (Leadership Skills)” and CD 67 “Adult Supervision”.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate the ability to work in a variety of settings with children and families with a commitment to uphold ethical standards.
• build partnerships with local, national and international resource organizations in order to advocate effectively for the needs of children and families.
• integrate developmentally appropriate practices and their application to teaching young children.
• demonstrate skills in building relationships with children and families.

1. Meet the AA/AS degree requirements.
2. Complete the following.

Current Infant and Child CPR/First Aid Certificate required.

CD 10G Child Development (The Early Years) 4
CD 10H Child Development (Middle Childhood and Adolescence) 4
CD 12 Child, Family and Community Interrelationships 4
CD 50 Principles and Practices of Teaching Young Children 4
CD 52 Observation and Assessment 4
CD 54 Curriculum for Early Childhood Programs 4
CD 55 Literacy Development and Activities for the Young Child 3
CD 64 Health, Safety and Nutrition for the Young Child 4
CD 67 Supervision and Administration of Child Development Programs (Adult Supervision) 3
CD 68 Teaching in a Diverse Society 4

Complete a minimum of three (3) units from the following:
CD 53 Creative Arts for the Young Child (3)

CD 56 Understanding and Working with English Language Learners (3)
CD 57 Self Assessment for Teachers of Young Children (3)
CD 58 Infant/Toddler Development (4)
CD 59G Supervision and Administration of Child Development Programs (Management Systems) (4)
CD 59H Supervision and Administration of Child Development Programs (Leadership Skills) (4)
CD 60 Exceptional Children (3)
CD 61 Music and Movement (Developmental Foundations) (3)
CD 63 Math and Science Activities for the Young Child (3)
CD 65 Programs for School-Age Child Care (3)
CD 71 Constructive Guidance and Discipline (3)
CD 72 Partnerships with Families in Early Childhood Education (3)
CD 73 Early Childhood Mental Health (3)
CD 74 Early Childhood Mental Health Seminar and Fieldwork (3)
CD 75 Social Emotional Development in Early Childhood (3)
EDUC 1 Introduction to Elementary Education in a Diverse Society (3)

Practicum Requirement - complete the following two (2) courses:
CD 51A Basic Student Teaching Practicum 5
CD 51B Advanced Student Teaching Practicum 5

Major Child Development 51 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .......................... 90 units

Early Childhood Mental Health
Certificate of Achievement

De Anza College’s Child Development and Education Department developed the Early Childhood Mental Health Certificate to train mental health professionals at the entry- and advanced-level, ECE educators at the beginning and advanced-level, and professionals working in early education, mental health and community services settings and/or programs. Certificate requirements include student participation in field experiences with community-based, early childhood mental health programs. Students develop skills to work with both children and their families.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate the ability to work in a variety of settings with children and families with a commitment to uphold ethical standards.
• recognize the importance of community engagement and their role as local, national, and global advocates for children, families, and the community.
• integrate early childhood mental health practices to support the development of social and emotional skills in young children.
• demonstrate skills in building relationships with children and families.

1. Meet the requirements for this certificate level.
2. Complete the following.

CD 10G  Child Development (The Early Years)  4
CD 58  Infant/Toddler Development  4
CD 72  Partnerships with Families in Early Childhood Education  3
CD 73  Early Childhood Mental Health  3
CD 74  Early Childhood Mental Health Seminar and Fieldwork  3
CD 75  Social Emotional Development in Early Childhood  3

Total Units Required .................................. 20

The Certificate of Achievement is designed to meet Child Development course requirements for a Child Development Master Teacher level as specialization units. The Child Development Master Teacher permit requires 36 quarter units (equivalent of 24 semester units) ECE/CD including core courses. The permit also requires 24 GE quarter units (equivalent of 16GE semester units) plus 3 quarter units (equivalent of 2 semester units) of adult supervision.

Early Intervention/Special Education Assistant
Certificate of Achievement-Advanced
This vocational training program prepares future early childhood workers and educators to work with children with disabilities and special needs in public and private early intervention, special education and educational settings that serve typical and atypical developing young children and their families. Students are taught practical skills in early intervention and early childhood special education from a culturally responsive perspective. Students learn to integrate early intervention/special education practices and apply them to teaching young children with special needs. Certificate requirements include student participation in field experiences with community-based, inclusive educational programs.

The Certificate prepares students for two career paths: Early Intervention Assistant and Early Childhood Teacher. It is the equivalent of the Teacher level permit on the California Child Development Matrix. The Teacher level permit also requires 24 quarter units (equivalent of 16 semester units) of General Education courses.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate the ability to work in a variety of settings with children and families with a commitment to uphold ethical standards.
• recognize the importance of community engagement and their role as local, national, and global advocates for children, families, and the community.

1. Meet the requirements for this certificate level.
2. Complete the following.

Current Infant and Child CPR/First Aid Certificate required.
CD 10G  Child Development (The Early Years)  4
CD 12  Child, Family and Community Interrelationships  4
CD 50  Principles and Practices of Teaching Young Children  4
CD 52  Observation and Assessment  4
CD 55  Literacy Development and Activities for the Young Child  3
CD 58  Infant/Toddler Development  4
CD 60  Exceptional Children  3
CD 64  Health, Safety and Nutrition for the Young Child  4
CD 73  Early Childhood Mental Health  3
CD 90  Facilitating Inclusion in Early Childhood Programs: Intervention Strategies  3

Complete a minimum of three (3) units from the following:
CD 10H  Child Development (Middle Childhood and Adolescence) (4)
CD 53  Creative Arts for the Young Child (3)
CD 54  Curriculum for Early Childhood Programs (4)
CD 56  Understanding and Working with English Language Learners (3)
CD 57  Self Assessment for Teachers of Young Children (3)
CD 61  Music and Movement (Developmental Foundations) (3)
CD 63  Math and Science Activities for the Young Child (3)
CD 68  Teaching in a Diverse Society (4)
CD 71  Constructive Guidance and Discipline (3)
CD 75  Social Emotional Development in Early Childhood (3)

Practicum Requirement:
The practicum experience must be completed in an Early Intervention/Special Education Environment with an inclusion component or an Inclusion Environment.
CD 51A  Basic Student Teaching Practicum  5

Total Units Required .................................. 44

The Certificate of Achievement-Advanced is designed to meet the Early Intervention Assistant II requirements. It is the equivalent of the Teacher level permit on the California CTC Child Development Matrix. The Teacher level permit also requires 24 quarter units (equivalent of 16 semester units) of General Education courses.
Associate in Science in Early Childhood Education for Transfer

A.S.-T. Degree

The Early Childhood Education major consists of courses appropriate for an Associate in Science in Early Childhood Education for Transfer, which provides a foundational understanding of the discipline, a breadth of coursework in the discipline, and preparation for transfer to any CSU that accepts the Transfer Model Curriculum (TMC). The degree will facilitate the student’s 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, and paraprofessionals in early special education. 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.

Student Learning Outcomes - upon completion, students will be able to:

• synthesize child development research with principles and practices for early childhood teaching to create early learning environments that are respectful, supportive, and challenging for all children, from infancy through adolescence.

• design inclusive, culturally and linguistically appropriate learning environments, based on child development, child observations, family information and knowledge of culturally diverse child rearing practices.

• incorporate strategies for building respectful, reciprocal family and community relationships in order to support families with their children’s development and learning.

• assess children’s learning through observation, documentation, and interpretation, using results to guide curriculum and teaching strategies.

• recommend developmentally appropriate and culturally relevant approaches to teaching and learning that include respectful, supportive relationships with children and families, and curriculum that support foundational skills and concepts in language, math, science, art, and social relationships.

• demonstrate practices that maintain standards of health, nutrition, and safety in group care early childhood settings.

• apply ethical standards of behavior accepted by the profession of early childhood education.

1. Meet the A.A./A.S. degree requirements for transfer.

2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD 10G</td>
<td>Child Development (The Early Years)</td>
<td>4</td>
</tr>
<tr>
<td>CD 10H</td>
<td>Child Growth and Development (Middle Childhood and Adolescence)</td>
<td>4</td>
</tr>
<tr>
<td>CD 12</td>
<td>Child, Family and Community Interrelationships</td>
<td>4</td>
</tr>
<tr>
<td>CD 50</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>4</td>
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<tr>
<td>CD 51A</td>
<td>Basic Student Teaching Practicum</td>
<td>5</td>
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<tr>
<td>CD 52</td>
<td>Observation and Assessment of Children</td>
<td>4</td>
</tr>
<tr>
<td>CD 54</td>
<td>Curriculum for Early Childhood Programs</td>
<td>4</td>
</tr>
<tr>
<td>CD 64</td>
<td>Health, Safety and Nutrition for the Young Child</td>
<td>4</td>
</tr>
<tr>
<td>CD 68</td>
<td>Teaching in a Diverse Society</td>
<td>4</td>
</tr>
</tbody>
</table>

Major Transfer GE Electives

Early Childhood Education for Transfer 37 units
CSU GE or IGETC for CSU pattern (47-61)
CSU-transferrable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required ......................... 90 units

Computer Aided Design (CAD)

Computer Aided Design - Mechanical Certificate of Achievement

Students pursuing De Anza College’s Computer Aided Design Certificate of Achievement will receive education in the fundamentals of CAD that combines the use of two types of design graphic software packages. Students will learn substantive job skills Creo and SolidWorks CAD systems that will make them employable in industrial and mechanical engineering and design.

Student Learning Outcomes - upon completion, students will be able to:

• solve basic and complex drafting and design application problems using industry standard two-dimensional and three-dimensional software and feature-based parametric design software.

• apply the fundamentals of computer-aided drafting and design to disciplines such as architectural, mechanical, and industrial design and engineering.

• utilize industry standard microcomputer CAD software and the hardware, operating systems and peripherals used to facilitate it.

• create engineering notes and scaled drawings using ASME and/or International Standards Organization (ISO) specifications.

• satisfy a prospective employer with quality technical expertise in the use of two CAD tools (SolidWorks and Creo) at a level commensurate with entry- to mid-level usage in industry design and engineering.

1. Meet the requirements for this certificate level.

2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDI 51</td>
<td>Geometric Dimensioning and Tolerancing</td>
<td>2</td>
</tr>
<tr>
<td>CDI 60</td>
<td>SolidWorks (Beginning)</td>
<td>4</td>
</tr>
<tr>
<td>CDI 61</td>
<td>SolidWorks (Intermediate)</td>
<td>4</td>
</tr>
<tr>
<td>CDI 70</td>
<td>Creo Parametric (Beginning)</td>
<td>4</td>
</tr>
<tr>
<td>CDI 71</td>
<td>Creo Parametric (Intermediate)</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units Required ................................ 18
Computer Information Systems

Enterprise Security

Enterprise Security Professional
Certificate of Achievement

This certificate program prepares students to become Enterprise Security Technicians in a networking environment. In the program students learn network security basics, security policies and procedures, Network Monitoring, and Risk Analysis and Assessment based on Network Security.

Student Learning Outcomes - upon completion students will be able to:

- describe network components, protocols, architectures and the application of current communication and networking technologies.
- define properties of all modern network types.
- detect and stop security breaches in network and application layers.
- help organizations increase awareness of security policies and procedures.

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
CIS 66* Intro. to Data Communication & Networking 5
CIS 75A* Internet Concepts and TCP/IP Protocols 5

Requirements
CIS 108 Personal Computer Security Basics 4
CIS 75C Enterprise Security Threats Management 4.5
CIS 75D Enterprise Security Policy Management 3
CIS 76 Introduction to Network Security 4
CIS 108 Personal Computer Security Basics 4
CIS 170F Windows 7 Administration 4.5
Total Units Required .................................. 25.5

* To substitute this course based on previous knowledge or experience, check with the CIS department.

Enterprise Security Professional
Certificate of Achievement-Advanced

This certificate program prepares students to become Enterprise Security Technicians in a networking environment. In this program students learn network security basics, emergency response planning, internet protocols, and more advanced-level security policies and procedures, Network Monitoring, and Risk Analysis and Assessment based on Network Security.

Student Learning Outcomes - upon completion students will be able to:

- describe network components, protocols, architectures and the application of current communication and networking technologies.
- define properties of all modern network types.
- determine, at a more advanced level, how to detect and stop security breaches in network and application layer.
- help organizations increase awareness of security policies and procedures.

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
CIS 66* Intro. to Data Communication & Networking 5
CIS 75A* Internet Concepts and TCP/IP Protocols 5

Requirements
CIS 75C Enterprise Security Threats Management 4.5
CIS 75D Enterprise Security Policy Management 3
CIS 75E Enterprise Emergency Response Planning 2
CIS 76 Introduction to Network Security 4
CIS 108 Personal Computer Security Basics 4
CIS 170F Windows 7 Administration 4.5
Total Units Required .................................. 32

Enterprise Security Professional
A.A. Degree

The Associate Degree program offers students the opportunity to study information security principles and theories that focus on asset protection. In this program students learn network security basics, security policies and procedures, Network Monitoring, and Risk Analysis and Assessment based on Network Security.

Students in this program can pursue either a general course of study or a concentration in information security. Graduates find employment in general public or private management, federal or local government civil service, military service, law enforcement, and private security.

Student Learning Outcomes - upon completion students will be able to:

- describe network components, protocols, architectures and the application of current communication and networking technologies.
- define properties of all modern network types.
- determine, at a more advanced level, how to detect and stop security breaches in network and application layer.
- help organizations increase awareness of security policies and procedures.

Meet the A.A./A.S. degree requirements.

Major Complete the course requirements for the Enterprise Security Professional Cert. of Achievement-Advanced 32 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ................................. 90 units

Database Design

Database Design for Developers (Oracle)
Certificate of Achievement

The Database Design for Developers Certificate of Achievement includes database management system fundamentals, SQL, PL/SQL and performance tuning. Students become proficient in organizing essential
information and abstract relationships into a database. They also learn to update, maintain, and repair databases and improve database performance. Database skills are applied by Software Engineers, Business Analysts, Database Architects, Database Administrators, Database Designers and Reporting Analysts.

Student Learning Outcomes - upon completion, students will be able to:
• prepare and review a database design that includes logical and system representations.
• design, code and debug SQL and PL/SQL programs.
• apply performance tuning techniques to large-scale database applications.
• create, design and debug intermediate level programs with basic C programming language.
• create a database that is optimized to meet defined technical requirements.

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.

CIS 15AG  Intro. to Computer Programming Using C (4.5)
CIS 15BG  Intermediate Problem Solving in C (4.5)
CIS 22A  Beginning Programming Methodologies in C++ (4.5)
CIS 22B  Intermediate Programming Methodologies in C++ (4.5)

Complete the following courses:
CIS 64A  Database Management Systems 4.5
CIS 64B  Introduction to SQL 4.5
CIS 64C  Introduction to PL/SQL 4.5
CIS 64D  Database Tuning 3
Total Units Required ......................... 25.5

Network Administration

Network Administration
Certificate of Achievement
This certificate program offers studies in overseeing and maintaining Windows systems as part of a network enterprise. Students become proficient in running administrative processes on a Windows operating system. Focus is placed on organization, security, and upkeep decisions as part of a larger business environment.

Student Learning Outcomes - upon completion, students will be able to:
• use UNIX/LINUX utilities and shell features for file manipulation and communication
• create algorithms and code, document, debug, and test shell scripts that interact with the UNIX/LINUX OS
• create algorithms to solve introductory-level problems using C programming and shell scripting or perl languages.
• identify networking components and protocols in the context of architectures and technologies for LAN, WAN and Internet networks.

Certificate of Achievement-Advanced

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.

CIS 15AG  Intro. to Computer Programming Using C (4.5)
CIS 15BG  Intermediate Problem Solving in C (4.5)
CIS 22A  Beginning Programming Methodologies in C++ (4.5)
CIS 22B  Intermediate Programming Methodologies in C++ (4.5)
CIS 18A  Introduction to UNIX/LINUX 4.5
CIS 66  Intro. to Data Communication & Networking 5
CIS 67A  Local Area Networks 4
CIS 67B  Introduction to Wide Area Networking 4
CIS 75A  Internet Concepts and TCP/IP Protocols 5

Total Units Required ......................... 22

* Based on previous experience or knowledge, student may substitute another course of equal or greater unit value with departmental approval.
Complete one (1) course from: 4.5
CIS 18B Advanced UNIX/LINUX (4.5)
CIS 33A Programming in PERL (4.5)

Complete one (1) course from: 4.5-5
CIS 31 Operating System Concepts (5)
CIS 170F Windows 7 Administration (4.5)

Total Units Required ......................... 40.5-41

Check with the CIS department about the recommended sequence for completing the above courses.

A.A. Degree
Meet the A.A./A.S. degree requirements.

Major
Complete the course requirements for the Network Administration
Cert. of Achievement-Advanced 40.5-41 units

GE
General Education (31-42 units)

Electives
Elective courses required when major units plus GE units total is less than 90

Total Units Required ......................... 90 units

Check with the CIS department about the recommended sequence for completing the above courses.

Business Programming
Certificate of Achievement-Advanced

A.A. Degree
The Business Programming certificate and degree program creates a programming savvy entrepreneur who can make decisions about finances and technology, and who understands how to run an enterprise from both the technology and business perspectives. This program teaches skills combined from business and programming that enable a more in-depth view into the technology necessary to run a business in the 21st century.

Student Learning Outcomes - upon completion, students will be able to:
• design and develop business applications complete with user interface, algorithms and storage.
• analyze business requirements and create systems that meet the requirements.
• design and implement network topologies using knowledge about modern networks.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the following.
Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.
CIS 15AG Intro. to Computer Programming Using C (4.5)
CIS 15BG Intermediate Problem Solving in C (4.5)
CIS 22A Beginning Programming Methodologies in C++ (4.5)
CIS 22B Intermediate Programming Methodologies in C++ (4.5)

Complete one (1) course from: 4.5
CIS 15C Data Structures (4.5)
CIS 63 Systems Design (4.5)
CIS 22C Data Abstraction and Structures (4.5)

Complete the following courses:
ACCT 1A Financial Accounting I 5
BUS 10 Introduction to Business 5
CIS 14A Visual Basic.NET Programming I 4.5
CIS 14B Visual Basic.NET Programming II 4.5
CIS 64A Database Management Systems 4.5
CIS 66 Intro. to Data Communication & Networking 5

Complete one (1) course from: 4-5
CIS 3 Business Information Systems (4.5)
CIS 67A Local Area Networks (4)
CIS 86 Computer Accounting Systems (5)

Total Units Required ......................... 46-47

Check with the CIS department about the recommended sequence for completing the above courses.

A.A. Degree
Meet the A.A./A.S. degree requirements.

Major
Complete the course requirements for the Business Programming
Cert. of Achievement-Advanced 46-47 units

GE
General Education (31-42 units)

Electives
Elective courses required when major units plus GE units total is less than 90

Total Units Required ......................... 90 units

Check with the CIS department about the recommended sequence for completing the above courses.

Network Basics
Certificate of Achievement

The Network Basics Certificate of Achievement prepares students for entry-level employment as a computer support or network technician. Students are introduced to programming, networking, and Internet protocols. This certificate program also gives students a foundation for further study in either network administration or programming.

Student Learning Outcomes - upon completion, students will be able to:
• create algorithms to solve introductory-level problems using C programming language through the stages of coding, documenting, debugging, reading and testing with various tools.
• identify networking components and protocols in the context of architectures and technologies for LAN, WAN and Internet networks.

1. Meet the requirements for this certificate level.
2. Complete the following.
Complete one (1) course from: 4.5
CIS 15AG Intro. to Computer Programming Using C (4.5)
CIS 22A Beginning Programming Methodologies in C++ (4.5)
Network Programming
Certificate of Achievement-Advanced
A.A. Degree
This certificate of achievement-advanced and degree program gives students a foundation for either employment or further study in the field of network programming. The curriculum offers students an introduction to computer programming, networking, and Internet protocols. Advanced topics include data structures, advanced computer programming, Internet programming with TCP/IP, and UNIX/LINUX utilities and shell features for file manipulation and communication.

Student Learning Outcomes - upon completion, students will be able to:
• design solutions for advanced network problems creating distributed programs using Transmission Control Protocol and Internet Protocol.
• create algorithms and code, document, debug and test advanced-level C programs using multiple source and header files.
• use UNIX/LINUX utilities and shell features for file manipulation and communication.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.
CIS 15AG Intro. to Computer Programming Using C (4.5)
CIS 15BG Intermediate Problem Solving in C (4.5)
or
CIS 22A Beginning Programming Methodologies in C++ (4.5)
CIS 22B Intermediate Programming Methodologies in C++ (4.5)

Complete one (1) course from:
CIS 15C Data Structures (4.5)
CIS 22C Data Abstraction and Structures (4.5)

Complete the following courses:
CIS 18A Introduction to UNIX/LINUX (4.5)
CIS 26B Advanced C Programming (4.5)
CIS 66 Introduction to Data Communication and Networking (5)
CIS 75A Internet Concepts and TCP/IP Protocols (5)
CIS 75B Internet Programming with TCP/IP (4.5)

Complete one (1) course from the following:
CIS 18B Advanced UNIX/LINUX (4.5)
CIS 21JA Introduction to 8086 IA32 Processor Assembly Language (4.5)
CIS 31 Operating System Concepts (5)
CIS 33A Programming in PERL (4.5)
CIS 67A Local Area Networks (4)

CIS 67B Introduction to Wide Area Networking (4)
Total Units Required ............................... 41-42

Check with the CIS department about the recommended sequence for completing the above courses.

A.A. Degree
Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the Network Programming
Cert. of Achievement-Advanced 41-42 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ............................... 90 units

Check with the CIS department about the recommended sequence for completing the above courses.

Programming in C/C++
Certificate of Achievement
The C/C++ Certificate of Achievement program prepares students for entry-level employment in computer programming, software testing and integration, software analysis or algorithm design. The curriculum offers students an introduction to programming in C, intermediate problem solving in C, and advanced C/C++ programming and design. The Certificate of Achievement program also provides a solid foundation and skill set for those interested in pursuing further study towards a Certificate of Achievement-Advanced or AA Degree in Systems Programming or Business Programming.

Student Learning Outcomes - upon completion, students will be able to:
• read, analyze and explain advanced C/C++ programs
• design solutions for advanced problems using appropriate design methodology incorporating advanced programming constructs.
• create algorithms and code, document, debug and test advanced level C/C++ programs using multiple source and header files.

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.
CIS 15AG Intro. to Computer Programming Using C (4.5)
CIS 15BG Intermediate Problem Solving in C (4.5)
or
CIS 22A Beginning Programming Methodologies in C++ (4.5)
CIS 22B Intermediate Programming Methodologies in C++ (4.5)

Complete one (1) course from:
CIS 15C Data Structures (4.5)
CIS 22C Data Abstraction and Structures (4.5)

Complete the following courses:
CIS 18A Introduction to UNIX/LINUX (4.5)
CIS 26B Advanced C Programming (4.5)
CIS 66 Introduction to Data Communication and Networking (5)
CIS 75A Internet Concepts and TCP/IP Protocols (5)
CIS 75B Internet Programming with TCP/IP (4.5)

Complete one (1) course from the following:
CIS 18B Advanced UNIX/LINUX (4.5)
CIS 21JA Introduction to 8086 IA32 Processor Assembly Language (4.5)
CIS 31 Operating System Concepts (5)
CIS 33A Programming in PERL (4.5)
CIS 67A Local Area Networks (4)

CIS 27 Programming in C++ for C/Java Programmers (4.5)
Total Units Required ............................... 18
Programming in JAVA  
Certificate of Achievement  
This program gives students the knowledge and skills necessary to develop client/server, web and mobile environments. Organizations running networks on private and public clouds pass information among Desktop, Servers, and Mobile Devices, and count on Java as a general-purpose, object oriented solution to fulfill the development requirement of applications. The flexible nature of the language is driving the demand for trained Java programmers.

Student Learning Outcomes - upon completion, students will be able to:  
• read, analyze and debug code using CoreJava  
• design solutions using object-oriented programming constructs and advanced concepts in the Java Development Kit.  
• design web applications using a three-tier architecture and applying advanced concepts for Java Enterprise Edition.  
• design Java programs for the Android platform.  
• create, design and debug advanced-level programs with Java language.

1. Meet the requirements for this certificate level.  
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.  
CIS 15AG Intro. to Computer Programming Using C (4.5)  
CIS 15BG Intermediate Problem Solving in C (4.5)  
or  
CIS 22A Beginning Programming Methodologies in C++ (4.5)  
CIS 22B Intermediate Programming Methodologies in C++ (4.5)

Total Units Required ...............................22.5

Programming in PERL  
Certificate of Achievement  
The Programming in PERL Certificate of Achievement certifies that the student can create Perl programs. Perl is a continuously developing language, designed for practical management of important server systems. Perl programming is a key skill used in server processing, web host processing, and integrating multiple subsystems. Students develop basic knowledge of Perl which enables them to match interfaces of web protocol subsystems, the operating system, and database subsystems.

Student Learning Outcomes - upon completion, students will be able to:  
• read, analyze and explain intermediate level C programs.  
• design solutions for intermediate-level problems using appropriate design methodology incorporating intermediate programming constructs.  
• create algorithms and code, document, debug, and test intermediate level C programs.  
• use the UNIX/LINUX Operating System utilities and shell features for basic file manipulation, networking, and communication.  
• design, code, document, analyze, debug, and test advanced-level Perl programs that include object-oriented Perl modules and access to database, TCP/IP, and system processes.

1. Meet the requirements for this certificate level.  
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.  
CIS 15AG Intro. to Computer Programming Using C (4.5)  
CIS 15BG Intermediate Problem Solving in C (4.5)  
or  
CIS 22A Beginning Programming Methodologies in C++ (4.5)  
CIS 22B Intermediate Programming Methodologies in C++ (4.5)

Complete the following:  
CIS 18A Introduction to UNIX/LINUX 4.5  
CIS 33A Programming in PERL 4.5  
CIS 33B Advanced PERL Programming 4.5

Total Units Required ...............................22.5

Systems Programming  
Certificate of Achievement-Advanced  
A.A. Degree  
Students pursuing the Systems Programming Certificate of Achievement-Advanced or AA degree learn computer programming fundamentals of both low-level and high-level languages and gain computing experience on both Windows and Linux platforms.

Student Learning Outcomes - upon completion, students will be able to:  
• create a design, implement and debug solutions for computing systems of different levels of complexity using C and C++.  
• create, design, implement, and debug solutions for embedded systems such as 8086/ IA32 processor using Assembly Language.  
• use UNIX/LINUX utilities and shell features for file manipulation and communication.

Certificate of Achievement-Advanced  
1. Meet the requirements for this certificate level.  
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.  
CIS 15AG Intro. to Computer Programming Using C (4.5)  
CIS 15BG Intermediate Problem Solving in C (4.5)  
or  
CIS 22A Beginning Programming Methodologies in C++ (4.5)  
CIS 22B Intermediate Programming Methodologies in C++ (4.5)
Complete one (1) course from:
CIS 15C  Data Structures (4.5)
CIS 22C  Data Abstraction and Structures (4.5)

Complete the following:
CIS 18A  Introduction to UNIX/LINUX 4.5
CIS 21JA Introduction to 8086 IA32 Processor Assembly Language 4.5
CIS 26B  Advanced C Programming 4.5
CIS 27  Programming in C++ for C/Java Programmers 4.5
CIS 31  Operating System Concepts 5

Complete one (1) course from:
4.5-5
CIS 18B  Advanced UNIX/LINUX (4.5)
CIS 28  Object Oriented Analysis and Design (4.5)
CIS 35A  Java Programming as a Second Language (4.5)
CIS 66  Intro. to Data Communication and Networking (5)

Total Units Required .......................... 41-41.5

Check with the CIS department about the recommended sequence for completing the above courses.

A.A. Degree
Meet the A.A./ A.S. degree requirements.
Major
Complete the course requirements for the Systems Programming
Cert. of Achievement-Advanced 41-41.5 units
GE
General Education (31-42 units)
Electives
Elective courses required when major units plus GE units total is less than 90
Total Units Required .......................... 90 units

Check with the CIS department about the recommended sequence for completing the above courses.

UNIX/LINUX Operating System Certificate of Achievement
Students pursuing the UNIX/LINUX Operating System Certificate of Achievement learn the fundamentals of the UNIX/LINUX OS, ranging from text file manipulation, job control, and communication to implementation of shell scripts to automate tasks.

Student Learning Outcomes - upon completion, students will be able to:
• use UNIX/LINUX utilities and shell features for file manipulation, job control, and communication.
• create algorithms and code, document, debug, and test shell scripts that interact with the UNIX/LINUX Operating System.

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete both CIS 15AG and 15BG, or both CIS 22A and CIS 22B.
CIS 15AG  Intro. to Computer Programming Using C (4.5) 9
CIS 15BG  Intermediate Problem Solving in C (4.5)
or
CIS 22A  Beginning Programming Methodologies in C++ (4.5)
CIS 22B  Intermediate Programming Methodologies in C++ (4.5)

Complete the following:
CIS 18A  Introduction to UNIX/LINUX 4.5
CIS 18B  Advanced UNIX/LINUX 4.5
CIS 18C  Shell Programming 4.5

Total Units Required .......................... 22.5

Visual Basic Programming Certificate of Achievement
The Visual Basic Certificate of Achievement program prepares students for entry-level positions such as: Visual Basic Developer, .NET Developer, and Web Database Developer. Additionally, students will enhance their skills in working with spreadsheets and databases and these skills can be applied to degrees in MIS, Web Development, or any associated area.

Student Learning Outcomes - upon completion, students will be able to:
• develop and present a plan for improving a business using the business decision making model utilizing hardware and software applications such as word processing, spreadsheets, and/or databases.
• design, create and debug an application incorporating class modules, bas modules, multiple forms, and database updating.
• design, create, and debug a Web application using ASP.NET 3.5

1. Meet the requirements for this certificate level.
2. Complete the following.

CIS 3  Business Information Systems 4.5
CIS 14A  Visual Basic.NET Programming I 4.5
CIS 14B  Visual Basic.NET Programming II 4.5
CIS 86  Computer Accounting Systems 5

Total Units Required .......................... 18.5

Web Development Certificate of Achievement
The Certificate of Achievement in Web Development certifies that the student can create web pages and client side programming for web pages.

Student Learning Outcomes - upon completion, students will be able to:
• create algorithms and code, document, debug, and test introductory-level programs in a high-level programming language.
• create web pages using Extensible Hypertext Markup Language (XHTML), Cascading Style Sheets (CSS), JavaScript, and the Document Object Model (DOM), and demonstrate how they interact together within a web document.
1. Meet the requirements for this certificate level.
2. Complete the following.

Complete one (1) course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 15AG</td>
<td>Intro. to Computer Programming Using C (4.5)</td>
<td>4.5</td>
</tr>
<tr>
<td>CIS 14A</td>
<td>Visual Basic Programming I (4.5)</td>
<td></td>
</tr>
<tr>
<td>CIS 22A</td>
<td>Beginning Programming Methodologies in C++ (4.5)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 18A</td>
<td>Introduction to UNIX/LINUX</td>
<td>4.5</td>
</tr>
<tr>
<td>CIS 89A</td>
<td>World Wide Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 89C</td>
<td>Client Side Programming with JavaScript</td>
<td>4.5</td>
</tr>
<tr>
<td>CIS 98</td>
<td>Digital Image Editing Software (Photoshop)</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 21

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**English**

**A.A. Degree**

The English major at De Anza College offers students the opportunity to study language, literature, creative writing and composition and to deepen critical thinking, communication skills and aesthetic awareness. The English major also prepares students for further study leading to employment and internships in fields such as education, business, law, editing and writing. The program further prepares students to become effective communicators and broadly literate members of the community.

**Student Learning Outcomes - upon completion, students will be able to:**

- demonstrate awareness of diverse social, critical, historical and cultural perspectives by reading and responding to a range of literary texts.
- analyze texts representing a wide range of genres including poetry, drama, fiction, and film.
- identify and make relevant connections between texts of various historical periods.
- write well developed and effectively organized essays including in-class essays, interpretive arguments, and essays incorporating research.
- synthesize historical, formal, and critical ideas in interpreting a text.

**Prerequisite**

EWRT 1A Composition and Reading

1. Meet the AA/AS degree requirements.
2. Complete the following.

Complete one (1) course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWRT 1B</td>
<td>Reading, Writing, and Research (5)</td>
<td>5</td>
</tr>
<tr>
<td>EWRT 2</td>
<td>Critical Reading, Writing, and Thinking (5)</td>
<td></td>
</tr>
</tbody>
</table>

Complete three (3) courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELIT 46A</td>
<td>Major British Writers (Medieval and Renaissance) (4)</td>
<td></td>
</tr>
<tr>
<td>ELIT 46B</td>
<td>Major British Writers (Neo-Classical and Romantic) (4)</td>
<td></td>
</tr>
</tbody>
</table>

Total Units Required .......................... 29-30 units

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**Major**

**English**

**GE**

**General Education (31-42 units)**

**Electives**

Select electives required when major units plus GE units total is less than 90

Total Units Required .......................... 90 units
Environmental Studies

Energy Management and Building Science

Certificate of Achievement

This program trains students in 21st century energy management/climate policy principles, practices, and technology; environmental science principles; laws of thermodynamics; and effective design and management of energy systems and a sustainable society based on energy efficiency principles. The program will also prepare students in Level 1 introductory energy management practices, protocols, monitoring and evaluation of energy equipment and systems.

Student Learning Outcomes - upon completion, students will be able to:

- investigate and communicate the relationships between energy management/climate policy and ecological principles and evaluate the role of energy management in fostering a sustainable society.
- demonstrate an understanding of energy management principles, laws of thermodynamics, effective design of energy systems and a sustainable society utilizing energy management systems.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 1</td>
<td>Introduction to Environmental Studies</td>
<td>4</td>
</tr>
<tr>
<td>ES 58</td>
<td>Introduction to Green Building</td>
<td>1</td>
</tr>
<tr>
<td>ES 64</td>
<td>AB 32 (CA Global Warming Solutions Act of 2006)</td>
<td>1</td>
</tr>
<tr>
<td>ES 65</td>
<td>Environmental Stewardship</td>
<td>1</td>
</tr>
<tr>
<td>ES 66</td>
<td>Environmental Leadership</td>
<td>1</td>
</tr>
<tr>
<td>ES 67</td>
<td>Environmental Team-Building</td>
<td>1</td>
</tr>
<tr>
<td>ES 69</td>
<td>Energy Reliability and Your Organization</td>
<td>1</td>
</tr>
<tr>
<td>ES 70</td>
<td>Introduction to Energy Management Technology</td>
<td>1</td>
</tr>
<tr>
<td>ES 70LX</td>
<td>Energy Management Technology and Principles of Building Performance Lab.</td>
<td>1</td>
</tr>
<tr>
<td>ES 71</td>
<td>The Building Envelope</td>
<td>1</td>
</tr>
<tr>
<td>ES 71LX</td>
<td>The Building Envelope and Climate Responsive Building Design/ Construction Lab.</td>
<td>1</td>
</tr>
<tr>
<td>ES 72</td>
<td>Heating, Ventilating &amp; Air Conditioning (HVAC) Systems</td>
<td>1</td>
</tr>
<tr>
<td>ES 73</td>
<td>Electric Motors and Drives</td>
<td>1</td>
</tr>
<tr>
<td>ES 74</td>
<td>Lighting Distribution Systems</td>
<td>1</td>
</tr>
<tr>
<td>ES 75</td>
<td>Electric Power Systems</td>
<td>1</td>
</tr>
<tr>
<td>ES 76</td>
<td>Energy Star Products</td>
<td>1</td>
</tr>
<tr>
<td>ES 76A</td>
<td>Solar Thermal Systems</td>
<td>1</td>
</tr>
<tr>
<td>ES 78</td>
<td>Energy Management Systems and Controls</td>
<td>1</td>
</tr>
<tr>
<td>ES 79</td>
<td>Renewable and Alternative Energy Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESCI 61</td>
<td>Introduction to Photovoltaic (PV) Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 23

Environmental Resource Management and Pollution Prevention

Certificate of Achievement

In this career-oriented program, students are trained in the interrelated fields of environmental resource management (sustainable multiple-use management of our fundamental environmental resources - air, water, land, food and extracted materials) and pollution prevention. The training received is multidisciplinary, covering the areas of law/regulation, public health, economics, and science and technology, and includes coursework covering a variety of practical management tools that employers look for. Upon completion, students are prepared for employment as entry-level environmental management/pollution prevention specialists in a wide range of positions and settings, including working for business/industry, government, and non-profit organizations. This certificate is the first step in a career ladder whereby students can optionally choose to continue on to then complete a Certificate of Achievement-Advanced and finally an A.A. degree.

Student Learning Outcomes - upon completion, students will be able to:

- identify fundamental environmental management/pollution prevention issues and apply sustainable solutions.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 2</td>
<td>Humans, the Environment and Sustainability</td>
<td>4</td>
</tr>
<tr>
<td>ES 6</td>
<td>Introduction to Environmental Law</td>
<td>4</td>
</tr>
<tr>
<td>ES 50</td>
<td>Introduction to Environmental Resource Management and Pollution Prevention</td>
<td>4</td>
</tr>
<tr>
<td>ES 56</td>
<td>Introduction to Environmental Health</td>
<td>2</td>
</tr>
<tr>
<td>ES 64</td>
<td>AB 32 (CA Global Warming Solutions Act of 2006)</td>
<td>1</td>
</tr>
<tr>
<td>ES 95</td>
<td>Introduction to Environmental Careers</td>
<td>1</td>
</tr>
<tr>
<td>ES 62A</td>
<td>Environmental Management Tools: Environmental Management Systems (EMS) and Environmental Performance Metrics (2)</td>
<td>4</td>
</tr>
<tr>
<td>ES 62B</td>
<td>Environmental Management Tools: Environmental Impact Reports (EIRs) (2)</td>
<td>4</td>
</tr>
<tr>
<td>ES 62C</td>
<td>Environmental Management Tools: Environmental Site Assessments (ESAs) (2)</td>
<td>4</td>
</tr>
<tr>
<td>ES 62D</td>
<td>Environmental Management Tools: Industrial Ecology and Sustainable Design Principles (2)</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 23

Environmental Resource Management and Pollution Prevention

Certificate of Achievement-Advanced

In this career-oriented program, students are trained in the interrelated fields of environmental resource management (sustainable multiple-use management of our fundamental environmental resources - air, water, land, food and extracted materials) and pollution prevention. The training received is multidisciplinary, covering the areas of law/regulation, public health, economics, and science and technology, and includes coursework covering a variety of practical management tools that employers look for. Upon completion, students are prepared for employment as environmental management/pollution prevention specialists in a wide range of positions.
and settings, including working for business/industry, government, and non-profit organizations. This certificate is the middle step in a career ladder with the first step being a Certificate of Achievement and the last (optional) step being an A.A. degree.

**Student Learning Outcomes - upon completion, students will be able to:**
- identify both fundamental and advanced environmental management/pollution prevention issues and apply sustainable solutions.

1. Meet the requirements for this certificate level.
2. Complete the Certificate of Achievement course requirements.
3. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
</table>

**Complete the two (2) courses from the following not taken in completing the Certificate of Achievement:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 62A</td>
<td>Environmental Management Tools: Environmental Management Systems (EMS) and Environmental Performance Metrics (2)</td>
<td>2</td>
</tr>
<tr>
<td>ES 62B</td>
<td>Environmental Management Tools: Environmental Impact Reports (EIRs) (2)</td>
<td>2</td>
</tr>
<tr>
<td>ES 62C</td>
<td>Environmental Management Tools: Environmental Site Assessments (ESAs) (2)</td>
<td>2</td>
</tr>
<tr>
<td>ES 62D</td>
<td>Environmental Management Tools: Industrial Ecology and Sustainable Design Principles (2)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Complete a minimum of three (3) courses from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 58</td>
<td>Introduction to Green Building (1)</td>
<td>1</td>
</tr>
<tr>
<td>ES 63</td>
<td>Agenda 21: Blueprint for Sustainability (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 65</td>
<td>Environmental Stewardship (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 66</td>
<td>Environmental Leadership (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 67</td>
<td>Environmental Team-Building (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 68</td>
<td>Community-Based Coalitions &amp; Stakeholders (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 70</td>
<td>Intro. to Energy Management Technology (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 79</td>
<td>Renewable and Alternative Energy Systems (I)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units Required ..........................................................33**

**Environmental Resource Management and Pollution Prevention**

**A.A. Degree**

In this career-oriented program, students are trained in the interrelated fields of environmental resource management (sustainable multiple-use management of our fundamental environmental resources - air, water, land, food and extracted materials) and pollution prevention. The training received is multidisciplinary, covering the areas of law/regulation, public health, economics, and science and technology, and includes coursework covering a variety of practical management tools that employers look for. Upon completion, students are prepared for either employment as environmental management/pollution prevention specialists (in a wide range of positions and settings, including working for business/industry, government, and non-profit organizations) or for transfer to four-year degree programs in Environmental Studies or related majors. This degree is the last step in a career ladder with the first step being a Certificate of Achievement and the second being a Certificate of Achievement-Advanced.

**Student Learning Outcomes - upon completion, students will be able to:**
- identify both fundamental and advanced environmental management/pollution prevention issues and apply sustainable solutions.
- understand and appreciate the broader context of their work in terms of achieving a sustainable society.

1. Meet the AA/AS degree requirements.
2. Complete the course requirements listed for the Certificate of Achievement and the Certificate of Achievement-Advanced.
3. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 68</td>
<td>Community-Based Coalitions &amp; Stakeholders (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 70</td>
<td>Intro. to Energy Management Technology (I)</td>
<td>1</td>
</tr>
<tr>
<td>ES 79</td>
<td>Renewable and Alternative Energy Systems (I)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Complete the five (5) courses from the following not taken in completing the Certificate of Achievement-Advanced:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 58</td>
<td>Introduction to Green Building (1)</td>
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<tr>
<td>ES 63</td>
<td>Agenda 21: Blueprint for Sustainability (I)</td>
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<tr>
<td>ES 65</td>
<td>Environmental Stewardship (I)</td>
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<tr>
<td>ES 66</td>
<td>Environmental Leadership (I)</td>
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<tr>
<td>ES 67</td>
<td>Environmental Team-Building (I)</td>
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<tr>
<td>ES 68</td>
<td>Community-Based Coalitions &amp; Stakeholders (I)</td>
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<tr>
<td>ES 70</td>
<td>Intro. to Energy Management Technology (I)</td>
<td>1</td>
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<tr>
<td>ES 79</td>
<td>Renewable and Alternative Energy Systems (I)</td>
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**Total Units Required ..........................................................33**

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<thead>
<tr>
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**Complete a minimum of 14 units from the following:**

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<th>Course Title</th>
<th>Units</th>
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<tr>
<td>ES 1</td>
<td>Introduction to Environmental Studies (4)</td>
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<tr>
<td>ES 80</td>
<td>California Field Studies (1)</td>
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<td>ES 85A</td>
<td>California Native Plants and Animals (2)</td>
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<td>ES 90</td>
<td>Environmental Research and Field Methods (4)</td>
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<td>ES 95B</td>
<td>Environmental Studies Internship (2)</td>
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<td>ESC 1</td>
<td>Environmental Science (4)</td>
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<td>ESC 1L</td>
<td>Environmental Science Lab (1)</td>
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<td>ESC 20</td>
<td>Introduction to Biodiversity (5)</td>
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<tr>
<td>ESC 50</td>
<td>Introduction to Wildlife Corridor Technician: Connectivity (4)</td>
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<tr>
<td>ESC 61</td>
<td>Intro. to Photovoltaic (PV) Technology (3)</td>
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<tr>
<td>ESC 63</td>
<td>Photovoltaic (PV) Technology Field Project (2)</td>
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</table>

**Wildlife Science Technician**

**Certificate of Achievement**

Technician-level career trained in wildlife science technology including the scientific principles of environmental science, biodiversity and ecology, corridor ecology, landscape ecology and ecosystem (adaptive) management. Trained in Level 1 introductory wildlife science and monitoring, field-based
practices and scientific protocols. The WS Technician will apply these principles and theory of wildlife science to assist in the preservation, protection and restoration of native species and ecosystems.

Student Learning Outcomes - upon completion, students will be able to:
- investigate the practice, field protocols and technology of wildlife science.
- utilize environmental science and the concepts and principles of wildlife science including biodiversity, ecology, corridor and landscape ecology and ecosystem (adaptive) management as branches of the sciences and apply in a field setting utilizing the Rapid Assessment Methodology developed at De Anza College in partnership with resource agencies and others.

Wildlife Science Technician Certificate of Achievement

Wildlife Technician-level career trained in wildlife science technology including the scientific principles of environmental science, biodiversity and ecology, corridor ecology, landscape ecology and ecosystem (adaptive) management. Trained in Level 2 wildlife science and monitoring, field-based practices and scientific protocols. The WS Technician will apply these principles and theory of wildlife science to assist in the preservation, protection and restoration of native species and ecosystems.

Student Learning Outcomes - upon completion, students will be able to:
- investigate the practice, field protocols and technology of wildlife science.
- utilize environmental science and the concepts and principles of wildlife science including biodiversity, ecology, corridor and landscape ecology and ecosystem (adaptive) management as branches of the sciences and apply in a field setting utilizing the Rapid Assessment Methodology developed at De Anza College in partnership with resource agencies and others.
- examine the local wildlife and core corridor/landscape areas utilized by wildlife species encountered in the field (Central Coast Region of California); Examine the data analysis equipment and processes used in wildlife sciences;
- apply the wildlife sciences concepts, techniques and protocols (including the Rapid Assessment Methodology) to local case studies to develop strategies for implementing community-based, collaborate efforts to preserve, protect and restore native species, ecosystems and landscape connectivity.

1. Meet the requirements for this certificate level.
2. Complete the course requirements for the Wildlife Science Technician Certificate of Achievement

Wildlife Science Technician Certificate of Achievement

1. Meet the requirements for this certificate level.
2. Complete the course requirements for the Wildlife Science Technician Certificate of Achievement

Wildlife Science Technician Certificate of Achievement

Wildlife Science Technician

A.A. Degree

Wildlife Technician-level career trained in wildlife science technology including the scientific principles of environmental science, biodiversity and ecology, corridor ecology, landscape ecology and ecosystem (adaptive) management. Trained in Level 1, 2 and 3 wildlife science and monitoring, field-based practices and scientific protocols. The WS Technician will apply these principles and theory of wildlife science to assist in the preservation, protection and restoration of native species and ecosystems and participate in the development of a regional habitat conservation plan (local) and/or natural community and conservation plan (state).

Student Learning Outcomes - upon completion, students will be able to:
- investigate the practice, field protocols and technology of wildlife science.
- utilize environmental science and the concepts and principles of wildlife science including biodiversity, ecology, corridor and landscape ecology and ecosystem (adaptive) management as branches of the sciences and apply in a
field setting utilizing the Rapid Assessment Methodology developed at De Anza College in partnership with resource agencies and others.

- examine the local wildlife and core corridor/landscape areas utilized by wildlife species encountered in the field (Central Coast Region of California); Examine the data analysis equipment and processes used in wildlife sciences.
- apply the wildlife sciences concepts, techniques and protocols (including the Rapid Assessment Methodology) to local case studies to develop strategies for implementing community-based, collaborate efforts to preserve, protect and restore native species, ecosystems and landscape connectivity.
- demonstrate the ability to communicate with key stakeholders the relationship between wildlife protection and preservation, landscape connectivity and the public good with government and resource agencies, agriculture and industry, the public, nonprofits and others to enhance global, cultural, social and environmental well-being and participate in the development of a regional habitat conservation plan (local) and/or natural community and conservation plan (state).

1. Meet the AA/AS degree requirements.
2. Complete the course requirements listed for the Wildlife Science Technician Certificates of Achievement and Achievement-Advanced
3. Complete the following:
   - ESCI 56 Wildlife Corridor Technician: Plant Survey Techniques
   - ESCI 58 Wildlife Corridor Technician: Wildlife Tracking and Landscape Linkages for California

Complete a minimum of two (2) units from the following:
(Note: Wildlife Science Technician units completed for the Certificates do not count toward these units.)
   - ESCI 82 series ESCI 82, 82X, 82Y, 82Z
     Central Coast Wildlife Corridors: Coyote Valley series (1-4 units)
   - ESCI 87 series ESCI 87, 87X, 87Y, 87Z
     Central Coast Wildlife Corridors: Diablo Range series (1-4 units)
   - ESCI 90 Santa Clara County Field Studies: Tule Elk (1)
   - ESCI 92 Santa Clara County Field Studies: Raptors (1)
   - Major Wildlife Science Technician
   - GE General Education (31-42 units)
   - Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required ......................... 90 units

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**Film Production**

**A.A. Degree**

The Film Production AA Degree provides a foundation for students interested in pursuing a career in the film industry or a baccalaureate degree in Film/Television. Students are exposed to various facets of a professional film production, including directing, shooting, editing and screenwriting. To fulfill the requirements for this degree, students will complete all required courses in a particular area of production.

**Student Learning Outcomes - upon completion, students will be able to:**

- develop and write a production proposal, including a script, location scouting survey, production schedule and budget.
- operate film camera, sound and lighting equipment in a remote shoot.
- use and apply dramatic skills to cast and evaluate talent.
- use and apply principles of editing techniques and post production.
- develop a distribution plan for a finished film or video project.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

**Complete one (1) course from the following:**

- F/TV 2A History of Cinema (1895-1950) (4)
- F/TV 2AW History of Cinema (1895-1950) (4.5)
- F/TV 2B History of Cinema (1950-Present) (4)
- F/TV 2BW History of Cinema (1950-Present) (4.5)
- F/TV 2C Contemporary World Cinema (4)
- F/TV 2CW Contemporary World Cinema (4.5)

**Complete the following:**

- F/TV 1 Introduction to Film (4)
- F/TV 20 Basic Digital Film/Video Production (4)
- F/TV 22 16MM Film Production I (4)
- F/TV 50 Introduction to Film/Television Directing (4)
- F/TV 52A 16mm/35mm Film Production I (4)
- F/TV 53 Non-Linear Editing (4)
- F/TV 60A Screenwriting for Film and Video I (4)

**Complete a minimum of six (6) units from the following:**

- ARTS 53B Introduction to Visual Technology (3)
- F/TV 10 Introduction to Electronic Media (4)
- F/TV 41 Film Genres (variable topics) (4)
- F/TV 42 National Cinemas (4)
- F/TV 43 Film Artists (variable topics) (4)
- F/TV 45 History of Experimental Film/Video (4)
- F/TV 46 Cinema and the African-American (4)
- F/TV 51A Intermediate Digital Film and Video Production (4)
- F/TV 52B 16mm/35mm Film Production II (4)
- F/TV 55A Video Studio Production (4)
- F/TV 57A Non-Fiction Workshop I: The Documentary (4)
- F/TV 57B Non-Fiction Workshop II: The Documentary (4)
- F/TV 59 The Role of the Media Producer (4)
- F/TV 60B Screenwriting for Film and Video II (4)
- F/TV 60C Screenwriting for Film and Video III (4)
- F/TV 62 Lighting for Television and Film (4)
- F/TV 63A Location Recording and Sound Design (3)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>F/TV 64A</td>
<td>Advanced Screenwriting Workshop I</td>
<td>4</td>
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<tr>
<td>F/TV 64B</td>
<td>Advanced Screenwriting Workshop II</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 64C</td>
<td>Advanced Screenwriting Workshop III</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 65</td>
<td>Current Practices in the Film/Video Profession</td>
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<tr>
<td>F/TV 78</td>
<td>Special Topics in Film Studies</td>
<td>1-2</td>
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<tr>
<td>F/TV 80A</td>
<td>Theory and Technique of Acting for the Camera</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 80B</td>
<td>Theory and Technique of Advanced Acting for the Camera</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 85</td>
<td>Motion Graphics</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 92</td>
<td>Topics: Guest Artist/Industry Professional</td>
<td>0.5</td>
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<tr>
<td>F/TV 98G</td>
<td>Fiction Workshop (The Writer, Producer, Director)</td>
<td>3</td>
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<tr>
<td>F/TV 98H</td>
<td>Fiction Workshop (Technical Crew)</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 98J</td>
<td>Fiction Workshop (Editing/Post Production)</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 53B</td>
<td>Introduction to Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 2C</td>
<td>Contemporary World Cinema</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2CW</td>
<td>Contemporary World Cinema (4.5)</td>
<td>4.5</td>
</tr>
<tr>
<td>F/TV 22</td>
<td>16MM Film Production I</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 41</td>
<td>Film Genres (variable topics)</td>
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<tr>
<td>F/TV 42</td>
<td>National Cinemas</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 43</td>
<td>Film Artists (variable topics)</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 45</td>
<td>History of Experimental Film/Video</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 48</td>
<td>Cinema and the African-American</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 50</td>
<td>Introduction to Film/Television Directing</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 51A</td>
<td>Intermediate Digital Film and Video Production</td>
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</tr>
<tr>
<td>F/TV 52A</td>
<td>16mm/35mm Film Production II</td>
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</tr>
<tr>
<td>F/TV 52B</td>
<td>16mm/35mm Film Production II</td>
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<tr>
<td>F/TV 55A</td>
<td>Video Studio Production</td>
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</tr>
<tr>
<td>F/TV 57A</td>
<td>Non-Fiction Workshop I: The Documentary</td>
<td>4</td>
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<tr>
<td>F/TV 57B</td>
<td>Non-Fiction Workshop II: The Documentary</td>
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<tr>
<td>F/TV 59</td>
<td>The Role of the Media Producer</td>
<td>4</td>
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<tr>
<td>F/TV 62</td>
<td>Lighting for Television and Film</td>
<td>4</td>
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<tr>
<td>F/TV 63A</td>
<td>Location Recording and Sound Design</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 65</td>
<td>Current Practices in the Film/Video Profession</td>
<td>4</td>
</tr>
</tbody>
</table>

**Screenwriting A.A. Degree**

The Screenwriting AA Degree provides a foundation for students interested in pursuing a career in screenwriting for film or pursuing a baccalaureate degree in Film/Television. Students are exposed to the craft and business of screenwriting. In order to fulfill the major requirements, students take each course in the screenwriting series, courses in cinema studies and media theory, and basic production courses.

Student Learning Outcomes - upon completion, students will be able to:

- apply the principles of cinematic story, character, and theme to screenwriting.
- write both short and feature-length screenplays with good technique and craft.
- execute the step-by-step process of screenwriting from concept and idea to completed screenplay.
- apply all aspects of story and character to oral pitches.
- understand the business of screenwriting and how to best position themselves for success.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>F/TV 1</td>
<td>Introduction to Film</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2A</td>
<td>History of Cinema (1895-1950)</td>
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<td>F/TV 2B</td>
<td>History of Cinema (1950-Present)</td>
<td>4</td>
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<tr>
<td>F/TV 10</td>
<td>Introduction to Electronic Media</td>
<td>4</td>
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<tr>
<td>F/TV 20</td>
<td>Basic Digital Film/Video Production</td>
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<tr>
<td>F/TV 60A</td>
<td>Screenwriting for Film and Video I</td>
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<td>F/TV 60B</td>
<td>Screenwriting for Film and Video II</td>
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<tr>
<td>F/TV 60C</td>
<td>Screenwriting for Film and Video III</td>
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</tr>
<tr>
<td>F/TV 64A</td>
<td>Advanced Screenwriting Workshop I</td>
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<td>F/TV 64B</td>
<td>Advanced Screenwriting Workshop II</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 64C</td>
<td>Advanced Screenwriting Workshop III</td>
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</table>

Complete a minimum of four (4) units from the following:

- ARTS 53B Introduction to Visual Technology (3)
- F/TV 2C Contemporary World Cinema (4)
- F/TV 2CW Contemporary World Cinema (4.5)
- F/TV 22 16MM Film Production I (4)
- F/TV 41 Film Genres (variable topics) (4)
- F/TV 42 National Cinemas (4)
- F/TV 43 Film Artists (variable topics) (4)
- F/TV 45 History of Experimental Film/Video (4)
- F/TV 48 Cinema and the African-American (4)
- F/TV 50 Introduction to Film/Television Directing (4)
- F/TV 51A Intermediate Digital Film and Video Production (4)
- F/TV 52A 16mm/35mm Film Production I (4)
- F/TV 52B 16mm/35mm Film Production II (4)
- F/TV 55A Video Studio Production (4)
- F/TV 57A Non-Fiction Workshop I: The Documentary (4)
- F/TV 57B Non-Fiction Workshop II: The Documentary (4)
- F/TV 59 The Role of the Media Producer (4)
- F/TV 62 Lighting for Television and Film (4)
- F/TV 63A Location Recording and Sound Design (3)
- F/TV 65 Current Practices in the Film/Video Profession (4)

**Film/Television Production: Television Emphasis**

Certificate of Achievement

**Film/Television Production: Television Emphasis**

Certificate of Achievement

The Film/TV Production Certificate of Achievement provides a solid introduction in video production for students interested in pursuing a career in the TV/Video industry or pursuing...
a baccalaureate degree in Film/Television. Students are exposed to various facets of a professional video production, including directing, shooting, editing and screenwriting.

**Student Learning Outcomes - upon completion, students will be able to:**
- develop and write a production proposal, including targeting an audience, location scouting, production schedule, and budgeting.
- operate video camera, sound and lighting equipment in a remote shoot.
- apply dramatic skills to cast and evaluate talent.
- apply principles of editing techniques and post production.
- develop a distribution plan for a finished film/video project.

1. Meet the requirements for this certificate level.
2. Complete the following.

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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>F/TV 20</td>
<td>Basic Digital Film/Video Production</td>
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<td>Non-Linear Editing</td>
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<td>F/TV 55A</td>
<td>Video Studio Production</td>
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</tr>
<tr>
<td>F/TV 59A</td>
<td>The Role of the Media Producer</td>
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</tr>
<tr>
<td>F/TV 60A</td>
<td>Screenwriting for Film and Video I</td>
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<td><strong>Total Units Required</strong></td>
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**Film/Television Production: Television Emphasis**

**Certificate of Achievement-Advanced**

The Film/TV Production Certificate of Achievement-Advanced provides a more advanced introduction in video production for students interested in pursuing a career in the TV/Video industry or pursuing a baccalaureate degree in Film/Television. Students are exposed to various facets of a professional video production, including directing, shooting, editing and screenwriting.

**Student Learning Outcomes - upon completion, students will be able to:**
- develop and write a production proposal, including targeting an audience, location scouting, production schedule and budgeting.
- operate video camera, sound and lighting equipment in a remote shoot.
- apply dramatic skills to cast and evaluate talent.
- apply principles of editing techniques and post production.
- use and apply principles of audio recording and post production.
- develop a distribution plan for a finished film/video project.

1. Meet the requirements for this certificate level.
2. Complete the course requirements listed for the Certificate of Achievement and the Certificate of Achievement-Advanced.
3. Complete the following.

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>F/TV 10</td>
<td>Introduction to Electronic Media</td>
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</tr>
<tr>
<td>F/TV 50</td>
<td>Introduction to Film/Television Directing</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 51A</td>
<td>Intermediate Digital Film/Video Production</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 63A</td>
<td>Location Recording and Sound Design</td>
<td>3</td>
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<tr>
<td><strong>Total Units Required</strong></td>
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</table>

**Film/Television Production: Television Emphasis**

**A.A. Degree**

The Film/TV Production: TV Emphasis AA Degree provides a foundation in video production for students interested in pursuing a career in the TV/Video industry or pursuing a baccalaureate degree in Film/Television. Students are exposed to various facets of a professional video production, including directing, shooting, editing and screenwriting. To fulfill the requirements for this major, students complete the required set of courses in their particular area of interest within production.

**Student Learning Outcomes - upon completion, students will be able to:**
- develop and write a production proposal, including targeting an audience, location scouting, production schedule and budgeting.
- operate video camera, sound and lighting equipment in a remote shoot.
- apply dramatic skills to cast and evaluate talent.
- apply principles of editing techniques and post production.
- develop a distribution plan for a finished film/video project.

1. Meet the AA/AS degree requirements.
2. Complete the course requirements listed for the Certificate of Achievement and the Certificate of Achievement-Advanced.
3. Complete the following.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>F/TV 2A</td>
<td>History of Cinema (1895-1950)</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2AW</td>
<td>History of Cinema (1895-1950)</td>
<td>4.5</td>
</tr>
<tr>
<td>F/TV 2B</td>
<td>History of Cinema (1950-Present)</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2BW</td>
<td>History of Cinema (1950-Present)</td>
<td>4.5</td>
</tr>
<tr>
<td>F/TV 2C</td>
<td>Contemporary World Cinema</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2CW</td>
<td>Contemporary World Cinema</td>
<td>4.5</td>
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<tr>
<td><strong>Total Units Required</strong></td>
<td></td>
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Complete a minimum of six (6) units from the following which do not duplicate courses taken above:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 53B</td>
<td>Introduction to Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 1</td>
<td>Introduction to Film</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2A</td>
<td>History of Cinema (1895-1950)</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2AW</td>
<td>History of Cinema (1895-1950)</td>
<td>4.5</td>
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<tr>
<td>F/TV 2B</td>
<td>History of Cinema (1950-Present)</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 2BW</td>
<td>History of Cinema (1950-Present)</td>
<td>4.5</td>
</tr>
<tr>
<td>F/TV 22</td>
<td>16MM Film Production I</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 41</td>
<td>Film Genres (variable topics)</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 42</td>
<td>National Cinemas</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 43</td>
<td>Film Artists (variable topics)</td>
<td>4</td>
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<tr>
<td>F/TV 45</td>
<td>History of Experimental Film/Video</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 48</td>
<td>Cinema and the African-American</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 52A</td>
<td>16mm/35mm Film Production I</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 52B</td>
<td>16mm/35mm Film Production II</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 57A</td>
<td>Non-Fiction Workshop I: The Documentary</td>
<td>4</td>
</tr>
<tr>
<td>F/TV 58</td>
<td>Film/Television Production Workshop</td>
<td>0.5-8</td>
</tr>
<tr>
<td>F/TV 60B</td>
<td>Screenwriting for Film and Video II</td>
<td>4</td>
</tr>
</tbody>
</table>
F/TV 60C Screenwriting for Film and Video III (4)
F/TV 62 Lighting for Television and Film (4)
F/TV 63B Audio Post Production (3)
F/TV 64A Advanced Screenwriting Workshop I (4)
F/TV 64B Advanced Screenwriting Workshop II (4)
F/TV 64C Advanced Screenwriting Workshop III (4)
F/TV 65 Current Practices in the Film/Video Profession (4)
F/TV 78 series F/TV 78W, 78X Special Topics in Film Studies (1-2)
F/TV 80A Theory and Technique of Acting for the Camera (3)
F/TV 80B Theory and Technique of Advanced Acting for the Camera (3)
F/TV 85 Motion Graphics (3)
F/TV 92 Topics: Guest Artist/Industry Professional (0.5)
F/TV 98G Fiction Workshop (The Writer, Producer, Director) (3)
F/TV 98H Fiction Workshop (Technical Crew) (3)
F/TV 98J Fiction Workshop (Editing/Post Production) (3)
HUMI 1 Creative Minds (4)
HUMI 2 But Is It Art? Questions and Criticism (4)
HUMI 15 Discussion on the Arts (4)
PHTG 1 Basic Photography (3)
PHTG 2 Intermediate Photography (3)
PHTG 3 Advanced Photography (3)

Global Studies

Skills Certificate

Skills Certificates are issued by the individual departments and are not notated on official college transcripts. Please contact the department directly for assistance and to apply for Skills Certificates.

The Global Studies Skills Certificate is designed to enable students to meet the demands of living and working in a global society. This certificate provides an interdisciplinary approach to understanding the interdependence and interconnectedness of people from around the globe. By taking a variety of courses with a common, global focus, students gain the analytical skills to discuss political, economic, and cultural elements of our global society from several perspectives. Students also gain the knowledge and skills necessary to work more effectively with people from a variety of backgrounds and cultures.

Student Learning Outcomes - upon completion, students will be able to:

• integrate information about the environment, cultures, histories, politics, arts, and economics of people around the world and explain their interdependence and interconnectedness.

Global Studies

Certificate of Achievement-Advanced A.A. Degree

The Global Studies Certificate of Achievement-Advanced and A.A. major is an interdisciplinary program that prepares students to be well-versed in world history, global issues and perspectives, geography, and cultural competence as well as proficient in a foreign language. Elective options direct students to a course of study focused on world history, international business, globalization issues, language and culture, and the arts and humanities in the global environment. Students can take electives within one area of study, or mix electives from the various areas. The program prepares students for careers as citizens of the world and to navigate and communicate in a global environment.

Student Learning Outcomes - upon completion, students will be able to:

• integrate information about the environment, cultures, histories, politics, arts, and economics of people around the world and explain their interdependence and interconnectedness.

• demonstrate cultural competence through the ability to interact effectively in international and multicultural settings based on an integrated understanding of global issues and perspectives.

• demonstrate proficiency in a foreign language.

Certificate of Achievement-Advanced

1. Meet the requirements for this certificate level. (Page 48)
2. Complete the following.

Complete one (1) course from:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3A</td>
<td>World History (4)</td>
</tr>
<tr>
<td>HIST 3B</td>
<td>World History (4)</td>
</tr>
<tr>
<td>HIST 3C</td>
<td>World History (4)</td>
</tr>
</tbody>
</table>

Complete one (1) course from:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology (4)</td>
</tr>
<tr>
<td>ECON 1</td>
<td>Principles of Macroeconomics (4)</td>
</tr>
<tr>
<td>GEO 10</td>
<td>World Regional Geography (4)</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 1</td>
<td>Introduction to Environmental Studies (4)</td>
</tr>
<tr>
<td>ICS/SPCH 7</td>
<td>Intercultural Communication (4)</td>
</tr>
<tr>
<td>INTL 5</td>
<td>Global Issues and Perspectives (4)</td>
</tr>
<tr>
<td>LIB 1</td>
<td>Library Research Skills (1)</td>
</tr>
</tbody>
</table>

Total Units Required .............................................21

Global Studies

Certificate of Achievement-Advanced A.A. Degree

The Global Studies Certificate of Achievement-Advanced and A.A. major is an interdisciplinary program that prepares students to be well-versed in world history, global issues and perspectives, geography, and cultural competence as well as proficient in a foreign language. Elective options direct students to a course of study focused on world history, international business, globalization issues, language and culture, and the arts and humanities in the global environment. Students can take electives within one area of study, or mix electives from the various areas. The program prepares students for careers as citizens of the world and to navigate and communicate in a global environment.

Student Learning Outcomes - upon completion, students will be able to:

• integrate information about the environment, cultures, histories, politics, arts, and economics of people around the world and explain their interdependence and interconnectedness.

• demonstrate cultural competence through the ability to interact effectively in international and multicultural settings based on an integrated understanding of global issues and perspectives.

• demonstrate proficiency in a foreign language.

Certificate of Achievement-Advanced

1. Meet the requirements for this certificate level. (Page 48)
2. Complete the skills certificate course requirements. 21
3. Complete the following.

One year (3 quarters) of college-level world language  

World Languages offered:

<table>
<thead>
<tr>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantonese</td>
</tr>
<tr>
<td>French</td>
</tr>
<tr>
<td>German</td>
</tr>
<tr>
<td>Hindi</td>
</tr>
<tr>
<td>Italian</td>
</tr>
<tr>
<td>Japanese</td>
</tr>
<tr>
<td>Korean</td>
</tr>
<tr>
<td>Mandarin</td>
</tr>
<tr>
<td>Persian</td>
</tr>
<tr>
<td>Russian</td>
</tr>
<tr>
<td>Spanish</td>
</tr>
<tr>
<td>Vietnamese</td>
</tr>
</tbody>
</table>

Total Units Required .............................................36
A.A. Degree

1. Meet the A.A./A.S. degree requirements. (Page 48)
2. Complete the following.

**Complete one (1) course from:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3A</td>
<td>World History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 3B</td>
<td>World History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 3C</td>
<td>World History</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**Complete the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology</td>
<td>(4)</td>
</tr>
<tr>
<td>ECON 1</td>
<td>Principles of Macroeconomics</td>
<td>(4)</td>
</tr>
<tr>
<td>ES 1</td>
<td>Introduction to Environmental Studies</td>
<td>(4)</td>
</tr>
<tr>
<td>GEO 10</td>
<td>World Regional Geography</td>
<td>(4)</td>
</tr>
<tr>
<td>ICS/SPCH 7</td>
<td>Intercultural Communication</td>
<td>(4)</td>
</tr>
<tr>
<td>INTL 5</td>
<td>Global Issues and Perspectives</td>
<td>(4)</td>
</tr>
<tr>
<td>LIB 1</td>
<td>Library Research Skills</td>
<td>(1)</td>
</tr>
</tbody>
</table>

**Language Requirement**

0-15

One year (3 quarters) of college-level world language or three (3) years of high school foreign language or the equivalent

**Complete 24 units from the courses listed below.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 2A</td>
<td>History of Art (Europe from Prehistory through Early Christianity)</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2B</td>
<td>History of Art (Europe During Middle Ages/Renaissance)</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2C</td>
<td>History of Art (Europe from the Baroque Period through Impressionism)</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2D</td>
<td>History of Art (Europe and the United States/Post-Impressionism)</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2G</td>
<td>History of Art: Arts of Asia</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2H</td>
<td>History of Art: Native Arts of Mesoamerica and South America</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2J</td>
<td>History of Art: Indigenous Arts of the World</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2K</td>
<td>History of Art: Visual Arts of Islam</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 2L</td>
<td>History of Art: Visual Arts of Africa</td>
<td>(4)</td>
</tr>
<tr>
<td>ARTS 3TC</td>
<td>Women and Art</td>
<td>(4)</td>
</tr>
<tr>
<td>F/TV 2A</td>
<td>History of Cinema (1895-1950)</td>
<td>(4)</td>
</tr>
<tr>
<td>F/TV 2B</td>
<td>History of Cinema (1950-Present)</td>
<td>(4)</td>
</tr>
<tr>
<td>F/TV 42</td>
<td>National Cinemas</td>
<td>(4)</td>
</tr>
<tr>
<td>HUMI 9</td>
<td>Introduction to Comparative Religion</td>
<td>(4)</td>
</tr>
<tr>
<td>HUMI 10</td>
<td>Introduction to Western Religions</td>
<td>(4)</td>
</tr>
<tr>
<td>HUMI 14A</td>
<td>Indian Philosophy</td>
<td>(4)</td>
</tr>
<tr>
<td>HUMI 14B</td>
<td>Chinese Philosophy</td>
<td>(4)</td>
</tr>
<tr>
<td>HUMI 14C</td>
<td>Japanese Philosophy</td>
<td>(4)</td>
</tr>
<tr>
<td>INTL 11</td>
<td>Vietnamese Literature</td>
<td>(4)</td>
</tr>
<tr>
<td>INTL 13</td>
<td>Introduction to Korean Popular Culture</td>
<td>(4)</td>
</tr>
<tr>
<td>INTL 15</td>
<td>Introduction to the Arab World</td>
<td>(4)</td>
</tr>
<tr>
<td>MUSI 1C</td>
<td>Introduction to Music: World Music in America</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**Global Environment**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 6</td>
<td>Introduction to Environmental Law</td>
<td>(4)</td>
</tr>
<tr>
<td>ESCI 19</td>
<td>Environmental Biology</td>
<td>(5)</td>
</tr>
<tr>
<td>ESCI 30</td>
<td>Conservation Biology</td>
<td>(5)</td>
</tr>
<tr>
<td>GEO 1</td>
<td>Physical Geography</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**Globalization Issues**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 21</td>
<td>Business and Society</td>
<td>(5)</td>
</tr>
<tr>
<td>CIS 2</td>
<td>Computers and Society</td>
<td>(4)</td>
</tr>
<tr>
<td>POLI 3</td>
<td>International Relations</td>
<td>(4)</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**International Business**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 21</td>
<td>Business and Society</td>
<td>(5)</td>
</tr>
<tr>
<td>BUS 56</td>
<td>Human Relations in Business</td>
<td>(5)</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business Management</td>
<td>(5)</td>
</tr>
<tr>
<td>BUS 70</td>
<td>Principles of E-Business</td>
<td>(5)</td>
</tr>
<tr>
<td>BUS 87</td>
<td>Introduction to Selling</td>
<td>(4)</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Advertising</td>
<td>(5)</td>
</tr>
<tr>
<td>BUS 90</td>
<td>Principles of Marketing</td>
<td>(5)</td>
</tr>
<tr>
<td>ECON 2</td>
<td>Microeconomics</td>
<td>(4)</td>
</tr>
<tr>
<td>POLI 3</td>
<td>International Relations</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**World History**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 4</td>
<td>World Prehistory</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 3A</td>
<td>World History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 3B</td>
<td>World History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 3C</td>
<td>World History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 4A</td>
<td>History of Western Civilization</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 4B</td>
<td>History of Western Civilization</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 4C</td>
<td>History of Western Civilization</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 4D</td>
<td>History of Western Civilization</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 7A</td>
<td>Colonial Latin American History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 7B</td>
<td>Modern Latin American History</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 16A</td>
<td>History of Africa to 1800</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 16B</td>
<td>History of Africa from 1800 to Present</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 19A</td>
<td>History of Asian Civilization</td>
<td>(4)</td>
</tr>
<tr>
<td>HIST 19B</td>
<td>History of Asian Civilization</td>
<td>(4)</td>
</tr>
<tr>
<td>ICS 37</td>
<td>Ancient People of Mesoamerica</td>
<td>(4)</td>
</tr>
<tr>
<td>INTL 30</td>
<td>Introduction to Islamic Studies</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**World Languages**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 6</td>
<td>Linguistic Anthropology</td>
<td>(4)</td>
</tr>
<tr>
<td>ELIT 44</td>
<td>International Literature (Fiction)</td>
<td>(4)</td>
</tr>
<tr>
<td>LING 1</td>
<td>Introduction to Linguistics</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**World Languages offered:**

- Cantonese, French, German, Hindi, Italian, Japanese, Korean, Mandarin, Persian, Russian, Spanish, Vietnamese

**Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE</td>
<td>General Education (31-42 units)</td>
<td>(5)</td>
</tr>
<tr>
<td>Electives</td>
<td>Elective courses req’d when major units plus GE units total is less than 90</td>
<td>(5-15)</td>
</tr>
</tbody>
</table>

**Total Units Required**

89 units
Graphic and Interactive Design

The Graphic Design program emphasizes the elements and principles of design in combination with the use of the computer as a tool to produce graphic design projects. Focus is placed on the creative integration and selection of type styles and images as they relate to the printed page, film/video output, Web-based design, and multimedia applications. The Graphic Design certificate and degree programs are designed to prepare students for the workforce.

Graphic Design

Certificate of Achievement

Student Learning Outcomes - upon completion, students will be able to:

• demonstrate awareness of the computer as an effective and important mode of visual communication used by artists and designers today.
• demonstrate the creative potential of art and design software.
• analyze and interpret the elements and principles of graphic design as applied to the practice of visual communication and current graphic production techniques.
• demonstrate an understanding of the design process.
• analyze styles in typographic design, type selection, and type specification in relation to new computer technology and the World Wide Web.
• demonstrate an understanding of the range of business practices currently used by artists and designers in the visual communications industry.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 4A</td>
<td>Beginning Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 4B</td>
<td>Intermediate Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 8</td>
<td>Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 12</td>
<td>Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 53A</td>
<td>Introduction to Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 55A</td>
<td>Graphic Design - Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 18

Recommended

ARTS 4D  Representational Drawing (3)

Graphic Design

Certificate of Achievement - Advanced

Student Learning Outcomes - upon completion, students will be able to:

• demonstrate awareness of the computer as an effective and important mode of visual communication used by artists and designers today.
• demonstrate the creative potential of art and design software.
• analyze and interpret the elements and principles of interactive design as applied to the practice of visual communication and current design production techniques.
• demonstrate an understanding of the design process.
• analyze styles in typographic design, type selection, and type specification in relation to new computer technology and the World Wide Web.
• demonstrate an understanding of the range of business practices currently used by artists and designers in the visual communications industry.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 53B</td>
<td>Introduction to Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 55B</td>
<td>Graphic Design - Communication</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 55C</td>
<td>Graphic Design - Communication: Production Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 56</td>
<td>Computer-Aided Graphic Design: Electronic Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 57</td>
<td>Graphic Design - Typography</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 63</td>
<td>Business Practices for Graphic Designers</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 65</td>
<td>Graphic Design for the World Wide Web</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 86</td>
<td>Electronic Illustration Techniques</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units Required .......................... 42

Interactive Design

The Interactive Design program emphasizes the elements and principles of design in combination with the use of the computer as a tool to produce interactive design projects, including motion graphics, animation, and film. Focus is placed on the creative integration and selection of type styles and images as they relate to the printed page, film/video output, Web-based design, multimedia applications. The Interactive Design certificate and degree are designed to prepare students for the growing workforce in interactive media.

Student Learning Outcomes - upon completion, students will be able to:

• demonstrate awareness of the computer as an effective and important mode of visual communication used by artists and designers today.
• demonstrate the creative potential of art and design software.
• analyze and interpret the elements and principles of interactive design as applied to the practice of visual communication and current design production techniques.
• demonstrate an understanding of the design process.
• analyze styles in typographic design, type selection, and type specification in relation to new computer technology and the World Wide Web.

Meet the A.A./A.S. degree requirements.

Major

Complete the course requirements for the Graphic Design Cert. of Achievement and Cert. of Achievement-Advanced 42 units

GE

General Education (31-42 units)

Electives

Elective courses required when major units plus GE units total is less than 90

Total Units Required .................................. 90
• demonstrate an understanding of the range of business practices currently used by artists and designers in the visual communications industry.

**Interactive Design**

**Certificate of Achievement-Advanced**

1. Meet the requirements for this certificate level.
2. Complete the Graphic Design Certificate of Achievement course requirements. 18
3. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 53B</td>
<td>Introduction to Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 55B</td>
<td>Graphic Design - Communication</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 55C</td>
<td>Graphic Design - Communication: Production Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 57</td>
<td>Graphic Design - Typography</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 63</td>
<td>Business Practices for Graphic Designers</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 65</td>
<td>Graphic Design for the World Wide Web</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 85</td>
<td>Motion Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete a minimum of six (6) units from the following: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 86</td>
<td>Electronic Illustration Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CIS 89A</td>
<td>World Wide Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>MUSI 51</td>
<td>Introduction to Electronic Music</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 1</td>
<td>Basic Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units Required** ........................................45

**Interactive Design**

**A.A. Degree**

Meet the A.A./A.S. degree requirements.

**Major**

Complete the course requirements for the Graphic Design Cert. of Achievement and the Interactive Design Certificate of Achievement-Advanced 45 units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 93*</td>
<td>Computer Literacy</td>
<td>4.5</td>
</tr>
<tr>
<td>CIS 99</td>
<td>Office Software Applications</td>
<td>4.5</td>
</tr>
<tr>
<td>HTEC 60A</td>
<td>Basic Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HTEC 72</td>
<td>Medical Office Financial Procedures</td>
<td>1.5</td>
</tr>
<tr>
<td>HTEC 73</td>
<td>Medical Law and Ethics</td>
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</tr>
<tr>
<td>HTEC 96E</td>
<td>Business Office Clerk Externship</td>
<td>4</td>
</tr>
<tr>
<td>HTEC 101D</td>
<td>Skill Bldg./Medical Office Financial Procedures</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units Required, Incl. Prerequisite** ...21

* May be substituted with another CIS course of equal or greater unit value.

**Health Technologies**

**Business Office Clerk**

**Certificate of Achievement**

Students in the Business Office Clerk Certificate of Achievement program learn basic medical coding, health insurance claims billing, collections and appeals processing, medical records management, and keyboarding. Students also participate in administrative skills externships in local clinical sites as part of the program.

**Student Learning Outcomes - upon completion, students will:**

• be eligible to be employed in a medical facility, hospital, clinic or doctor’s office.
• be prepared to pass the National Certified Coding Associate Examination.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTEC 50</td>
<td>Introduction to Health Technologies</td>
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</tr>
<tr>
<td>HTEC 60A</td>
<td>Basic Medical Terminology</td>
<td>3</td>
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<tr>
<td>HTEC 60G</td>
<td>Advanced Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>HTEC 60H</td>
<td>Advanced Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>HTEC 61</td>
<td>Medical Communications</td>
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<tr>
<td>HTEC 72</td>
<td>Medical Office Financial Procedures</td>
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<tr>
<td>HTEC 73</td>
<td>Medical Law and Ethics</td>
<td>1.5</td>
</tr>
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<td>HTEC 76A</td>
<td>Advanced Medical Coding I</td>
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<tr>
<td>HTEC 76B</td>
<td>Advanced Medical Coding II</td>
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<tr>
<td>HTEC 96F</td>
<td>Coding Externship</td>
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</tr>
<tr>
<td>HTEC 101C</td>
<td>Skill Building in Medical Communications and Transcription</td>
<td>1</td>
</tr>
<tr>
<td>HTEC 101D</td>
<td>Skill Bldg./Medical Office Financial Procedures</td>
<td>1</td>
</tr>
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**Total Units Required, Incl. Prerequisite** ........................................21.5

**Recommended**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>CIS 93</td>
<td>Computer Literacy</td>
<td>4.5</td>
</tr>
<tr>
<td>CIS 99</td>
<td>Office Software Applications</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Lab Assisting
Certificate of Achievement
The Health Technologies Department developed this certificate of achievement program to train students in the clinical skills of performing venipunctures, setting up lab tests, processing specimens for testing in clinical labs, performing electrocardiograms and recognizing arrhythmias. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:
• be eligible to be employed in a medical facility, hospital, clinic or doctor’s office.
• be prepared to pass the National Phlebotomy and EKG Certification Examinations.

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
HTEC 50 Introduction to Health Technologies 1

Student must present current American Red Cross or American Heart Association First Aid and Adult CPR Pro card to receive the certificate.

Requirements
HTEC 60A Basic Medical Terminology 3
HTEC 60G Advanced Medical Terminology 2
HTEC 60H Advanced Medical Terminology 2
HTEC 90G Basic Patient Care 1.5
HTEC 64A Basic Clinical Lab Procedures 1.5
HTEC 64B Advanced Clinical Lab Procedures 1.5
HTEC 73 Medical Law and Ethics 1.5
HTEC 91 Medical Office Diagnostic Tests 1.5
HTEC 95B Phlebotomy Technician I Externship 3
HTEC 96H EKG Externship 4
HTEC 101A Skill Building in Clinical Lab Procedures 1
HTEC 101B Skill Building in Basic Patient Care 1
HTEC 101F Skill Building in Medical Office Diagnostic Tests 1

Total Units Required, Incl. Prerequisites ...................................25.5

Recommended
CIS 93 Computer Literacy (4.5)
CIS 99 Office Software Applications (4.5)
HLTH 57A First Aid in the Workplace, Community and Wilderness (1)
HLTH 57E CPR & Automated External Defibrillation (0.5)

Medical Reception
Certificate of Achievement
The Health Technologies Department developed this certificate of achievement program to train students in the administrative skills of appointment scheduling, billing, insurance and coding, and medical records management. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:
• be eligible to be employed in a medical facility, hospital, clinic or doctor’s office.

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
HTEC 50 Introduction to Health Technologies 1

Student must present current American Red Cross or American Heart Association First Aid and Adult CPR Pro card to receive the certificate.

Requirements
CIS 93* Computer Literacy 4.5
CIS 99 Office Software Applications 4.5
HTEC 60A Basic Medical Terminology 3
HTEC 73 Medical Law and Ethics 1.5
HTEC 96C Medical File Clerk Externship 4

Total Units Required, Incl. Prerequisite...........................................18.5

* May be substituted with another CIS course of equal or greater unit value.

Medical File Clerk
Certificate of Achievement
The Health Technologies Department developed this certificate of achievement program to train students in the administrative skills of answering phones, keyboarding and filing medical reports. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:
• be eligible to be employed in a medical facility, hospital, clinic or doctor’s office.

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
HTEC 50 Introduction to Health Technologies 1

Student must present current American Red Cross or American Heart Association First Aid and Adult CPR Pro card to receive the certificate.

Requirements
CIS 93* Computer Literacy 4.5
HTEC 60A Basic Medical Terminology 3
HTEC 61 Medical Communications 1.5
HTEC 68 Medical Reception Externship 2
HTEC 71 Medical Office Reception 1
HTEC 72 Medical Office Financial Procedures 1.5
HTEC 73 Medical Law and Ethics 1.5
HTEC 75 Medical Office Management 1.5
HTEC 101C Skill Building in Medical Communications and Transcription 1
HTEC 101D Skill Bldg./Medical Office Financial Procedures 1

Total Units Required, Incl. Prerequisites .....................................19.5

* May be substituted with another CIS course of equal or greater unit value.
Recommended
CIS 99 Office Software Applications (4.5)
HLTH 57A First Aid in the Workplace, Community and Wilderness (1)
HLTH 57E CPR & Automated External Defibrillation (0.5)

Medical Records Clerk
Certificate of Achievement
The Health Technologies Department developed this certificate of achievement program to train students in the administrative skills of answering phones, providing customer service, managing medical records, and keyboarding. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:
1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisite/Corequisite
HTEC 50 Introduction to Health Technologies 1

Requirements
CIS 93* Computer Literacy 4.5
CIS 99 Office Software Applications 4.5
HTEC 60A Basic Medical Terminology 3
HTEC 73 Medical Law and Ethics 1.5
HTEC 96D Medical Records Clerk Externship 4

Total Units Required, Incl. Prerequisite ..........................19.5

* May be substituted with another CIS course of equal or greater unit value.

Medical Transcription
Certificate of Achievement
The Health Technologies Department developed this certificate of achievement program to train students in the administrative skills of transcribing medical dictation that details a patient’s health care during an illness or after an injury, and editing phrase recognition transcription. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:
1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
HTEC 50 Introduction to Health Technologies 1

Requirements
HTEC 60A Basic Medical Terminology 3
HTEC 60G Advanced Medical Terminology 2
HTEC 60H Advanced Medical Terminology 2
HTEC 61 Medical Communications 1.5
HTEC 73 Medical Law and Ethics 1.5
HTEC 74** Medical Transcription with Advanced Terminology (1.5) 4.5
HTEC 96G Medical Transcription Externship 4

Total Units Required, Incl. Prerequisite ..........................25.5

* BIOL 40A,B,C series may be substituted for the BIOL 54G, H, I, J series.
** Students need to complete a total of 4.5 units in Medical Transcription skills. For the 2013-14 year, please check with the department for courses that may satisfy this requirement.

Recommended
CIS 93 Computer Literacy (4.5)
CIS 99 Office Software Applications (4.5)
HTEC 101C Skill Building in Medical Communications and Transcription (1)

Phlebotomy Technician I
Certificate of Achievement
The Health Technologies Department developed this certificate of achievement program to train students in the clinical skills of performing venipunctures, setting up lab tests, and processing specimens for testing in clinical labs. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:
1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
CIS 93* Computer Literacy 4.5
HTEC 50 Introduction to Health Technologies 1
HLTH 57A First Aid in the Workplace, Community and Wilderness 1
HLTH 57E CPR & Automated External Defibrillation 0.5

Student must present current American Red Cross or American Heart Association First Aid and Adult CPR Pro card to receive the certificate.

* May be substituted with another CIS course of equal or greater unit value.

Requirements
HTEC 60A Basic Medical Terminology 3
HTEC 64A Basic Clinical Lab Procedures 1.5
HTEC 64B Advanced Clinical Lab Procedures 1.5
HTEC 73 Medical Law and Ethics 1.5
HTEC 95B Phlebotomy Externship 3
HTEC 101A Skill Building in Clinical Lab Procedures 1

Total Units Required, Incl. Prerequisites ..........................18.5
The Phlebotomy Technician I program has been approved by the California Department of Public Health-Laboratory Field Services.

Recommended
CIS 99 Office Software Applications (4.5)

**Medical Assisting**

**Certificate of Achievement-Advanced**

**A.A. Degree**
The Health Technologies Department developed the Medical Assisting Certificate of Achievement-Advanced and A.A. degree programs to train students in the fundamental clinical skills of reading vital signs, assisting with minor surgery, performing routine lab procedures, administering medication, and the administrative skills of medical coding and medical records management. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:

- be prepared to pass the State Medical Assisting Certification Examination.

**Certificate of Achievement-Advanced**

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisites/Corequisites
HTEC 50 Introduction to Health Technologies 1

Student must present current American Red Cross or American Heart Association First Aid and Adult CPR Pro card to receive the certificate.

Requirements
ACCT 1A Financial Accounting I 5
BIOL 54G* Applied Human Anatomy and Physiology 1.5
BIOL 54H* Applied Human Anatomy and Physiology 1.5
BIOL 54I* Applied Human Anatomy and Physiology 1.5
BIOL 54J* Applied Human Anatomy and Physiology 1.5
CIS 93** Computer Literacy 4.5
HTEC 60A Basic Medical Terminology 3
HTEC 60G Advanced Medical Terminology 2
HTEC 60H Advanced Medical Terminology 2
HTEC 61 Medical Communications 1.5
HTEC 64A Basic Clinical Lab Procedures 1.5
HTEC 64B Advanced Clinical Lab Procedures 1.5
HTEC 68 Medical Reception Externship 2
HTEC 71 Medical Office Reception 1
HTEC 72 Medical Financial Procedures 1.5
HTEC 73 Medical Law and Ethics 1.5
HTEC 74 Medical Transcription with Advanced Terminology 1.5
HTEC 75 Medical Office Management 1.5
HTEC 90G Basic Patient Care 1.5
HTEC 90H Medical Office Sterile Techniques 1.5
HTEC 91 Medical Office Diagnostic Tests 1.5
HTEC 93 Pharmacology for Medical Assistants 1.5
HTEC 94 Administration of Medications 1
HTEC 95A Medical Assisting Externship 3
HTEC 96A Medical Assisting Externship 4
HTEC 110 Health Technologies Employment Preparation 1.5

Total Units Required, Incl. Prerequisites ..........................52.5

* BIOL 40A,B,C series may be substituted for the BIOL 54G, H, I, J series.
** May be substituted with another CIS course of equal or greater unit value.

Recommended
CIS 99 Office Software Applications (4.5)
HTEC 101A-F Skill Building Labs (1 unit each)
HLTH 57A First Aid in the Workplace, Community and Wilderness (1)
HLTH 57E CPR & Automated External Defibrillation (0.5)

**A.A. Degree**
Meet the A.A./A.S. degree requirements.
Student must present current American Red Cross or American Heart Association First Aid and Adult CPR Pro card for the degree.

Major Complete the course requirements for the Cert. of Achievement-Advanced 52.5 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required .............................. 90 units

Recommended
PSYC 1^ General Psychology (4)
SOC 1^ Introduction to Sociology (4)

^Any Psychology or Sociology course will be acceptable. Units may apply toward GE requirement.

**Medical Secretary**

**Certificate of Achievement-Advanced**
The Health Technologies Department developed this certificate of achievement-advanced program to train students in the administrative skills of medical transcription, billing, insurance, and coding, and medical records management. Students also participate in administrative skills externships in local clinical sites as part of the program.

Student Learning Outcomes - upon completion, students will:

- be eligible to be employed in a medical facility, hospital, clinic or doctor’s office.

1. Meet the requirements for this certificate level.
2. Complete the following.

Prerequisite/Corequisite
HTEC 50 Introduction to Health Technologies 1

Requirements
ACCT 1A Financial Accounting I 5
BIOL 54G* Applied Human Anatomy and Physiology 1.5
BIOL 54H* Applied Human Anatomy and Physiology 1.5
BIOL 54I* Applied Human Anatomy and Physiology 1.5

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BIOL 54J* Applied Human Anatomy and Physiology 1.5
CIS 93** Computer Literacy 4.5
HTEC 60A Basic Medical Terminology 3
HTEC 60G Advanced Medical Terminology 2
HTEC 60H Advanced Medical Terminology 2
HTEC 61 Medical Communications 1.5
HTEC 68 Medical Reception Externship 2
HTEC 71 Medical Office Reception 1
HTEC 72 Medical Office Financial Procedures 1.5
HTEC 73 Medical Law and Ethics 1.5
HTEC 74 Medical Transcription with Advanced Terminology 1.5
HTEC 75 Medical Office Management 1.5
HTEC 96B Medical Secretary Externship 4
HTEC 101D Skill Bldg./Medical Office Financial Procedures 1

Skill Building in Medical Communications requirement 2
Complete HTEC 101C (1 unit) plus one additional skill building course. For the 2013-14 year, please check with the department for courses that may satisfy this requirement.

Total Units Required, Incl. Prerequisite ..................................................41

* BIOL 40A,B,C series may be substituted for the BIOL 54G, H, I, J series.
** May be substituted with another CIS course of equal or greater unit value.

Recommended
CIS 99 Office Software Applications (4.5)

History

Associate in Arts in History for Transfer A.A.-T. Degree
The History major consists of courses appropriate for an Associate in Arts in History for Transfer degree, which provides a foundational understanding of the discipline, a breadth of coursework in the discipline, and preparation for transfer to any CSU that accepts the Transfer Model Curriculum (TMC). Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcomes - upon completion students will be able to:
- demonstrate and apply historical knowledge to support defensible statements of meaning and evaluation about a time period’s developments.
- use secondary and primary sources to construct historical analyses of the human condition within the context of various cultures, civilizations and time periods.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

HIST 17A History of the United States to Early National Era 4
HIST 17B History of the United States from 1800 to 1900 4
HIST 17C History of the United States from 1900 to the Present 4

Complete either the World History series or the History of Western Civilization series: 12-16
HIST 3A World History (4)
HIST 3B World History (4)
HIST 3C World History (4)
or
HIST 4A History of Western Civilization (4)
HIST 4B History of Western Civilization (4)
HIST 4C History of Western Civilization (4)
HIST 4D History of Western Civilization (4)

Complete one (1) course from the following: 4
HIST 7A Colonial Latin American History (4)
HIST 7B Modern Latin American History (4)
HIST 16A History of Africa to 1800 (4)
HIST 16B History of Africa from 1800 to Present (4)
HIST 19A History of Asian Civilization: China and Japan (through 18th Century) (4)
HIST 19B History of Asian Civilization: China and Japan (19th - 21st Centuries) (4)

Complete one (1) course from the following: 4
HIST 2 Introduction to California Studies (4)
HIST 9 Women in American History (4)
HIST 10 History of California (4)
HIST 18A African American History Before 1865 (4)
HIST 18B African American History Since 1865 (4)
HIST 28 Social Environmental History (4)

Major History for Transfer 32-36 units
Transfer GE CSU GE or IGETC for CSU pattern (47-61)
Electives CSU-transferable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required ..........................90 units

Intercultural Studies

Skills Certificate
Skills Certificates are issued by the individual departments and are not notated on official college transcripts. Please contact the department directly for assistance and to apply for Skills Certificates.

Students pursuing the Intercultural Studies Skills Certificate gain the knowledge and skills necessary for increasing cultural sensitivity, cultural competence, and social equity. This certificate is designed for anyone wanting to interact more effectively with people from a variety of cultural and
linguistic backgrounds. The goals of the program are to facilitate awareness and understanding of the multi-ethnic society in which we live and work and to develop critical thinking frameworks for addressing societal inequities.

**Student Learning Outcomes - upon completion, students will be able to:**
- critically analyze social and political phenomena based on social constructs of race, class, ethnicity, gender, sexuality, and identity to express cultural competence in local and global contexts.
- articulate the values, experiences and contributions of historically marginalized populations.

**Intercultural Studies Certificate of Achievement**

**Intercultural Studies Certificate of Achievement-Advanced A.A. Degree**
The Certificate of Achievement-Advanced and Associate degree major is an interdisciplinary program that provides both focused study on one or more ethnic groups and coursework that examines the social constructs and dynamics that govern our interactions with others. Students pursuing the Certificate of Achievement-Advanced or A.A. in Intercultural Studies gain the knowledge and skills necessary for increasing their cultural sensitivity, cultural competence, and social equity. This program enables them to work with confidence and increased effectiveness in a wide variety of international and multicultural settings.

**Student Learning Outcomes - upon completion, students will be able to:**
- critically analyze social and political phenomena based on social constructs of race, class, ethnicity, gender, sexuality, and identity to express cultural competence in local and global contexts.
- articulate the values, experiences and contributions of historically marginalized populations.
- demonstrate ability to interact in the workplace, community and other social contexts with sensitivity to individual and group-dynamic issues arising from political, economic, and cultural experiences and positions.

**Certificate of Achievement-Advanced**
1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS 4</td>
<td>Race, Ethnicity and Social Stratification</td>
<td>4</td>
</tr>
<tr>
<td>ICS 7</td>
<td>Intercultural Communication</td>
<td>4</td>
</tr>
<tr>
<td>ICS 9</td>
<td>Studying Race and Ethnicity: Theories and Methods</td>
<td>4</td>
</tr>
<tr>
<td>ICS Electives</td>
<td>Complete eight (8) units of ICS electives listed below (unduplicated by GE Requirements)</td>
<td>8</td>
</tr>
</tbody>
</table>

**Intercultural Studies Certificate of Achievement-Advanced A.A. Degree**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS 4</td>
<td>Race, Ethnicity and Social Stratification</td>
<td>4</td>
</tr>
<tr>
<td>ICS 5</td>
<td>History of Art: Multicultural Arts in the U.S.</td>
<td>4</td>
</tr>
<tr>
<td>ICS 7</td>
<td>Intercultural Communication</td>
<td>4</td>
</tr>
<tr>
<td>ICS 9</td>
<td>Studying Race and Ethnicity: Theories and Methods</td>
<td>4</td>
</tr>
<tr>
<td>ICS Electives</td>
<td>Complete eight (8) units of ICS electives listed below (unduplicated by GE Requirements)</td>
<td>8</td>
</tr>
</tbody>
</table>

**Complete a minimum of 12 units from the following:**
1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
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<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ICS 8</td>
<td>Women of Color in the USA</td>
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<tr>
<td>ICS 10</td>
<td>An Introduction to African American Studies</td>
<td>4</td>
</tr>
<tr>
<td>ICS 11</td>
<td>The Roots of the African American Experience</td>
<td>4</td>
</tr>
<tr>
<td>ICS 20</td>
<td>Asian American Experiences in History</td>
<td>4</td>
</tr>
<tr>
<td>ICS 22</td>
<td>Contemporary Asian American Communities</td>
<td>4</td>
</tr>
<tr>
<td>ICS 26</td>
<td>Introduction to Lesbian, Gay, Bisexual and Transgender Studies</td>
<td>4</td>
</tr>
<tr>
<td>ICS 29</td>
<td>Cultural Pluralism and American Law and Justice</td>
<td>4</td>
</tr>
<tr>
<td>ICS 30</td>
<td>Introduction to Chicano Studies</td>
<td>4</td>
</tr>
<tr>
<td>ICS 31</td>
<td>Chicano Culture</td>
<td>4</td>
</tr>
<tr>
<td>ICS 32</td>
<td>Chicano History</td>
<td>4</td>
</tr>
<tr>
<td>ICS 43</td>
<td>American Indian History</td>
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<tr>
<td>ICS 44</td>
<td>American Indian Religious and Philosophical Thought</td>
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</tbody>
</table>

**Total Units Required** ...........................................24

**Intercultural Studies Certificate of Achievement-Advanced A.A. Degree**

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ICS 10</td>
<td>An Introduction to African American Studies</td>
<td>4</td>
</tr>
<tr>
<td>ICS 11</td>
<td>The Roots of the African American Experience</td>
<td>4</td>
</tr>
<tr>
<td>ICS 12</td>
<td>Cinema and the African American Literature</td>
<td>4</td>
</tr>
<tr>
<td>ICS 14</td>
<td>American Indian History</td>
<td>4</td>
</tr>
<tr>
<td>ICS 16A</td>
<td>History of Africa</td>
<td>4</td>
</tr>
<tr>
<td>ICS 16B</td>
<td>History of Africa from 1800 to Present</td>
<td>4</td>
</tr>
<tr>
<td>ICS 18A</td>
<td>African American History to 1865</td>
<td>4</td>
</tr>
<tr>
<td>ICS 18B</td>
<td>African American History since 1865</td>
<td>4</td>
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</tbody>
</table>

**Intercultural Studies Certificate of Achievement-Advanced A.A. Degree**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>INTL 19A</td>
<td>History of Asian Civilization: China and Japan (through the 18th Century)</td>
<td>4</td>
</tr>
<tr>
<td>INTL 19B</td>
<td>History of Asian Civilization: China and Japan (19th - 20th Centuries)</td>
<td>4</td>
</tr>
<tr>
<td>ICS 20</td>
<td>Contemporary Asian American Communities</td>
<td>4</td>
</tr>
</tbody>
</table>

**Intercultural Studies Certificate of Achievement-Advanced A.A. Degree**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTL 19A</td>
<td>History of Asian Civilization: China and Japan (through the 18th Century)</td>
<td>4</td>
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<td>INTL 19B</td>
<td>History of Asian Civilization: China and Japan (19th - 20th Centuries)</td>
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<tr>
<td>ICS 20</td>
<td>Contemporary Asian American Communities</td>
<td>4</td>
</tr>
</tbody>
</table>

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Chicano
ICS 30 Introduction to Chicano Studies (4)
ICS 31 Chicano Culture (4)
ICS 32 Chicano History (4)
ICS 33 Chicanos and the Arts (4)
ICS 35 Chicano Literature (4)

Latin American
ICS 38A Colonial Latin American History (4)
ICS 38B Modern Latin American History (4)

Multicultural
HIST 3A World History (4)
HIST 3B World History (4)
ICS 8 Women of Color in the U.S.A. (4)
ICS 17 Critical Consciousness and Social Change (4)
ICS 26 Introduction to Lesbian, Gay, Bisexual and Transgender Studies (4)
ICS 29 Cultural Pluralism and American Law and Justice (4)
ICS 77 Special Projects in Intercultural Studies (1)
ICS 78 Special Group Projects in Intercultural Studies (0.5)

Native American
ICS 41 American Indians Today (4)
ICS 42 American Indians in California (4)
ICS 43 American Indian History (4)
ICS 44 American Indian Religious and Philosophical Thought (4)
ICS 45 Survey of American Indian Arts (4)
ICS 46 American Indian Literature (4)

Total Units Required ..................................40

A.A. Degree
For the major, complete all requirements for the Certificate of Achievement-Advanced in Intercultural Studies except where 16 units are required in Options 1, 2, & 3 above, complete 20 units. Also meet the A.A./A.S. degree requirements.

Major Requirements for Intercultural Studies Cert. of Achievement-Advanced plus four (4) additional units 44 units

GE General Education (31 - 42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .............................90 units

Student Learning Outcomes - upon completion, students will be able to:
• demonstrate competency in the basics of journalistic writing, including grammar, punctuation, story structure and journalistic styles.
• demonstrate competency in research, information gathering and critical analysis of information using techniques such as observation, researching sources, and interviewing.
• compile a portfolio of print, electronic and/or multimedia projects that tell journalistic stories.
• apply media literacy skills to explain the communication process and detect media bias.
• summarize steps appropriate to gain employment in a mass communications industry.

Prerequisite
EWRT 1A Composition and Reading

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

Complete one (1) course from: 5
EWRT 1B Reading, Writing, and Research (5)
EWRT 2 Critical Reading, Writing, and Thinking (5)

Complete the following:
JOUR 2 Mass Communication and Its Impact on Society 4
JOUR 21A News Writing and Reporting 3
JOUR 21B Feature Writing and Reporting 3
PHTG 4 Introduction to Digital Photography 3

Complete one (1) course from the following: 3
JOUR 61A Student News Media Production I (3)
JOUR 61B Student News Media Production II (3)
JOUR 61C Editorial Leadership for Student News Media (3)

Complete two (2) courses from the following: 2-8
JOUR 62A Freelance Reporting for Student Media (1)
JOUR 62B Freelance Photography for Student Media (1)
JOUR 62C Freelance Video Prod. for Student Media (1)
JOUR 62D Freelance Digital Prod. for Student Media (1)
JOUR 62E Freelance Graphic Prod. for Student Media (1)
JOUR 62F Freelance Copy Editing for Student Media (1)
JOUR 63 Newspaper Advertising Staff (1)
JOUR 77 series JOUR 77W, 77X, 77Y, 77Z Special Projects in Journalism (1-4)

JOUR 78 series JOUR 78W, 78X, 78Y, 78Z Special Topics in Journalism (1-4)

Complete a minimum of four (4) units from the following: 4
ARTS 55A Graphic Design - Communication (3)
ARTS 65 Graphic Design for the World Wide Web (3)
CIS 89A World Wide Web Page Development (3)
EWRT 65 Literary Magazine (2)
EWRT 65X Literary Magazine (3)
EWRT 68 Literary Magazine: Student Edition (2)
EWRT 68X Literary Magazine: Student Edition (3)
F/TV 20 Basic Digital Film/Video Production (4)
ICS 7 Intercultural Communication (4)
or SPCH 7
ICS 29  Cultural Pluralism and American Law and Justice (4)
LIB 1   Library Research Skills (1)
Poli 1  American Government and Politics (4)
SPCH 9  Argumentation: Analysis of Oral and Written Communication (5)

Major: Journalism 27-33 units
GE: General Education (31-42 units)
Electives: Elective courses required when major units plus GE units total is less than 90

Total Units Required: 90 units

Kinesiology

Associate in Arts in Kinesiology for Transfer

A.A.-T. Degree

The Kinesiology major consists of courses appropriate for an Associate in Arts in Kinesiology for Transfer degree, which provides a foundational understanding of the discipline, a breadth of coursework in the discipline, and preparation for transfer to any CSU that accepts the Transfer Model Curriculum (TMC). Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcomes - upon completion, students will be able to:
• display increasing confidence in the ability to use a range of speaking, listening and collaboration skills.
• apply fitness concepts to individuals seeking training programs.
• analyze, evaluate, and respond to requests for individualized fitness programs by weighing research, examining evidence, and critical reasoning.
• display competence in a variety of sports and activities.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

Complete:

BIOL 11 Human Biology (5)
CHEM 30A Introduction to General, Organic and Biochemistry I (5)
MATH 10 Elementary Statistics and Probability (5)

Major: Kinesiology for Transfer 32 units
Transfer GE: CSU GE or IGETC for CSU pattern (47-61)
Electives: CSU-transferrable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required: 90 units

Kinesiology

A.A. Degree

(Pending state approval. Check with department for status.)

Kinesiology is the study of the art and science of the human organism during work, play, sports, and other forms of movement. Sub disciplines and vocational opportunities include: Personal Training, Exercise Physiology, Sports Medicine, Biomechanics, Motor Development, Sociology and Psychology of Sport, Personal Training, Coaching, and Teaching. Upon completion of this degree, students will be able to transfer to a four-year institution to further their studies and/or be prepared to take national certification tests in the vocational areas of this discipline.

Student Learning Outcomes - upon completion, students will be able to:
• complete national certification tests in the vocational areas of this discipline.

Students must present current CPR certification when applying for this degree.

Complete the following and meet the A.A./A.S. degree requirements.

BIOL 40A Human Anatomy and Physiology 5
BIOL 40B Human Anatomy and Physiology 5
BIOL 40C Human Anatomy and Physiology 5
CHEM 30A Introduction to General, Organic and Biochemistry I 5
NUTR 10 Contemporary Nutrition 4
PE 30 Introduction to Physical Education/Kinesiology 4
PE 35 Care and Prevention of Athletic Injuries 4
PE/HLTH 51 Health and Fitness 4
PE 53 Stress Reduction 2
PE 88A Coaching I: The Foundations of Coaching 2

*The course combination of PE 70A and PE 71 may be substituted for the PE/HLTH 51 course. PE 71 (one unit of Fitness) may apply toward the four (4) units of required PE activity.

Complete a minimum of four (4) units of PE activity from at least four (4) different activity areas. Only one (1) unit from intercollegiate athletics may apply.

• Aquatics
• Combatives
• Dance
• Fitness
• Individual and Dual Sports
• Team Sports

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Complete a minimum of one (1) unit of Special Projects/Internship in the Fitness Center. Special Projects in Physical Education need approval from the division dean. 1-1.5

PE 77X Special Projects in Physical Education (1)
PE 77Y Special Projects in Physical Education (1.5)

Major Kinesiology 45-45.5 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required .................. 90 units

Recommended courses:
CHEM 30B Introduction to General, Organic and Biochemistry II (5)
HLTH 57A First Aid in the Workplace, Community and Wilderness (1)
HLTH 57D CPR/AED for the Professional Rescuer - Recertification (0.5)
HLTH 57E CPR & Automated External Defibrillation (0.5)
NUTR 62 Nutrition and Athletic Performance (2)
NUTR 62G Dieting (Sifting Fact from Fiction) (1)
PE 54 Introduction to Massage (4)
PE 88B Coaching II: The Fundamentals of Fund Raising and Budgeting (2)

Leadership and Social Change

Leadership and Power
Complete the following course:

POLI 17 Grassroots Democracy: Leadership and Power 4

Leadership Skills
Complete a minimum of four (4) units from the following: 4

BUS 65 Leadership (5)
ES 65 Environmental Stewardship (1)
ES 66 Environmental Leadership (1)
ES 67 Environmental Team-Building (1)
ES 68 Community-Based Coalitions and Stakeholders (1)
ICS 57 Justice, Nature and the Geographies of Identity (4)
ICS 55 Civic Leadership for Community Empowerment (4)
SPCH 15 Critical Decision-Making in Groups (4)
SPCH 70 Effective Organizational Communication (4)

Understanding Social Change
Complete a minimum of four (4) units from the following: 4

ICS 17 Critical Consciousness and Social Change (4) also listed as PHIL 17
POLI 15 Grassroots Democracy: Race, Culture and Liberation (4)
POLI 16 Grassroots Democracy: Social Movements Since the 1960s (4)
SOC 5 Sociology of Globalization and Social Change (4)
WMST 1 Introduction to Women’s Studies (4)
WMST 8 Women of Color in the United States (4)

Leadership Internship
Complete a minimum of six (6) units from the following: 6

ICS 80 series ICS 80, 80W, 80X, 80Y, 80Z Community Based Learning in Intercultural Studies-Beginning (0.5-4)
ICS 81 series ICS 81, 81W, 81X, 81Y, 81Z Community Based Learning in Intercultural Studies-Intermediate (0.5-4)
ICS 82 series ICS 82, 82W, 82X, 82Y, 82Z Community Based Learning in Intercultural Studies-Advanced (0.5-4)
SOSC 80 series SOSC 80, 80W, 80X, 80Y, 80Z Community Based Learning in Social Sciences-Beginning (0.5-4)
SOSC 82 series SOSC 82, 82W, 82X, 82Y, 82Z Community Based Learning in Social Sciences-Intermediate (0.5-4)
SOSC 83 series SOSC 83, 83W, 83X, 83Y, 83Z Community Based Learning in Social Sciences-Advanced (0.5-4)

Total Units Required .................. 18

Liberal Arts

A.A. Degree

Designed primarily for students who plan on transferring to the University of California or California State University, the Associate degree in Liberal Arts represents the completion of a broad area of study with an emphasis in one of the following four areas: Arts and Letters, Business and Computer Information Systems, Social and Behavioral Sciences and Science, Math and Engineering. The degree allows the student to develop a broad set of essential life/work competencies such as: communication, critical thinking, problem solving, quantitative reasoning and multicultural skills. Students complete a minimum of 27 units from one of the four emphasis areas, the AA degree General Education requirements and the AA/AS degree requirements noted in the campus catalog. Courses used for the 27 unit emphasis area requirement may not be used to satisfy the General Education requirements. Students are limited to earning one (1) Liberal Arts degree.

Student Learning Outcomes - upon completion, students will be able to:

• demonstrate the use of effective language and speech communication skills.
• analyze and solve problems by using thoughtful and logical reasoning skills.
• recognize and value the complexities of living in a multicultural world by demonstrating an appreciation of diversity in its many forms.
• display behaviors that promote the mental and physical well-being of self and others.
• identify basic/foundational theories, concepts, and practices in the comprehensive area of emphasis.
Arts and Letters Emphasis

Cantonese  1, 2, 3
Education  58
English as a Second Language  6
English Literature  6, 10, 11, 12, 17, 19, 20, 21, 22, 24, 25, 39, 44, 46A, 46B, 46C, 48A, 48B, 48C, 58
English Writing  1B, 1C, 2, 30, 40, 41, 42
Environmental Studies  3
Film and Television  1, 2A, 2AW, 2B, 2BW, 2C, 2CW, 20, 41, 42, 43, 48, 66A, 75G, 75K, 85
French  1, 2, 3, 4, 5, 6
German  1, 2, 3, 4, 5, 6
Hindi  1, 2, 3
History  4A, 4B, 4C, 4D
Humanities  1, 2, 5, 6, 7, 9, 10, 13, 14A, 14B, 14C, 15, 16, 18, 20
Intercultural Studies  5, 11, 12, 14, 24, 33, 35, 44, 45, 46
International Studies  10, 11, 13, 15, 21, 22, 23, 24, 34
Italian  1, 2, 3
Japanese  1, 2, 3, 4, 5, 6
Journalism  2, 21A, 21B
Korean  1, 2, 3, 4, 5, 6
Linguistics  1
Mandarin  1, 2, 3, 4, 5, 6
Persian  1, 2, 3, 4, 5, 6
Philosophy  1, 2, 3, 4, 7, 8, 9, 14A, 14B, 14C, 20A, 20B, 20C, 24, 30, 49
Photography  1, 2, 3, 4, 5, 7, 20, 21, 52, 54, 57A, 57B, 58A, 58B, 60
Russian  1, 2, 3
Sign Language  1, 2, 3
Spanish  1, 2, 3, 4, 5, 6
Speech Communication  1, 8, 9, 10, 15
Theatre Arts  1, 20A, 20B, 20C
Vietnamese  1, 2, 3, 4, 5, 6
Women’s Studies  3C, 21, 49

Business and Computer Information Systems Emphasis

Accounting  1A, 1B, 1C, 51A, 51B, 52, 58, 64, 66, 67A, 67B, 68, 75, 86, 87A-87AM, 88
Business  10, 18, 21, 54, 55, 56, 57, 58, 59, 60, 65, 67A, 67B, 69, 70, 85, 87, 89, 90, 91, 96
Economics  1, 2
Library  1, 51, 53, 55
Math  1A, 1B, 1C, 1D, 10, 11, 12, 57
Real Estate  50, 51, 52A, 53, 54, 56A, 59, 61
Speech Communication  70

Major Business and Computer Information Systems Emphasis  27 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .............................. 90 units

Science, Math and Engineering Emphasis

Anthropology  1, 1L
Astronomy  4, 10
Biology  5, 6A, 6B, 6C, 8, 10, 11, 13, 15, 26, 40A, 40B, 40C, 45, 54G, 54H, 54I, 54J
Chemistry  1A, 1B, 1C, 10, 12A, 12B, 12C, 30A, 30B, 50
Education  46
Engineering  10, 35, 37
Environmental Science  1, 1L, 19, 20, 21, 30
Environmental Studies  2, 50, 56, 58
Geography  1, 5
Geology  10, 20
Health  21, 51
Math  1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 22, 23, 41, 42, 43, 44, 46, 57
Meteorology  10, 10L, 20L
Nutrition  10
Physics  2A, 2B, 2C, 4A, 4B, 4C, 4D, 10, 50

Major Science, Math and Engineering Emphasis  27 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .............................. 90 units
Social and Behavioral Sciences Emphasis

Administration of Justice 1, 3, 5, 11, 25, 29, 50, 51, 53, 54, 55, 56, 60, 61, 62, 73, 74A, 75, 78, 90A, 95

Anthropology 2, 3, 4, 6, 69

Arts 3TC

Business 21

Career Life Planning 70, 75

Child Development 10G, 10H, 12, 50, 51A, 52, 53, 54, 55, 56, 57, 58, 59G, 59H, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 80, 90

Computer Information Systems 2

Economics 1, 2

Education 1, 56, 73, 74

Environmental Studies 1, 2, 3

Film and Television 10

Geography 1, 4, 5, 10


Human Development 10, 20, 50

Intercultural Studies 1, 2, 3, 4, 6, 9, 10, 11, 16A, 16B, 17, 18A, 18B, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 36, 37, 38A, 38B, 41, 42, 43, 44, 55, 57

International Studies 5, 8, 19A, 19B, 30, 33

Journalism 2

Math 10, 57

Paralegal Studies 3, 11, 25, 54, 74A, 75, 90A, 95

Philosophy 10, 17

Political Science 1, 2, 3, 4, 5, 10, 11, 13, 15, 16, 17, 30, 33, 75, 95

Psychology 1, 2, 3, 4, 5, 6, 8, 9, 10G, 10H, 12, 14, 15, 24, 60, 63, 67, 74A

Sociology 1, 4, 5, 8, 15, 20, 25, 28, 35, 50, 51, 54, 73

Speech Communication 7, 16, 70

Women’s Studies 1, 3C, 8, 9, 12, 28, 30

Major Social and Behavioral Sciences Emphasis 27 units

GE General Education (31-42 units)

Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required ......................... 90 units

Management

A.A. Degree

The A.A. degree in Management prepares students for a career managing and leading employees in positions such as Service Manager, Retail Sales Manager, Customer Service Supervisor, Office Manager, Human Resources Coordinator, Employee Benefits Associate, Construction Project Manager, Hotel/Hospitality Supervisor, or Management Trainee. Students learn the fundamentals of general business administration, with an emphasis on management, leadership, and human resource management.

Student Learning Outcomes - upon completion, students will be able to:

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

BUS 10 Introduction to Business 5
BUS 57 Human Resource Management 4
BUS 65 Leadership 5
BUS 96 Principles of Management 5

Complete a minimum of 14 units from the following: 14

BUS 54 Business Mathematics (5)
BUS 55 Introduction to Entrepreneurship (5)
BUS 58 The Business Plan (4)
BUS 70 Principles of E-Business (5)
BUS 87 Introduction to Selling (4)
BUS 90 Principles of Marketing (5)
ACCT 1A Financial Accounting I (5)
ECON 1 Principles of Macroeconomics (4)
SPCH 70 Effective Organizational Communication (4)
Major Management 53 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ........................ 90 units

Mandarin

Certificate of Achievement
(Pending state approval. Check with the department for the status.)

The Certificate of Achievement in Mandarin is designed to open employment opportunities for local students because of the large number of Bay Area companies conducting business and trade with China and Taiwan, along with Singapore and other Asian countries where Mandarin is widely used. The electronics industry in particular seeks to employ people who know Mandarin. For students planning to continue their undergraduate or graduate education in business, electronics, or law, this certificate will complement their studies. From a cultural standpoint, Mandarin study is valuable in California, with its rich diversity of cultural traditions represented by many Mandarin-speaking immigrants. Many Mandarin courses can also satisfy GE requirements for an Associates degree and transfer GE requirements.

Student Learning Outcomes - upon completion students will be able to:
• demonstrate a working command of essential vocabulary, recognize and reproduce between 600-800 Chinese characters, use proper language structures when providing or requesting information orally and in writing, and use the appropriate level of respect and language style in varying situations.
• demonstrate a solid understanding of the social protocols and contributions of Mandarin-speaking cultures by analyzing and comparing them to other cultures.

1. Meet the requirements for this certificate level.
2. Complete the following.

MAND 1 Elementary Mandarin (First Quarter) 5
MAND 2 Elementary Mandarin (Second Quarter) 5
MAND 3 Elementary Mandarin (Third Quarter) 5
MAND 4 Intermediate Mandarin (First Quarter) 5
MAND 5 Intermediate Mandarin (Second Quarter) 5
MAND 6 Intermediate Mandarin (Third Quarter) 5
INTL 19A History of Asian Civilization: China and Japan (through the 18th Century) 4
also listed as HIST 19A

Total Units Required ..................................34

Manufacturing and Computer Numerical Control (CNC)

CNC Machinist Certificate of Achievement
(Pending state approval. Check with the department for the status.)

The Computer Numerical Control (CNC) Machinist certificate program teaches students the fundamentals of conventional and CNC machine tools. Students learn how to set-up safely and operate manual mills and lathes and construct word address programs for the set-up and operation of CNC mills. Upon completion, students are prepared for employment in manufacturing facilities as set-up persons, machine operators and production workers. This certificate is part of a career ladder. Students may also choose to complete a certificate of achievement-advanced or A.S. degree.

Student Learning Outcomes - upon completion, students will be able to:
• set up and operate conventional and CNC machines safely.
• construct and inspect machined projects using conventional and CNC equipment.
• construct word address programs to machine projects.

MCNC 60 Print Reading and Dimensional Metrology 4.5
MCNC 71 Introduction to Machining & CNC Processes 4.5
MCNC 75A    Intro. to Computer-Aided Numerical Control (CNC) Programming and Operation: Mills 4.5

Total Units Required .................................. 18

CNC Machinist Certificate of Achievement-Advanced
A.S. Degree
The CNC Machinist Certificate of Achievement-Advanced and AS degree programs teach students the fundamentals of CNC machine tools. Students learn safe set-up, editing and operation of CNC equipment, including vertical and horizontal mills, lathes and rotary multi-axis components. Students are taught to dimension and inspect parts using various inspection methods, and to analyze materials and processes used in manufacturing. Upon completion, students are prepared for employment in manufacturing facilities as CNC set-up persons and machine operators.

Student Learning Outcomes - upon completion, students will be able to:
- construct and inspect machined projects using CNC equipment with word address programs.
- apply geometric dimensioning and tolerance standards to inspect drawings and inspect parts using a coordinate measuring machine.
- differentiate and analyze the materials and processes used in manufacturing.
- produce tool paths with constructed and imported geometry using Mastercam.
- apply advanced machining skills by independently contracting projects.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the following:

Complete one (1) course from:
MCNC 76G - 76K series (4.5)
CAD/CAM Based CNC Surface Contouring Programming Using Mastercam

Complete one (1) course from:
MCNC 76M - 76Q series (4.5)
CAD/CAM Based CNC 4 and 5 Axis Mill/Lathe Programming Using Mastercam

Complete two (2) units from:
MCNC 80A Special Projects in Manufacturing and CNC/Mastercam Level 1 (2)
MCNC 80B Special Projects in Manufacturing and CNC/Mastercam Level 2 (2)
MCNC 80C Special Projects in Manufacturing and CNC/Mastercam Level 3 (2)

Total Units Required ...............................49.5

A.S. Degree
Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the CNC Machinist Certificate of Achievement-Advanced 49.5 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ........................ 90 units

CNC Programming - CAD/CAM Certificate of Achievement
(Pending state approval. Check with the department for the status.)

The CNC Programming - CAD/CAM certificate program teaches students 2D, 3D, lathe and multi-axis machine tool programming. Students learn to construct geometry, select tools, and produce and verify tool paths. Upon completion, students are prepared for employment as entry-level programmers in prototype and production manufacturing facilities. This certificate is part of a career ladder. Students may also choose to complete a certificate of achievement-advanced or A.S. degree.

Student Learning Outcomes - upon completion, students will be able to:
- design and construct 2D, 3D, lathe, horizontal and multi-axis part geometry.
- select tools and produce tool paths with constructed and imported geometry.
- verify tool paths and create word address programs for CNC machines.

Complete one (1) course from:
MCNC 76C - 76E series (introductory) (4.5)
CAD/CAM Based CNC Programming Using Mastercam
Complete one (1) course from:
MCNC 76G - 76K series (4.5)
CAD/CAM Based CNC Surface Contouring Programming Using Mastercam

Complete one (1) course from:
MCNC 76M - 76Q series (4.5)
CAD/CAM Based CNC 4 and 5 Axis Mill/Lathe Programming Using Mastercam

Complete one (1) course from:
MCNC 78A - 78E series (4.5)
CAM Based CNC Multi-Axis Programming Using NX

Total Units Required ..................................18

CNC Research and Development Machinist Certificate of Achievement-Advanced
A.S. Degree
The certificate of achievement-advanced and AS degree programs teach students the fundamentals of conventional and CNC machine tools. Students learn to set up safely and operate manual mills, lathes, surface grinders, and CNC equipment, including vertical and horizontal mills, lathes and rotary multi-axis components. They also learn to produce word address programs with CAD/CAM software. Students are taught to dimension and inspect parts using various inspection methods, and to analyze materials and processes used in manufacturing. Upon completion, students are prepared for employment working closely with engineers in a research and development environment.

Student Learning Outcomes - upon completion, students will be able to:
• construct and inspect machined projects using conventional and CNC equipment using word address programs.
• apply geometric dimensioning and tolerance standards to inspect drawings and inspect parts using a coordinate measuring machine.
• differentiate and analyze the materials and processes used in manufacturing.
• analyze, construct, and inspect diagrams to repair physical and electrical components.
• produce tool paths with constructed and imported geometry using Mastercam.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the following.

MCNC 60  Print Reading and Dimensional Metrology 4.5
MCNC 64  Manufacturing Materials and Processes 4
MCNC 71  Introduction to Machining and CNC Processes 4.5
MCNC 72  Applied Geometric Inspection Dimensioning & Tolerancing; Coordinate Measuring Machines 3
MCNC 75A  Intro. to Computer-Aided Numerical Control (CNC) Programming and Operation: Mills 4.5
MCNC 75C  CNC Lathes & Horizontal Machining Centers; Programming & Operation, 4th Rotary Axis, Fixture Design 4.5
MCNC 77  Machining Practices Using Conventional Machine Tools, Tool Design, Abrasive Machining 4.5

Complete one (1) course from:
MCNC 76C - 76E series (introduction) (4.5)
CAD/CAM Based CNC Programming Using Mastercam

Complete one (1) course from:
MCNC 76G - 76K series (4.5)
CAD/CAM Based CNC Surface Contouring Programming Using Mastercam

Complete one (1) course from:
MCNC 76M - 76Q series (4.5)
CAD/CAM Based CNC 4 and 5 Axis Mill/Lathe Programming Using Mastercam

Complete four (4) units from:
MCNC 80D  Special Projects in Manufacturing and CNC/NIMS Level 1 (2)
MCNC 80E  Special Projects in Manufacturing and CNC/NIMS Level 2 (2)
MCNC 80F  Special Projects in Manufacturing and CNC/NIMS Level 3 (2)

Total Units Required ..................................51.5

A.S. Degree
Meet the A.A./A.S. degree requirements.
Major Complete the course requirements for the CNC Research and Develop. Machinist Cert. of Achievement-Advanced 51.5 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ......................... 90 units

Manufacturing Systems Technician Certificate of Achievement
The Manufacturing Systems Technician Certificate of Achievement teaches students the safe operation of basic and specialized machine tools. Students learn to set up safely and operate manual mills, lathes, and surface grinders as well as construct entry-level programs for operation of CNC Mills and inspect parts to repair physical and electrical components. Upon completion, students are prepared for employment for set up, maintenance, and occasional operation of a variety of automated equipment.

Student Learning Outcomes - upon completion, students will be able to:
• demonstrate safe operation of basic and specialized equipment.
• demonstrate entry-level programming skills for computer numerical controlled equipment.
• analyze, construct, and inspect parts and diagrams to repair physical and electrical components.
1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 53A</td>
<td>Automotive Mechanisms</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 53B</td>
<td>Automotive Electromechanical Systems</td>
<td>2</td>
</tr>
<tr>
<td>MCNC 64</td>
<td>Manufacturing Materials and Processes</td>
<td>4</td>
</tr>
<tr>
<td>MCNC 71</td>
<td>Introduction to Machining &amp; CNC Processes</td>
<td>4.5</td>
</tr>
<tr>
<td>MCNC 75A</td>
<td>Intro. to Computer-Aided Numerical Control (CNC) Programming and Operation: Mills</td>
<td>4.5</td>
</tr>
<tr>
<td>MCNC 77</td>
<td>Machining Practices Using Conventional Machine Tools, Tool Design, Abrasive Machining</td>
<td>4.5</td>
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</tbody>
</table>

**Total Units Required** .................................. **22.5**

### Product Model Making

**Certificate of Achievement-Advanced**

**A.S. Degree**

Students in the Certificate of Achievement-Advanced and A.S. degree programs are taught the fundamentals of Product Model Making. Students learn the safe set-up of CNC equipment, how to design and construct three-dimensional objects using CAD/CAM software, and how to analyze materials and processes used in prototype model making. Upon completion, students are prepared for employment working in design-stage product development, and prototype and model making environments.

**Student Learning Outcomes - upon completion, students will be able to:**
- construct and inspect machined projects using conventional and CNC equipment that uses word address programs.
- design and construct three-dimensional objects.
- create part geometry using Solidworks or CREO/Pro Engineer CAD software.
- differentiate and analyze the materials and processes used in manufacturing.
- produce tool paths with constructed and imported geometry using Mastercam.

**Certificate of Achievement-Advanced**

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 10A</td>
<td>Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 10B</td>
<td>Intermediate Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>MCNC 64</td>
<td>Manufacturing Materials and Processes</td>
<td>4</td>
</tr>
<tr>
<td>MCNC 71</td>
<td>Introduction to Machining &amp; CNC Processes</td>
<td>4.5</td>
</tr>
<tr>
<td>MCNC 75A</td>
<td>Intro. to Computer-Aided Numerical Control (CNC) Programming and Operation: Mills</td>
<td>4.5</td>
</tr>
</tbody>
</table>

**Complete one (1) course from one (1) of these series:**

- CDI 60 SolidWorks (Beginning) (4)
- CDI 70 Creo Parametric (Beginning) (4)

**Total Units Required** .................................. **22.5**

### Marketing Management

**Certificate of Achievement**

Students learn the fundamentals of general business administration, marketing, selling, advertising, and other related functions. They also prepare for a wide variety of marketing-related careers. The Marketing Management program is built on the ladder concept, whereby students can complete a certificate of achievement and/or a certificate of achievement-advanced en route to the Associate in Arts degree.

**Student Learning Outcomes - upon completion, students will be able to:**
- identify and distinguish the elements of the marketing mix for an organization in a given business environment.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 10</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 87</td>
<td>Introduction to Selling</td>
<td>4</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Advertising</td>
<td>5</td>
</tr>
<tr>
<td>BUS 90</td>
<td>Principles of Marketing</td>
<td>5</td>
</tr>
</tbody>
</table>

**Complete one (1) course from the following:**

- ACCT 1A Financial Accounting I (5)
- BUS 18 Business Law I (5)
- BUS 54 Business Mathematics (5)
- BUS 56 Human Relations in Business (5)
- BUS 59 Promoting Your Small Business (5)
- BUS 60 International Business Management (5)
- BUS 65 Leadership (5)
- BUS 70 Principles of E-Business (5)
- BUS 96 Principles of Management (5)

**Total Units Required** .................................. **24**
Marketing Management

Certificate of Achievement-Advanced

Students learn the fundamentals of general business administration, marketing, selling, and advertising. Other related subjects the program covers such as business law, accounting, and management give them additional insight into the marketing concepts and techniques they learn by placing them in a broader context. Students pursuing this certificate prepare for a wide variety of marketing-related careers. The Marketing Management program is built on the ladder concept, whereby students can complete a certificate of achievement and/or a certificate of achievement-advanced en route to the Associate in Arts degree.

Student Learning Outcomes - upon completion, students will be able to:
- apply and analyze marketing concepts for an organization in a given business environment.

1. Meet the requirements for this certificate level.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 10</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 87</td>
<td>Introduction to Selling</td>
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</tr>
<tr>
<td>BUS 89</td>
<td>Advertising</td>
<td>5</td>
</tr>
<tr>
<td>BUS 90</td>
<td>Principles of Marketing</td>
<td>5</td>
</tr>
</tbody>
</table>

Complete five (5) courses from the following: 25

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 54</td>
<td>Business Mathematics</td>
<td>5</td>
</tr>
<tr>
<td>BUS 56</td>
<td>Human Relations in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 59</td>
<td>Promoting Your Small Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business Management</td>
<td>5</td>
</tr>
<tr>
<td>BUS 65</td>
<td>Leadership</td>
<td>5</td>
</tr>
<tr>
<td>BUS 70</td>
<td>Principles of E-Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 96</td>
<td>Principles of Management</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Units Required .................................. 44

Complete a minimum of nine (9) units from the following: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 21</td>
<td>Business and Society</td>
<td>5</td>
</tr>
<tr>
<td>BUS 56</td>
<td>Human Relations in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 57</td>
<td>Human Resource Management</td>
<td>4</td>
</tr>
<tr>
<td>BUS 59</td>
<td>Promoting Your Small Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 65</td>
<td>Leadership</td>
<td>5</td>
</tr>
<tr>
<td>BUS 70</td>
<td>Principles of E-Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 85</td>
<td>Business Communication (3)</td>
<td></td>
</tr>
<tr>
<td>SPCH 70</td>
<td>Effective Organizational Communication (4)</td>
<td></td>
</tr>
</tbody>
</table>

Major Marketing Management 53 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ......................... 90 units

按摩

Massage Therapy

Certificate of Achievement

This program prepares students with the knowledge, skills and abilities necessary for entry-level massage therapist positions.

Student Learning Outcomes - upon completion, students will be able to:
- demonstrate knowledge of the various systems of the body and pathologies of these systems that can contraindicate or benefit from massage.
- utilize the results of health intake forms and physical assessments to formulate and administer effective individualized massage treatments.

Complete the following and meet the requirements for this certificate level.

Students must present current First Aid and CPR cards to receive a certificate or degree in Massage Therapy.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 40A</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PE 11</td>
<td>Stretching (24 hours)</td>
<td>0.5</td>
</tr>
<tr>
<td>PE 53</td>
<td>Stress Management (24 hours)</td>
<td>2</td>
</tr>
<tr>
<td>PE 54</td>
<td>Introduction to Massage (72 hours)</td>
<td>4</td>
</tr>
<tr>
<td>PE 54A</td>
<td>Intermediate Massage (60 hours)</td>
<td>3</td>
</tr>
<tr>
<td>PE 54B</td>
<td>Sports Massage (60 hours)</td>
<td>3</td>
</tr>
<tr>
<td>PE 54C</td>
<td>Advanced Massage Skills (72 hours)</td>
<td>4</td>
</tr>
<tr>
<td>PE 54D</td>
<td>Clinical Practicum in Massage Therapy (84 hours)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete a minimum of one (1) unit from the Massage Therapy Internship courses.

Note: Enrollment in these internship courses requires consent of the Instructor or Massage Program Coordinator.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 54H</td>
<td>Internship in Adapted Physical Education Lab (1)</td>
<td>(36 hours)</td>
</tr>
<tr>
<td>PE 54J</td>
<td>Internship in Adapted Physical Education Lab (2)</td>
<td>(72 hours)</td>
</tr>
</tbody>
</table>
### Massage Therapy

**Certificate of Achievement-Advanced**

This program builds on the instruction of the certificate of achievement and provides students training in advanced treatment modalities and fitness concepts and more experience administering therapeutic treatments in a variety of professional settings.

**Student Learning Outcomes - upon completion, students will be able to:**
- Integrate advanced modality and treatment concepts into their treatments.
- Utilize advanced theories, methods and procedures to design and administer effective clinical treatments in a variety of professional settings with diverse populations.
- Demonstrate increased physical strength and endurance to meet the rigors of the profession.

**Complete the following and meet the requirements for this certificate level.**

Students must present current First Aid and CPR cards to receive a certificate or degree in Massage Therapy.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 40A</td>
<td>Human Anatomy and Physiology (84 hours)</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 40B</td>
<td>Human Anatomy and Physiology (84 hours)</td>
<td>5</td>
</tr>
<tr>
<td>PE 11</td>
<td>Stretching (24 hours)</td>
<td>0.5</td>
</tr>
<tr>
<td>PE 35</td>
<td>Care and Prevention/Athletic Injuries (72 hours)</td>
<td>4</td>
</tr>
<tr>
<td>PE 53</td>
<td>Stress Management (24 hours)</td>
<td>2</td>
</tr>
<tr>
<td>PE 54</td>
<td>Introduction to Massage (72 hours)</td>
<td>4</td>
</tr>
<tr>
<td>PE 54A</td>
<td>Intermediate Massage (60 hours)</td>
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<tr>
<td>PE 54B</td>
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</tr>
<tr>
<td>PE 54C</td>
<td>Advanced Massage Skills (72 hours)</td>
<td>4</td>
</tr>
<tr>
<td>PE 54D</td>
<td>Clinical Practicum in Massage Therapy (84 hours)</td>
<td>3</td>
</tr>
<tr>
<td>PE 54E</td>
<td>Table Shiatsu (72 hours)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Complete a total of three (3) units from the Massage Therapy Internship courses. One (1) unit must be in applied “hands on” massage. The additional two (2) units may be either in applied massage or teaching assistant internships.**

Note: Enrollment in these internship courses requires consent of the Instructor or Massage Program Coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 54H</td>
<td>Internship in Adapted Physical Education Lab (1)</td>
<td>36</td>
</tr>
<tr>
<td>PE 54J</td>
<td>Internship in Adapted Physical Education Lab (2)</td>
<td>72</td>
</tr>
<tr>
<td>PE 54K</td>
<td>Internship in Adapted Physical Education Lab (3)</td>
<td>108</td>
</tr>
<tr>
<td>PE 54L</td>
<td>Teacher’s Assistant Internship (1)</td>
<td>36</td>
</tr>
<tr>
<td>PE 54M</td>
<td>Teacher’s Assistant Internship (2)</td>
<td>72</td>
</tr>
<tr>
<td>PE 54N</td>
<td>Teacher’s Assistant Internship (3)</td>
<td>108</td>
</tr>
<tr>
<td>PE 54P</td>
<td>Sports Massage Internship (1)</td>
<td>36</td>
</tr>
<tr>
<td>PE 54Q</td>
<td>Sports Massage Internship (2)</td>
<td>72</td>
</tr>
<tr>
<td>PE 54R</td>
<td>Sports Massage Internship (3)</td>
<td>108</td>
</tr>
<tr>
<td>PE 54S</td>
<td>Teacher’s Assistant Internship (4)</td>
<td>108</td>
</tr>
</tbody>
</table>

**Complete a minimum of four (4) units from the following:**

- BUS 55 Intro. to Entrepreneurship (5) (60 hours)
- NUTR 62 Nutrition & Athletic Performance (2) (24 hours)
- PE 2Q Tai Chi (0.5) (24 hours)
- PE 54F Introduction to Chair Massage (3) (60 hours)
- PE 70A Orientation to Lifetime Fitness (2) (24 hours)
- PE 71 Lifetime Wellness and Fitness Center Lab (1) (36 hours)
- PE 77A Special Projects in Physical Education (0.5) (18 hrs)
- PE 77X Special Projects in Physical Education (1) (36 hrs)
- PE 77Y Special Projects in Physical Education (1.5) (54 hrs)

**Total Units Required (876 hours min.).................................44.5**

*Special Projects in Physical Education for the Massage Therapy program need approval from the Massage Program Coordinator.*

### Massage Therapy

**A.A. Degree**

This program builds on the instruction of the certificate of achievement-advanced and provides students with additional knowledge, hands-on experience and fitness training to help them succeed as a massage therapist or to transfer to a four-year institution as a Kinesiology major.

**Student Learning Outcomes - upon completion, students will be able to:**
- Integrate advanced modality and treatment concepts into their treatments.
- Utilize advanced theories, methods and procedures to design and administer effective clinical treatments in a variety of professional settings with diverse populations.
- Demonstrate increased physical strength and endurance to perform consecutive massage treatments without difficulty.
- Demonstrate effective entrepreneurial and oral and written communication skills to increase success in their careers.

**Complete the following and meet the A.A./A.S. degree requirements.**

Students must present current First Aid and CPR cards to receive a certificate or degree in Massage Therapy.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 40A</td>
<td>Human Anatomy and Physiology (84 hours)</td>
<td>5</td>
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<tr>
<td>PE 11</td>
<td>Stretching (24 hours)</td>
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<td>PE 54E</td>
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<tr>
<td>PE 54F</td>
<td>Introduction to Chair Massage (3) (60 hours)</td>
<td>3</td>
</tr>
<tr>
<td>PE 54G</td>
<td>Sports Massage (60 hours)</td>
<td>3</td>
</tr>
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<td>PE 54H</td>
<td>Advanced Massage Skills (72 hours)</td>
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</tr>
<tr>
<td>PE 54I</td>
<td>Clinical Practicum in Massage Therapy (84 hours)</td>
<td>3</td>
</tr>
</tbody>
</table>
PE 54E  Table Shiatsu (72 hours)  4
PE 54F  Chair Massage (60 hours)  3

Complete a total of four (4) units from the Massage Therapy Internship courses. One (1) unit must be in applied “hands on” massage. The additional three (3) units may be either in applied massage or teaching assistant internships. Note: Enrollment in these internship courses requires consent of the Instructor or Massage Program Coordinator.

PE 54H  Internship in Adapted Physical Education Lab (1) (36 hours)
PE 54J  Internship in Adapted Physical Education Lab (2) (72 hours)
PE 54K  Internship in Adapted Physical Education Lab (3) (108 hours)
PE 54L  Teacher’s Assistant Internship (1) (36 hours)
PE 54M  Teacher’s Assistant Internship (2) (72 hours)
PE 54N  Teacher’s Assistant Internship (3) (108 hours)
PE 54P  Sports Massage Internship (1) (36 hours)
PE 54Q  Sports Massage Internship (2) (72 hours)
PE 54R  Sports Massage Internship (3) (108 hours)

Complete a minimum of 7.5 units from the following:  7.5
BIOL 40C  Human Anatomy and Physiology (5) (84 hours)
BUS 55  Introduction to Entrepreneurship (5) (60 hours)
NUTR 62  Nutrition and Athletic Performance (2) (24 hours)
PE 2Q  Tai Chi (0.5) (24 hours)
PE 70A  Orientation to Lifetime Fitness (2) (24 hours)
PE 71  Lifetime Wellness and Fitness Center Lab (1) (36 hours)
PE 77*  Special Projects in Physical Education (0.5) (18 hrs)
PE 77X*  Special Projects in Physical Education (1) (36 hrs)
PE 77Y*  Special Projects in Physical Education (1.5) (54 hrs)

* Special Projects in Physical Education for the Massage Therapy program need approval from the Massage Program Coordinator.

Mathematics

Associate in Science in Mathematics for Transfer
A.S.-T. Degree

The role of mathematics is vital and growing, providing solutions to problems in a wide range of sciences: social, biological, physical, behavioral, and management. As a whole, mathematics is necessary for understanding and expressing ideas in science, engineering, and human affairs. Mathematics is integrally related to computer science and statistics, which have proven invaluable to advancing research and modern industrial technology. The curriculum for the Associate in Science in Mathematics for Transfer academically prepares the student to transfer into the CSU system to complete a Baccalaureate degree in a similar major.

Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcome

Upon completion, students will be prepared for successful entry into upper division courses in mathematics.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

MATH 1A  Calculus  5
MATH 1B  Calculus  5
MATH 1C  Calculus  5
MATH 1D  Calculus  5
MATH 2A  Differential Equations  5
MATH 2B  Linear Algebra  5

Major Mathematics for Transfer  30 units
Transfer GE  CSU GE or IGETC for CSU pattern (47-61)
Electives  CSU-transferrable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required ..................... 90 units

Medical Laboratory Technology

Certificate of Achievement-Advanced

Note: to receive the Medical Laboratory Technology Certificate of Achievement-Advanced, the student must have an A.A./A.S. degree or higher.

The Medical Laboratory Technician (MLT) Certificate of Achievement-Advanced is available to students who have an associate or higher degree from an accredited US institution or the evaluated equivalent from foreign study. The certificate of achievement-advanced program is a 15-month course of study (including one summer) that prepares students for a career as a Medical Laboratory Technician through classroom study and supervised clinical training. The MLT program provides students with a quality education that complies with the established standards and guidelines of an accredited laboratory training program. Graduates of the certificate program are eligible to sit for a state approved national MLT certification examination.

Student Learning Outcomes - upon completion, students will be able to:
• pass a state approved national medical laboratory certification exam.
1. Meet the requirements for this certificate level.
2. Complete the following prerequisites and requirements with a “C” grade or better:

**Prerequisites**

State of California Phlebotomy Certification

Complete one (1) of the following sequences:

15-18

- BIOL 40A Human Anatomy and Physiology (5)
- BIOL 40B Human Anatomy and Physiology (5)
- BIOL 40C Human Anatomy and Physiology (5)

or

- BIOL 6A Form and Function in the Biological World (6)
- BIOL 6B Cell and Molecular Biology (6)
- BIOL 6C Evolution and Ecology (6)

Complete the following:

- BIOL 26 Introductory Microbiology 6
- CHEM 30A Introduction to General, Organic and Biochemistry I 5
- CHEM 30B Introduction to General, Organic and Biochemistry II 5

Prerequisite Units Required 31-34

**Requirements**

- HTEC 80A Clinical Hematology Lecture 4.5
- HTEC 80 Clinical Hematology Laboratory 1.5
- HTEC 81A Clinical Urinalysis Lecture 1.5
- HTEC 81 Clinical Urinalysis Laboratory 0.75
- HTEC 82A Clinical Coagulation Lecture 1.5
- HTEC 82 Clinical Coagulation Laboratory 0.75
- HTEC 83A Clinical Microbiology Lecture 4.5
- HTEC 83 Clinical Microbiology Laboratory 1.5
- HTEC 84A Clinical Immunology/Immunochemistry Lecture 4.5
- HTEC 84 Clinical Immunology/Immunochemistry Laboratory 1.5
- HTEC 85A Clinical Chemistry I Lecture 4.5
- HTEC 85A Clinical Chemistry I Laboratory 1.5
- HTEC 85D Clinical Chemistry II Lecture 4.5
- HTEC 85D Clinical Chemistry II Laboratory 1.5
- HTEC 85B Clinical Chemistry II Laboratory 1.5
- HTEC 180 Clinical Hematology/Urinalysis/Coagulation Practicum 4.5
- HTEC 183 Clinical Microbiology Practicum 6
- HTEC 184 Clinical Immunology/Immunochemistry Practicum 6
- HTEC 185 Clinical Immunology/Immunochemistry Practicum 4.5

Total Units Required (Incl. Prereqs.) .. 88-91

**Student Learning Outcomes - upon completion, students will be able to:**

- pass a state approved national medical laboratory certification exam.

For the major, complete the same prerequisites and requirements listed for the Medical Laboratory Technology Certificate of Achievement-Advanced (see above), and meet De Anza's A.A./A.S. degree requirements.

**Music**

**A.A. Degree**

This degree program provides a foundation in music for students interested in a career in the musical entertainment industry or pursuing a baccalaureate degree in Music. Students are encouraged to take private instruction (not provided by the college) each term along with classes in their specialization.

**Student Learning Outcomes - upon completion, students will be able to:**

- demonstrate, through successful public performance, a synthesis of technique, memory, musicality and stage presence in both group and solo presentations.
- demonstrate proficiency equivalent to national lower division curriculum standards in music literacy for all historical periods, ear training and keyboard harmony.
- distinguish musical cultures, historical periods, forms and composers from each other while demonstrating an understanding of the roles of music in human culture.
- produce, notate, and perform music using contemporary technologies.

Meet the A.A./A.S. degree requirements and complete the following.

**Advisory**

MUSI 10A or qualifying score on the Music placement examination. Music placement examination offered upon request or during the first day of class in MUSI 3A.

**Requirements**

- MUSI 3A Comprehensive Musicianship 4
- MUSI 3B Comprehensive Musicianship 4
- MUSI 3C Comprehensive Musicianship 4
- MUSI 4A Comprehensive Musicianship II 4
- MUSI 4B Comprehensive Musicianship II 4
- MUSI 4C Comprehensive Musicianship II 4

NOTE: MUSI 3A and 4A offered Fall quarter only; MUSI 3B and 4B offered Winter quarter only; MUSI 3C and 4C offered Spring quarter only.

Complete one (1) course from the following:

- MUSI 1A Introduction to Music: Western Cultures (4)
- MUSI 1B Introduction to Music: Jazz Styles (4)
- MUSI 1C Introduction to Music: World Music (4)
- MUSI 1D Introduction to Music: Rock - From Roots to Rap (4)
- MUSI 1E Introduction to Music: Latin America and the Caribbean (4)

**Medical Laboratory Technology**

**A.A. Degree**

The Associate degree in Medical Laboratory Technology is a 24-month course of study (including summers) that prepares students for a career as a Medical Laboratory Technician through classroom study and supervised clinical training. The MLT Program provides students with a quality education that complies with the established standards and guidelines of an accredited laboratory training program. Graduates of the degree program are eligible to sit for a state approved national MLT certification examination.
Complete 12 units min. from the following (choral or instrumental):

- MUSI 15A Guitar Ensemble I (2)
- MUSI 15B Guitar Ensemble II (2)
- MUSI 20 De Anza Chorale (2)
- MUSI 21 Vintage Singers (2)
- MUSI 22 Early Music Study and Performance (2)
- MUSI 24 Women’s Chorus (2)
- MUSI 27 Vocal Jazz Ensemble (2)
- MUSI 31 Chamber Orchestra (2)
- MUSI 34 Jazz Ensemble (2)
- MUSI 42 Symphonic Wind Ensemble (2)
- MUSI 45 Jazz Combos (2)

Complete a minimum of six (6) units from the following:

- MUSI 5A Modal Counterpoint (3)
- MUSI 8 Intermediate Electronic Music (3)
- MUSI 9A Jazz Piano I (1.5)
- MUSI 69B Jazz Piano II (1.5)
- MUSI 69C Jazz Piano III (1.5)
- MUSI 12A Class Piano I (1.5)
- MUSI 12B Class Piano II (1.5)
- MUSI 12C Class Piano III (1.5)
- MUSI 13A Beginning Singing I (1.5)
- MUSI 13B Beginning Singing II (1.5)
- MUSI 14A Classical Guitar I (1.5)
- MUSI 14B Classical Guitar II (1.5)
- MUSI 14C Classical Guitar III (1.5)
- MUSI 54D Classical Guitar IV (1.5)
- MUSI 16 Jazz Blues and Popular Guitar (1.5)
- MUSI 18 Intermediate Piano (1.5)
- MUSI 32A Jazz Solo Voice I (1.5)
- MUSI 32B Jazz Solo Voice II (1.5)
- MUSI 51 Introduction to Electronic Music (3)
- MUSI 53 The Music Business (3)
- MUSI 58A African and African-Influenced Percussion and Rhythms (1.5)
- MUSI 58B Intermediate African and African-Influenced Percussion and Rhythms (1.5)
- MUSI 48A Jazz Improvisation I (1.5)
- MUSI 68B Jazz Improvisation II (1.5)
- MUSI 68C Jazz Improvisation III (1.5)
- MUSI 77 series MUSI 77, 77X, 77Y Special Projects in Music (1-3)

Major Music 46 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ......................... 90 units

Nursing

LVN Transition to Registered Nurse

A.S. Degree

Admission to the program is limited. The Licensed Vocational Nurse (LVN) Transition to Registered Nurse (RN) Program is a minimum of three (3) quarters in length, not including summer. LVN Transition to RN students enter the Registered Nursing program as advanced placement students as determined by the Director of the Nursing Program. Prior clinical experience in an acute setting will influence student’s placement in the program. Admission to the program depends on space availability. The majority of courses are held in the daytime. Current California LVN license and IV certification is required.

Graduates of this program are eligible to take the California State Board Examination for licensing (NCLEX-RN). Students are admitted throughout the year as advanced placements. Once admitted, the program is at least three (3) quarters in length (not including prerequisites).

Student Learning Outcomes - upon completion, students will be able to:
- take the professional licensure exam for Registered Nurse (NCLEX).
- provide competent nursing care as a novice RN in multiple health care settings.

Admission Criteria

Admission to the program is limited and based on the following:
- Completion of all prerequisites with the minimum grade requirements specified below.
- Completion of a Nursing Program application.
- Current California Vocational Nurse License.
- Intravenous Certification.
- Evidence of good health.
- Background check and drug testing prior to entry into the program. Clinical sites may limit student participation depending on findings, which may prevent the student from completing the graduation requirements.
- A minimum 75% academic record calculation using the Chancellor's Formula (see the Nursing Program web site).
- Passing result on the Admission Assessment Exam.
- Social Security card allowing employment in the U.S.

Prerequisites

These two (2) prerequisites or their equivalents must be completed with a “C” grade or better:

- MATH 114 Intermediate Algebra 5
- Complete MATH 114, its equivalent or higher level mathematics, or get a qualifying score for MATH 114 on De Anza’s mathematics assessment test.
- Either ANTH 2 or SOC 1: 4
- ANTH 2 Cultural Anthropology (4)
- SOC 1 Introduction to Sociology (4)
- These nine (9) prerequisites or their equivalents must be completed with a “C” grade or better:
- BIOL 40A* Human Anatomy and Physiology 5
- BIOL 40B* Human Anatomy and Physiology 5
- BIOL 40C* Human Anatomy and Physiology 5
- BIOL 26* Introductory Microbiology 6
- BIOL 45* Introduction to Human Nutrition 4
- PSYC 1 General Psychology 4
- PSYC 14 Developmental Aspects of Psychology 4
- Either EWRT 1A or ESL 5^: 5
- EWRT 1A Composition and Reading (5)
- ESL 5 ESL: Advanced Composition & Reading (5)
- Either SPCH 1 or SPCH 10: 4
- SPCH 1 Public Speaking (4)
SPCH 10  Fundamentals of Oral Communication (4)

*Course must be completed within seven (7) years of nursing program admission screening.

^ ESL 5 restricted to students whose native language is not English.

Requirements
Admitted students complete the major courses and the Nursing General Education requirements to earn the degree.

Major Requirements - complete the following with a “C” grade or better*:

NURS 85A  Psychiatric/Mental Health Nursing  2
NURS 85AL Psychiatric/Mental Health Nursing (Clinical)  2.5
NURS 85  Advanced Medical/Surgical Concepts  2
NURS 85L Advanced Medical/Surgical Concepts (Clinical)  2.5
NURS 86  Leadership/Management in Nursing  2
NURS 86L Leadership/Management in Nursing (Clinical)  5

Total Units Required, Including Prerequisites .............................. 67

Recommended: NURS 150W Nursing Laboratory Skills

*Fewer or more major courses from the RN curriculum may be required at the discretion of the Executive Head of the Nursing program depending on the student's previous education.

Nursing A.S. Degree General Education Requirements - complete the following with a minimum 2.0 GPA:

- One (1) course from GE Area C1 - Arts (4 units)
- One (1) course from GE Area C2 - Humanities (4 units)
- One (1) unit from GE Area E in PE or PEA activities
- One (1) Intercultural Studies course taken in Area C or D

Note: A.S. Degree General Education Areas A, B, and D are satisfied through completion of the prerequisites and major courses.

See the Nursing Program Web site for application guidelines and materials: www.deanza.edu/nursing

District Non-Discrimination Policy
It is the policy of the Foothill-De Anza Community College District not to discriminate on basis of race, sex, physical handicap, religion, color, creed, national origin, sexual orientation or age in any of its educational and employment programs and activities, its policies, practices and procedures.

Registered Nurse (RN)

A.S. Degree

Admission to the program is limited. The RN Program starts every quarter except summer quarter and it is six (6) quarters in length. Nursing classes are generally not offered in the summer. The majority of courses are held in the daytime.

The Associate Degree Nursing program is accredited by the California Board of Registered Nursing. The RN graduate is eligible to take the California State Board Examination for licensing (NCLEX-RN). Students are admitted to this program during the fall, winter and spring quarters. Once admitted, the program is six (6) quarters in length (not including prerequisites).

Student Learning Outcomes - upon completion, students will be able to:
- take the professional licensure exam for Registered Nurse (NCLEX).
- provide competent nursing care as a novice RN in multiple health care settings.

Admission Criteria
Admission to the program is limited and based on the following:
- Completion of all prerequisites with the minimum grade requirements specified below.
- Completion of a nursing program application.
- Evidence of good health.
- Background check and drug test (two times each): once each prior to entry into the program and once each prior to beginning Quarter 4 of the program. Clinical sites may limit student participation depending on findings, which may prevent the student from completing the graduation requirements.
- A minimum 75% academic record calculation using the Chancellor’s Formula (see the Nursing Program web site).
- Passing result on the Admission Assessment Exam.
- Social Security card allowing employment in the U.S.

Prerequisites
The eleven (11) prerequisites in this section will be used for screening and admission into the RN program.

The following two (2) prerequisites must be completed with a passing grade of “C” or better/“P”(Pass):

NURS 50  Career Opportunities in Nursing (must be completed at De Anza)  2
MATH 114 Intermediate Algebra  5

Complete MATH 114, its equivalent or higher level mathematics, or get a qualifying score for MATH 114 on De Anza's mathematics assessment test.

The following nine (9) prerequisites or their equivalents must be completed with a “C” grade or better.

Biol 40A*  Human Anatomy and Physiology  5
Biol 40B*  Human Anatomy and Physiology  5
Biol 40C*  Human Anatomy and Physiology  5
Biol 26*  Introductory Microbiology  6
Biol 45*  Introduction to Human Nutrition  4
Psyc 1  General Psychology  4
Psyc 14  Developmental Aspects of Psychology  4

Either EWRT 1A or ESL 5* :
EWRT 1A  Composition and Reading (5)
ESL 5  ESL: Advanced Composition & Reading (5)  5

Either SPCH 1 or SPCH 10:
SPCH 1  Public Speaking (4)
SPCH 10  Fundamentals of Oral Communication (4)  4
*Course must be completed within seven (7) years of nursing program admission screening.

^ ESL 5 restricted to students whose native language is not English.

**Prerequisite/Corequisite**

Complete one (1) of the following or its equivalent with a “C” grade or better and before or during the first quarter of the RN Program:

- ANTH 2 Cultural Anthropology (4)
- SOC 1 Introduction to Sociology (4)

**Prerequisite Units Required** ........................................... 53

**Requirements**

Admitted students complete the major courses and the Nursing General Education requirements to earn the degree.

**Major Requirements**

Complete with a “C” grade or better:

- NURS 81 Fundamental Nursing (Non Acute/ Sub Acute Care) .......................... 4
- NURS 81L Fundamental Nursing (Non Acute/ Sub Acute Care Clinical) .................. 5
- NURS 81P Pharmacology I ................. 1.5
- NURS 82 Acute Fundamentals/Medical Surgical I ........................................... 4
- NURS 82L Acute Fundamentals/Medical Surgical I (Clinical) .................. 5
- NURS 82P Pharmacology II .................. 1.5
- NURS 83 Perinatal Nursing .................. 2
- NURS 83L Perinatal Nursing (Clinical) ............... 2.5
- NURS 83A Pediatric Nursing ................. 2
- NURS 83AL Pediatric Nursing (Clinical) ........... 2.5
- NURS 83P Pharmacology III ................. 1.5
- NURS 83PL Pharmacology III Lab ............. 0.5
- NURS 84 Medical/Surgical II (Care of the Older Adult) ..................................... 4
- NURS 84L Medical/Surgical II (Care of the Older Adult Clinical) .................. 5
- NURS 84C Critical Thinking in Nursing ............... 2
- NURS 85 Advanced Medical/Surgical Concepts ............... 2
- NURS 85L Advanced Medical/Surgical Concepts (Clinical) .................. 2.5
- NURS 85A Psychiatric/Mental Health Nursing ............... 2
- NURS 85AL Psychiatric/Mental Health Nursing (Clinical) .................. 2.5
- NURS 86 Leadership/Management in Nursing ........................................... 2
- NURS 86L Leadership/Management in Nursing (Clinical) .................. 5

**Total Units Required, Including Prerequisites** ....................... 111

Recommended: NURS 150,150W Nursing Laboratory Skills (0.5 - 1)

**Nursing A.S. Degree General Education Requirements**

Complete with a minimum 2.0 GPA:

- One (1) course from GE Area C1 - Arts (4 units)
- One (1) course from GE Area C2 - Humanities (4 units)
- One (1) unit from GE Area E in PE or PEA activities
- One (1) Intercultural Studies course taken in Area C or D

Note: A.S. Degree General Education Areas A, B, and D are satisfied through completion of the prerequisites and major courses.

**Additional Information**

**California Nursing Assistants**

Students with a current California Nursing Assistant Certificate who complete the required criteria for entrance into the Registered Nursing Program and are admitted to the program may take the following courses in place of NURS 81 and NURS 81L at the discretion of the Executive Head of the Nursing Program:

- NURS 81N CNA Transition (Non Acute/Sub Acute Care) (3)
- NURS 81NL CNA Transition (Non Acute/Sub Acute Care Clinical) (2)

Advanced placement due to prior nursing education

The student must first complete the screening requirements for entrance into the Registered Nursing Program and be admitted to the program. Placement is done on a space-available basis only after equivalency of previous nursing education has been evaluated by the Executive Head of the Nursing Program.

For LVN students transitioning to the RN Program, see the LVN Transition to RN curriculum.

**District Non-Discrimination Policy**

It is the policy of the Foothill-De Anza Community College District not to discriminate on basis of race, sex, physical handicap, religion, color, creed, national origin, sexual orientation or age in any of its educational and employment programs and activities, its policies, practices and procedures.

See the Nursing Program Web site for application guidelines and materials: www.deanza.edu/nursing

**Paralegal Studies**

**Information for Paralegal Studies Students**

The Paralegal Studies Program at De Anza College is approved by the American Bar Association. The primary goal of the program is to educate students for positions as paralegals where they can demonstrate the competency and ethical standards demanded of the profession. The program’s specific objectives are:

1. Provide paralegal students with a well-rounded, balanced education founded on a beneficial mix of general education and legal education including theory and practical courses, and stressing understanding and reasoning rather than rote learning of facts.
2. Develop in paralegal students an understanding of the basic organization and operation of the federal and California state legal systems.
3. Promote the development of paralegals who understand and appreciate the role of and ethical responsibilities of paralegals in the legal field.
4. Develop in paralegal students the following practical skills:
   a. Written and oral communication skills
   b. Ability to do basic legal research, including computer-assisted legal research, demonstrating familiarity with both federal and state research tools
   c. Ability to do basic legal writing including office correspondence, interoffice memoranda, and memoranda of law
   d. In-depth knowledge and ability to function in the area of civil litigation including the ability to draft documents such as pleadings and motions
   e. Sufficient familiarity in one or more areas of law to function as a paralegal working in that substantive area

Paralegals cannot give legal advice, appear in court, or otherwise engage in the unauthorized practice of law. The practice of law by non-attorneys is strictly prohibited by law.

Paralegal Studies

Certificate of Achievement-Advanced
   A.A. Degree
The Paralegal Studies certificate and degree programs prepare students to work in the legal field as paralegals under the supervision of attorneys. Paralegal duties include performing factual and legal research, drafting legal documents and correspondence, interviewing clients and witnesses, assisting attorneys in pretrial work, including document discovery and analysis, and at trials and hearings, organizing and maintaining case files and coordinating the use of technology in legal work.

Student Learning Outcomes - upon completion, students will be able to:
   • evaluate, critique and analyze legal and factual information.
   • synthesize and analyze legal and factual information through effective written and oral communication.
   • compare and contrast the American and California legal systems within a global legal environment.
   • research legally relevant facts from diverse source materials.
   • assess the quality of information and utilize appropriate informational resources to evaluate a legal issue.

Certificate of Achievement-Advanced
For a Certificate of Achievement-Advanced, students must have an A.A./A.S. degree or higher, complete the required 46 units listed below for the Paralegal Studies A.A. Degree, and meet the requirements for this certificate level.

A.A. Degree
Complete the following and meet the A.A./A.S. degree requirements.
   PARA 86 Legal Analysis 4
   PARA 88 The Paralegal and Professional Responsibility 2
   PARA 92A Partnerships and Corporations 4
   PARA 94 Introduction to California Law 4
   PARA 95 Overview of American Law 4
   PARA 96A Introduction to Legal Research and Writing 4
   PARA 97A Civil Litigation Procedures 4
   PARA 97B Advanced Civil Litigation Procedures 4

Complete a minimum of 12 units from these major elective courses:
   PARA 65 series PARA 65W, 65X, 65Y, 65Z
   Current Paralegal Topics (1-4)
   PARA 84 Trial Preparation (4)
   PARA 85 Intellectual Property Law (4)
   PARA 87 Personal Injury and Tort Litigation (4)
   PARA 89 Landlord Tenant Law (4)
   PARA 91A California Family Law (4)
   PARA 92B Corporate Securities Regulations (4)
   PARA 93 Bankruptcy Law (4)
   PARA 96B Advanced Legal Research and Writing (4)
   PARA 96C Computer Assisted Legal Research/Investig. (4)
   PARA 98 Drafting Wills and Trusts (4)
   PARA 99 California Probate Law and Procedures (4)

Complete a minimum of four (4) additional units from the above major elective course list or the following courses:
   ADMJ 61 Criminal Investigation (4)
   BUS 18 Business Law I (5)
   ES 6 Introduction to Environmental Law (4)
   ICS 29 Cultural Pluralism and American Law and Justice (4)
   LIB 51 Business Resources on the World Wide Web (1)
   PARA 3 Concepts of Criminal Law (4)
   PARA 11 Federal Courts and Constitutional Law (4)
   PARA 25 Law and Social Change (4)
   REST 52A Legal Aspects of Real Estate in California I (4)
   PARA 54 Youth and the Law (4)
   PARA 64 series PARA 64, 64X, 64Y, 64Z
   Paralegal Internship (1-4)
   PARA 69 Paralegal Field Trips (1.5)
   PARA 74A Interviewing, Interrogation and Crisis Intervention (4)
   PARA 75 Principles and Procedures of the Justice System (4)
   PARA 90A Legal Aspects of Evidence (4)

Major Paralegal Studies 46 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required ........................ 90 units

Photographic Arts
(Film and Digital)

A.A. Degree
This degree provides a comprehensive foundation in contemporary and traditional methods of photography. Digital imaging, traditional processing and printing, alternative processes, lighting, history and the visual language of photography are studied. Emphasis is on personal expression through creative process and technical excellence.

Student Learning Outcomes - upon completion, students will be able to:
   • demonstrate accomplished skill in both dry (digital) and wet (analog) darkroom methods.
Student Learning Outcomes - upon completion, students will be able to:

• create photographs that visually communicate ideas and concepts while engaging in the practices, theories and materials of the medium.
• critically analyze and assess diverse historical and contemporary photographic works.
• present finished photographic works for peer, professional or academic review.
• express artistic concepts and intent in written and oral formats.
• evaluate and critique photographic artwork and receive criticism from others.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

F/TV 20 Basic Digital Film/Video Production 4
PHTG 1 Basic Photography 3
PHTG 4 Introduction to Digital Photography 3
PHTG 5 Intermediate Digital Photography 3

Complete two (2) courses from:

PHTG 2 Intermediate Photography (3)
PHTG 3 Advanced Photography (3)
PHTG 54 Experimental Photography (3)
PHTG 57A Commercial Lighting I (3)

Complete one (1) course from:

PHTG 20 History of Early Photography from Its Beginnings to 1925 (4)
PHTG 21 Contemporary Trends in Photography (4)

Complete one (1) course from:

ARTS 1A Introduction to the Visual Arts (4)
ARTS 2D History of Art (Post-Impressionism to the Present) (4)
ARTS 2F History of Art (Multicultural Arts in the United States) (4)
ARTS 3TE Today's Art Scene (4)

Complete one (1) course from the following:

ARTS 4A Beginning Drawing (3)
ARTS 10A Three-Dimensional Design (3)
ARTS 14A Watercolor Painting I (3)
ARTS 15A Acrylic Painting I (3)
ARTS 16A Oil Painting I (3)
ARTS 18A Ceramics (3)
ARTS 37A Sculpture (3)

Complete a minimum of 11 units from the following that do not duplicate courses selected above:

ARTS 53A Introduction to Visual Technology (3)
ARTS 53B Introduction to Visual Technology (3)
ARTS 55A Graphic Design - Communication (3)
F/TV 2A History of Cinema (1895-1950) (4)
F/TV 2B History of Cinema (1950-Present) (4)
F/TV 50 Introduction to Film/Television Directing (4)
F/TV 55A Video Studio Production (4)
HUMI 1 Creative Minds (4)
HUMI 2 But Is It Art? Questions & Criticism (4)
HUMI 15 Discussion on the Arts (4)

PHTG 2 Intermediate Photography (3)
PHTG 3 Advanced Photography (3)
PHTG 4 Introduction to Digital Photography (3)
PHTG 5 Intermediate Digital Photography (3)
PHTG 7 Exploring Visual Expression (4)
PHTG 20 History of Early Photography from Its Beginnings to 1925 (4)
PHTG 21 Contemporary Trends in Photography (4)
PHTG 54 Experimental Photography (3)
PHTG 57A Commercial Lighting I (3)
PHTG 57B Commercial Lighting II (3)
PHTG 58A Photographic Photoshop I (3)
PHTG 58B Photographic Photoshop II (3)
PHTG 77 Special Projects in Photography (2)
PHTG 78 series PHTG 78X, 78Y, 78Z

Major
Photographic Arts 41 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required ................................ 90 units
Professional Photography
A.A. Degree
This degree program provides a comprehensive foundation in contemporary and traditional methods of photography. Digital imaging, processing and printing, lighting, history, business practices, and the visual language of photography are studied. Emphasis is on the photography techniques appropriate for those entering the industry today.

Student Learning Outcomes - upon completion, students will be able to:
• demonstrate advanced skills in both dry (digital) and wet (analog) darkroom methods as well as commercial studio techniques.
• create photographs that visually communicate ideas and concepts while engaging the practices, theories and materials of the medium.
• critically analyze and assess diverse historical and contemporary photographic works.
• present commercially viable photographic works for peer, professional or academic review.
• demonstrate understanding of basic business principles and relevant industry practices.
• communicate effectively in written and oral formats.

Meet the A.A./A.S. degree requirements and complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 53A</td>
<td>Introduction to Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>BUS 56</td>
<td>Human Relations in Business</td>
<td>5</td>
</tr>
<tr>
<td>F/TV 20</td>
<td>Basic Digital Film/Video Production</td>
<td>4</td>
</tr>
<tr>
<td>JOUR 2</td>
<td>Mass Communication and Its Impact on Society</td>
<td>4</td>
</tr>
<tr>
<td>PHTG 1</td>
<td>Basic Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 4</td>
<td>Introduction to Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 5</td>
<td>Intermediate Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 57A</td>
<td>Commercial Lighting I</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 58A</td>
<td>Photographic Photoshop I</td>
<td>3</td>
</tr>
<tr>
<td>F/TV 50</td>
<td>Introduction to Film/Television Directing</td>
<td>4</td>
</tr>
<tr>
<td>PHTG 2</td>
<td>Intermediate Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 3</td>
<td>Advanced Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 7</td>
<td>Exploring Visual Expression</td>
<td>4</td>
</tr>
<tr>
<td>PHTG 20*</td>
<td>Early History of Photography from Its Beginnings to 1925</td>
<td>4</td>
</tr>
<tr>
<td>PHTG 21*</td>
<td>Contemporary Trends in Photography</td>
<td>4</td>
</tr>
<tr>
<td>PHTG 52</td>
<td>Photography Production Lab</td>
<td>1</td>
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<tr>
<td>PHTG 54</td>
<td>Experimental Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 57B</td>
<td>Commercial Lighting II</td>
<td>3</td>
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<tr>
<td>PHTG 58B</td>
<td>Photographic Photoshop II</td>
<td>3</td>
</tr>
<tr>
<td>PHTG 77</td>
<td>Special Projects in Photography</td>
<td>2</td>
</tr>
<tr>
<td>PHTG 78 series</td>
<td>PHTG 78X, 78Y, 78Z</td>
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<tr>
<td></td>
<td>Special Topics in Photographic Studies (1-3)</td>
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</tr>
</tbody>
</table>

Total Units Required .................................... 90 units

Recommended
ARTS 8, BUS 10, BUS 55, other Photography courses, HUMI 1 or 2

Political Science

Associate in Arts in Political Science for Transfer
A.A.-T. Degree
The Political Science major consists of courses appropriate for an Associate in Arts in Political Science for Transfer degree, which provides a foundational understanding of the discipline, a breadth of coursework in the discipline, and preparation for transfer to any CSU that accepts the Transfer Model Curriculum (TMC). Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcomes - upon completion students will be able to:
• evaluate how political decisions are shaped by institutions and processes.
• assess the impact of political decisions on individuals and groups.
• demonstrate the capacity to critically analyze and apply political values.
• demonstrate the capacity to participate effectively in the political process.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLI 1</td>
<td>American Government and Politics</td>
<td>4</td>
</tr>
<tr>
<td>Complete three (3) courses from the following:</td>
<td>12-13</td>
<td></td>
</tr>
<tr>
<td>POLI 2</td>
<td>Comparative Politics</td>
<td>4</td>
</tr>
<tr>
<td>POLI 3</td>
<td>International Relations</td>
<td>4</td>
</tr>
<tr>
<td>POLI 5</td>
<td>Intro. to Political Thought and Theory</td>
<td>4</td>
</tr>
<tr>
<td>MATH 10*</td>
<td>Elementary Statistics and Probability</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 15*</td>
<td>Basic Statistics and Research Methods in Social and Behavioral Sciences</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>also listed as SOC 15</td>
<td></td>
</tr>
</tbody>
</table>

* Only one of these two courses may apply.

Complete three (3) courses from the following: 12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLI 15</td>
<td>Grassroots Democracy: Race, Politics and the American Promise</td>
<td>4</td>
</tr>
<tr>
<td>POLI 16</td>
<td>Grassroots Democracy: Social Movements Since the 1960s</td>
<td>4</td>
</tr>
<tr>
<td>POLI 17</td>
<td>Grassroots Democracy: Leadership and Power</td>
<td>4</td>
</tr>
<tr>
<td>POLI 30</td>
<td>Women, Gender and Politics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>also listed as WMST 30</td>
<td></td>
</tr>
<tr>
<td>POLI 33</td>
<td>Introduction to Peace and Conflict Studies</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>also listed as INTL 33</td>
<td></td>
</tr>
</tbody>
</table>

GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
ADMJ 29 Cultural Pluralism and American Law and Justice (4)
also listed as ICS 29
ANTH 2 Cultural Anthropology (4)
ECON 1 Principles of Macroeconomics (4)
ECON 2 Principles of Microeconomics (4)
ES 1 Introduction to Environmental Studies (4)
GEO 10 World Regional Geography (4)
HIST 3C World History (4)
ICS 4 Race, Ethnicity, and Inequality (4)
also listed as SOC 4
ICS 17 Critical Consciousness and Social Change (4)
also listed as PHIL 17
ICS 55 Civic Leadership for Community Empowerment (4)
PHIL 10 Philosophy of Democracy (4)
SOC 5 Sociology of Globalization and Social Change (4)

Major Political Science for Transfer 28-29 units
Transfer GE CSU GE or IGETC for CSU pattern (47-61)
Electives CSU-transferrable elective courses required
when the major units plus transfer GE units total is less than 90
Total Units Required ........................... 90 units

1. Meet the requirements for this certificate level.
2. Complete the following.

CIS 95A Project Management - A Practicum 5
CIS 95B Project Planning and Control - A Practicum 4
CIS 95C Risk Assessment and Mitigation - A Practicum 4
CIS 95D Managing Outsourcing - A Practicum 3

Complete one (1) course from the following: 3-5
CIS 79 Managing Technology Projects (4.5)
CIS 80A Process Management (3)
CIS 95E CAPM and PMP Exam Preparation (4)

Total Units Required ............................ 19-21

Real Estate
Certificate of Achievement-Advanced
A.A. Degree
The certificate and degree programs in Real Estate provide the student with a thorough understanding of the California residential real estate market from a buyer’s, seller’s and real estate professional’s perspective. In addition, students completing the program meet the minimum requirements to sit for the California Real Estate Sales License and Broker’s exam.

Student Learning Outcomes - upon completion, students will be able to:
• demonstrate knowledge of how real property is described, acquired, appraised, financed, encumbered and leased and how title to real property is held in California.
• demonstrate knowledge of the risks, returns, legal issues and ethical issues involved in the purchase, holding and sale of California real estate.
• qualify to take the California Department of Real Estate salesperson and broker examinations.

Certificate of Achievement-Advanced
1. Meet the requirements for this certificate level.
2. Complete the following.

BUS 18 Business Law I 5
REST 50 Real Estate Principles 4
REST 51 Real Estate Practices 4
REST 53 Real Estate Finance 4
REST 56A Real Estate Appraisal I 4

Complete a minimum of 16 units from the following: 16
ACCT 1A Financial Accounting I (5)
BUS 10 Introduction to Business (5)
REST 52A Legal Aspects of Real Estate in California I (4)
REST 54 Real Estate Economics (4)
REST 59 Survey of Real Estate Property Management (4)
REST 61 Real Estate Investments (4)

Total Units Required ........................... 37

Project Management Practitioner
Certificate of Achievement
This certificate program is designed for individuals who want to become project managers in their respective industries. Project Management is an important responsibility as more organizations use teams and project-based methods to get work done.

Using a practicum-based approach, students apply the Project Management Book of Knowledge (PMBOK) to develop skills to enhance teamwork and communication, and project management skills to balance scope, quality, budget and scheduling for each project.

This certificate program introduces students to a career in project management and further prepares professionals who are already working in the field.

Student Learning Outcomes - upon completion, students will be able to:
• manage projects by applying Project Management Theory as defined by the Project Management Institute’s (PMI) Project Management Book of Knowledge (PMBOK).
• lead the creation of a project plan for an organization’s large-scale project with a large budget.
• apply risk management techniques to a project to balance scope, quality, budget, scheduling and team morale.
• write a vendor solicitation plan and use a collaborative approach for selecting vendors.
• successfully manage a vendor through a project’s completion while providing all project participants with a clear picture of scope, quality, budget and schedule.
A.A. Degree
1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 10</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law I</td>
<td>5</td>
</tr>
<tr>
<td>REST 50</td>
<td>Real Estate Principles</td>
<td>4</td>
</tr>
<tr>
<td>REST 51</td>
<td>Real Estate Practices</td>
<td>4</td>
</tr>
<tr>
<td>REST 53</td>
<td>Real Estate Finance</td>
<td>4</td>
</tr>
<tr>
<td>REST 56A</td>
<td>Real Estate Appraisal I</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete a minimum of 16 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 69</td>
<td>Investment Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>REST 52A</td>
<td>Legal Aspects of Real Estate in California I</td>
<td>4</td>
</tr>
<tr>
<td>REST 54</td>
<td>Real Estate Economics</td>
<td>4</td>
</tr>
<tr>
<td>REST 59</td>
<td>Survey of Real Estate Property Management</td>
<td>4</td>
</tr>
<tr>
<td>REST 61</td>
<td>Real Estate Investments</td>
<td>4</td>
</tr>
</tbody>
</table>

Major Real Estate 47 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90

Total Units Required ........................ 90 units

Recommended courses for certificate and degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1B</td>
<td>Financial Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 1C</td>
<td>Managerial Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 67</td>
<td>Federal Income Tax</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 86</td>
<td>Computer Accounting Systems</td>
<td>4</td>
</tr>
<tr>
<td>BUS 21</td>
<td>Business and Society</td>
<td>5</td>
</tr>
<tr>
<td>BUS 54</td>
<td>Business Mathematics</td>
<td>5</td>
</tr>
<tr>
<td>BUS 55</td>
<td>Introduction to Entrepreneurship</td>
<td>5</td>
</tr>
<tr>
<td>BUS 69</td>
<td>Investment Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>BUS 70</td>
<td>Principles of E-Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 90</td>
<td>Principles of Marketing</td>
<td>5</td>
</tr>
<tr>
<td>BUS 87</td>
<td>Introduction to Selling</td>
<td>4</td>
</tr>
<tr>
<td>BUS 90</td>
<td>Principles of Marketing</td>
<td>5</td>
</tr>
</tbody>
</table>

For more program information see the California Department of Real Estate web site: www.dre.ca.gov

Important information about the California Real Estate Appraiser’s License
Real Estate courses at De Anza College are not designed to meet the general education requirements of the California Real Estate Appraiser’s Licensing and Certification program. For further information, students interested in these licenses should contact the State of California Office of Real Estate Appraisers or go to their Web site at www.orea.ca.gov.

Sociology

Associate in Arts in Sociology for Transfer A.A.-T. Degree
The Sociology major consists of courses appropriate for an Associate in Arts in Sociology for Transfer degree, which provides a foundational understanding of the discipline, a breadth of coursework in the discipline, and preparation for transfer to any CSU that accepts the Transfer Model Curriculum (TMC). Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcomes - upon completion students will be able to:
- apply the sociological imagination to analyze and evaluate real world situations and problems.
- demonstrate the above capacity (first outcome) in written or oral communication.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>4</td>
</tr>
<tr>
<td>SOC 15</td>
<td>Basic Statistics and Research Methods in Social and Behavioral Sciences</td>
<td>4</td>
</tr>
<tr>
<td>SOC 20</td>
<td>Social Problems</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete three (3) courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 4</td>
<td>Race, Ethnicity, and Inequality</td>
<td>4</td>
</tr>
<tr>
<td>SOC 28</td>
<td>Sociology of Women and Men</td>
<td>4</td>
</tr>
<tr>
<td>SOC 35</td>
<td>Marriage, Family and Intimate Relationships</td>
<td>4</td>
</tr>
<tr>
<td>SOC 50</td>
<td>Crime, Correction and Society</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 8</td>
<td>Introduction to Social Psychology</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete one (1) course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 8</td>
<td>Sociology of Religion</td>
<td>4</td>
</tr>
<tr>
<td>SOC 25</td>
<td>Law and Social Change</td>
<td>4</td>
</tr>
<tr>
<td>SOC 51</td>
<td>Women in Crime</td>
<td>4</td>
</tr>
<tr>
<td>SOC 54</td>
<td>Youth and the Law</td>
<td>4</td>
</tr>
<tr>
<td>SOC 73</td>
<td>Crime and Criminology</td>
<td>4</td>
</tr>
</tbody>
</table>

Major Sociology for Transfer 28 units
Transfer GE CSU GE or IGETC for CSU pattern (47-61)
Electives CSU-transferrable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required ........................ 90 units

Speech Communication

Certificate of Achievement
Students earning the Speech Communication Certificate of Achievement learn the fundamentals of the Speech Communication discipline, which include Public Speaking, Group Communication, Interpersonal Communication, Organizational Communication, Mass Communication, Argumentation, and critical thinking. This program helps students communicate better in their academic and work environments.
Student Learning Outcomes - upon completion, students will be able to:
• display increasing confidence in their ability to use a range of speaking, listening, and collaboration skills.
• design and relate messages clearly for effective and appropriate oral communication.
• analyze, evaluate and respond competently to discourse by weighing research, examining evidence, and through critical reasoning.

1. Meet the requirements for this certificate level.
2. Complete the following.

Complete one (1) course from:
- SPCH 1 Public Speaking (4)
- SPCH 10 Fundamentals of Oral Communication (4)

Complete one (1) course from:
- SPCH 8 Argumentation and Critical Inquiry in Oral Communication (4)
- SPCH 9 Argumentation: Analysis in Oral and Written Communication (5)
- SPCH 15 Critical Decision-Making in Groups (4)

Complete a minimum of 10 units from the following which do not duplicate those taken above:
- JOUR 2 Mass Communication and Its Impact on Society (4)
- SPCH 1 Public Speaking (4)
- SPCH 7 Intercultural Communication (4)
- SPCH 8 Argumentation and Critical Inquiry in Oral Communication (4)
- SPCH 9 Argumentation: Analysis in Oral and Written Communication (5)
- SPCH 10 Fundamentals of Oral Communication (4)
- SPCH 15 Critical Decision-Making in Groups (4)
- SPCH 16 Interpersonal Communication (4)
- SPCH 70* Effective Organizational Communication (4)
- SPCH 77 series SPCH 77, 77X, 77Y, 77Z
  - Special Individual Projects in Speech Communication (1-4)
- SPCH 78 series SPCH 78W, 78X, 78Y, 78Z
  - Special Topics in Speech Comm. (1-4)
  - Special Group Projects in Speech Communication (1-4)

Total Units Required .................................... 18-19

Note: up to four (4) units from SPCH 77, 78 and 79 series courses may apply.
* SPCH 70 only offered twice each year. Please check with the department for annual course schedule.

Speech Communication
A.A. Degree
De Anza's A.A. in Speech Communication is based on the ladder concept whereby students complete the core Certificate of Achievement Speech Communication courses that can transfer toward a Bachelors degree in Speech Communication. Students also develop greater knowledge and skill in expressing ideas verbally and nonverbally, learn to interpret, advocate and critically debate ideas, work productively in teams and groups, examine the role of culture in communication, and demonstrate the communication skills necessary to engage in personal, professional, civic, and social relationships. Areas of study include Public Speaking, Group Communication, Interpersonal Communication, Argumentation, Intercultural Communication, Organizational Communication, and Mass Communication. In addition to core coursework, students are required to declare a specialty area that allows them to make interdisciplinary connections and explore specific areas of interest.

Student Learning Outcomes - upon completion, students will be able to:
• display increasing confidence in ability to use a range of speaking, listening, and collaboration skills.
• design and relate messages clearly for effective and appropriate oral communication.
• analyze, evaluate and respond competently to discourse by weighing research, examining evidence, and through critical reasoning.

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

Complete one (1) course from:
- SPCH 1 Public Speaking (4)
- SPCH 10 Fundamentals of Oral Communication (4)

Complete one (1) course from:
- SPCH 8 Argumentation and Critical Inquiry in Oral Communication (4)
- SPCH 9 Argumentation: Analysis in Oral and Written Communication (5)

Complete the following:
- JOUR 2 Mass Communication and Its Impact on Society 4
- SPCH 7 Intercultural Communication 4
- SPCH 15 Critical Decision-Making in Groups 4
- SPCH 16 Interpersonal Communication 4
- SPCH 70* Effective Organizational Communication 4
- Specialty Area Coursework (contact an instructor to select) 12
* SPCH 70 only offered twice each year. Please check with the department for annual course schedule.

Total Units Required .................................... 90 units

Note: up to four (4) units from SPCH 77, 78 and 79 series courses may apply.
* SPCH 70 only offered twice each year. Please check with the department for annual course schedule.

Major Speech Communication 40-41 units
GE General Education (31-42 units)
Electives Elective courses required when major units plus GE units total is less than 90
Total Units Required .................................... 90 units

Specialty Area Coursework:
Contact a full-time Speech Communication instructor to create your specialty area of study (12 units) at least one quarter prior to completing your course of study. Your specialty area description with signed approval from the Speech Communication Department must accompany your application for the degree.
Associate in Arts in Communication Studies for Transfer

A.A.-T. Degree

The Associate in Arts in Communication Studies for Transfer is intended for students who plan to complete a bachelor’s degree in Communication Studies at a California State University (CSU) campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 (semester) units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Student Learning Outcomes - upon completion, students will be able to:

• display increasing confidence in the ability to use a range of speaking, listening, and collaboration skills.
• design and relate messages clearly for effective and appropriate oral communication.
• analyze, evaluate, and respond competently to discourse by weighing research, examining evidence, and through critical reasoning.

1. Meet the A.A./A.S. degree requirements for transfer.
2. Complete the following.

Complete one (1) course from: 4
SPCH 1 Public Speaking (4)
SPCH 10 Fundamentals of Oral Communication (4)

Complete the following:
JOUR 2 Mass Communication and Its Impact on Society 4
SPCH 7 Intercultural Communication 4
SPCH 8 Argumentation and Critical Inquiry in Oral Communication 4
SPCH 15 Critical Decision-Making in Groups 4
SPCH 16 Interpersonal Communication 4
SPCH 70* Effective Organizational Communication 4
* SPCH 70 only offered twice each year. Please check with the department for annual course schedule.

Major Communication Studies for Transfer 28 units
Transfer GE CSU GE or IGETC for CSU pattern (47-61)
Electives CSU-transferrable elective courses required when the major units plus transfer GE units total is less than 90

Total Units Required ........................ 90 units