

2/23/09

Theatre/Television Program

New General Description:

Students enrolled in Theatre and Television degrees gain self confidence, creativity and teamwork skills through class projects and performances. Theatre and Television production in the college environment allows us to create and learn through a shared artistic experience. The creation of Theatre, Performance and Television is an important cultural and social link between the Gavilan Campus and the South Valley communities.

The Theatre/Television Program at Gavilan offers three different AAs: Acting, Technical Production, and Television. Descriptions of each AA, including the PLOs for the degree are included below. All Gavilan Theatre Arts degrees require completion of the following core courses:

CORE COURSES:

THEA 1 Theatre History 3 units
THEA 2A Children's Theatre Repertory 2 units
THEA 12A Acting Techniques 3 units
THEA 13A Actor's Workshop 3
units
THEA 14 Stage Production 2 units

Core Courses Unit Total: 13 U NITS

Completion of the core courses and the additional requirements in a designated emphasis (below) will qualify students for an associate's degree*

in Acting, Technical Theatre or Television.*

Acting Option A.A. Degree

The Acting Option is designed to give a sound basic knowledge in acting and public performance. Students take a variety of courses including Theatre History (THEA1) and Stage Production (THEA 14). Gavilan offers a variety of performance related courses including Acting (THEA 12 a/b), Children's Theatre (THEA 2a/b) and Actor's Workshop (THEA 13) – our spring production course. For those interested in educational theatre, the program also offers hands on experience through the spring Arts Back in the

Classroom(ABC) Internship Program.

Acting students perfect teamwork skills and gain self confidence through projects and public performances. Acting and theatre shows us how to take risks, how to use focus and concentration, and the tremendous power of commitment to a project or a play. Studying acting allows us to change ourselves, using our own personal experiences to create new characters and existences.

The Acting option prepares you for a career in the public eye, whether onstage, in front of a classroom or television camera, or making presentations for large groups or conventions. Students completing the Acting Option are also prepared to transfer to a four year BA program in Acting or Performing Arts. Gavilan theatre art students have recently been accepted for transfer to San Jose State, Cal State Hayward and U.C. Davis.

Program Learning Outcomes

Students completing the Acting AA will demonstrate proficiency in fundamental concepts and vocabulary relating to acting through class exercises and public performances.

Students will be able to identify key movements in theatre history, and to elaborate on their social and cultural significance.

Students develop teamwork skills through class exercises, assignments and performances

Students will gain practical knowledge in both the organic creative process (in which the students participate in the creation of the performance or play) and the more traditional approaches to theatre and performance using an established or already created text.

Students will critique theatrical performances, discussing the playwright’s view and director’s interpretation of the text. Students will be able to evaluate the various technical elements of the production (costume, sets, lights & sound), to determine whether they support or detract from the production and text.

Students completing this degree will demonstrate working knowledge about the different technical and creative jobs related to theatre and theatre production.

Acting AA Degree Requirements

CORE COURSES:..... 13 units

ADDITIONAL REQUIREMENTS (11 unit minimum):

THEA 13 B-D Actor’s Workshop.....

... 3-9 units

Choose additional units from the seven courses listed below:

MUS 8A-D Beginning/Intermediate Voice (2-2-2-2 units)

THEA 7 Appreciation for Theatre (3 units)*
THEA 11 Dance and Movement for the Theatre (2 units)

Choose two of the following four courses:*

CMUN 2/THEA Oral Reading (3 units)
THEA 19 Acting for Film and Television (3 units)
THEA 2B Children's Theatre Repertory (2 units)
THEA 12B Introduction to Acting (2 units)

..... 2-8 units

Total Units for Major: minimum of 24 U NITS

Plus completion of general education requirements.

..... units vary

Total Units Required for A.A.: minimum of 60 U NITS

Technical Production Option A.A. Degree

The technical Theatre option is designed to provide a foundation for those interested in pursuing a career in Design and Technical careers in the entertainment industry, as well as those interested in becoming involved in creating live theatre in their community.

The Technical degree offers practical courses in stagecraft (THEA 14), Introduction to design (THEA 15) as well as many opportunities for students to become involved in creative process of mounting live theatrical productions and events at Gavilan. Hands on experience in technical production is emphasized in the Gavilan Theatre Arts Program, including experience in stage management, lights, sound, costume & makeup, as well as scenic painting and construction.

Career Opportunities for a graduate of the Technical Production Option include jobs at theatre facilities as well as convention and recreational centers. While most professional companies prefer further education (BAs or MAs), there are lucrative careers with the touring companies of live performances and musical events for specialists in technical theatre.

Program Learning Outcomes

Students completing this degree will demonstrate working knowledge about the different technical and creative jobs related to theatre and theatre production.

Students will demonstrate creative proficiency in designing sets, costumes, lights or sound for a Gavilan production.

Students will be able to identify key movements in theatre history, and to elaborate on their social and cultural significance.

Students develop teamwork skills through class exercises, assignments and performances

Students will be able to critique theatrical performances, evaluating the various technical elements of the production (costume, sets, lights & sound), to determine whether they support or detract from the production and text.

Technical Theatre AA Degree Requirements

CORE COURSES: 13 units

ADDITIONAL REQUIREMENTS:

Thea 15 Introduction to Design: Costume, Makeup, Set, Lights & Sound (3 units)*

Choose eight units from classes listed below:*

ART 2A/B Two Dimensional Design/Form and Color (3/3 units)

ART 8A/B Photography (3/3 units)

ART 10A/B Cultural History of Ceramics/Ceramics (3/3 units)

ART 12A/B Sculpture (2/2 units)

ART 13 Three Dimensional Design (3 units)

Any Music performance course

Any Computer Graphics & Design course

THEA 14 Stage Production (1-3 units)

THEA 7 Appreciation for Theatre(3 units)*

. 8 units*

Total Units for Major: minimum of 24 UNITS

Plus completion of general education requirements.

. units vary

Total Units Required for A.A.: minimum of 60 U NITS

Television Option A.A. Degree

The Gavilan College Theatre/Television department provides opportunities for students to participate in television production and broadcast, pursue a professional career, transfer to a four year University,, and perform live onstage and on camera. A variety of academic and activity courses are offered for a degree in Theatre Arts in Performance and in Production.

Program Learning Outcomes: After completing the Theatre Arts major with an emphasis in Television students will be able to:

- Perform confidently onstage and in front of a camera, demonstrating skill in improvisational acting.
- Discuss and critique acting performance and production values for stage,

film and television.

- Describe and perform the knowledge, skills and abilities related to the production process including: pre-production, production and post-production for television.

Television Option A.A. Degree

Course # Core Courses Unit Value

THEA 1 Theatre History 3

THEA 2 Children's Theatre 2

THEA 12A Acting:History and Practice 3

THEA 13A Actor's Workshop 3

THEA 14 Stage Production 2

Additional Requirements:

THEA 16 Television History and Practice 3

THEA 17A Television and Video Workshop 3

Thea 19 Acting for Film and Television 3

Choose one or more

THEA 17B Television and Video Workshop 3

THEA 20 Introduction to Scriptwriting 3

HUM 25A Film Production 3

Total units for the major Minimum 25-31 units

Plus completion of General Education requirements: Units Vary

Total units Required for AA Degree: Minimum of 60 Units

Description of TV Broadcast Certificate of Proficiency

The Gavilan Theatre/Television Program opens the doors for students to become producers, actors, writers, editors and directors for television/video/film production.

Students in the Gavilan Television program participate in learning experiences that teach skills in pre-production, production and post-production including: writing, acting, camera operation, editing, audio, directing in studio and field production scenarios for television

production.

The projects created and produced by students are prepared for broadcast on GavTV-Cable Channel 18, the Gavilan Educational Channel, Blip.com, You-tube and streaming on the Web. GavTV programming includes: music, theater, dance, arts, sports, news and special events. Original programs aired on the GavTV 18 are: News & Views Live!, Art is Essential, The Gavilan Hour, Gavilan Rams Football and Let's Ask Alice.

Academic pathways for an AA degree include graduating with a Theatre Arts degree with an emphasis in Television or selecting a Media Arts Degree with an emphasis in Video Arts/Technical production. A Certificate of Proficiency is an option for students in Broadcast Television after completing 17 units.

Television courses are:

THEA 16: Television History & Practice-3 units*

THEA 17a/b: Television & Video Workshop- 3 units*

THEA 18: Special Topics: GavTV Production & Post-production- 1-2 units

THEA 19: Television & Film Acting- 3 units*

THEA 06: Introduction to Audio (including Radio and podcasting)-3 units*

THEA 20: Introduction to Scriptwriting-3 units*

*applies to Certificate of Proficiency

Program Learning Outcomes: After completing the Theater Arts major with an emphasis in Television student will be able to:

- Perform confidently and safely in set-up and operation of video and audio equipment in live or live to tape studio or field production.
- Demonstrate knowledge and skills in digital editing for broadcast television.

* Students will be able to identify key movements in theatre history, and to elaborate on their social and cultural significance.

* Students develop teamwork skills through class exercises, assignments and performances

- Discuss and critique production values in film and television including: lighting, set design, make-up.
- Demonstrate and apply best practices in working on a video production crew.

Describe and perform the knowledge, skills and abilities related to the production process including: pre-production, production and post-production.

Current Catalogue listing for TV

CORE COURSES: 13 units

ADDITIONAL REQUIREMENTS:

THEA 16 Introduction to Television.
..... 3 units

THEA 17A Television and Video Workshop.
.... 3 units

THEA 17B Television and Video Workshop.
.... 3 units

Choose one:

THEA 19 Acting for Film and Television (3 units)

THEA 20 Introduction to Scriptwriting (3 units)
..... 3 units

Total Units for Major: minimum of 25 U NITS

Plus completion of general education requirements.
..... units vary

Total Units Required for A.A.: minimum of 60 U NITS

Catalogue Description for Spanish

The Spanish department at Gavilan College is committed to providing an environment that makes learning Spanish fun, exciting, yet challenging at the same time. The study of Foreign Languages not only enables a person to communicate in another language but also opens new doors to different cultures. Many of our students study Spanish to fulfill general education requirements, some study because of the need to communicate at work and many simply study Spanish for the enjoyment of learning another language.

The Spanish Department at Gavilan offers a wide range of courses for all students. Our department focuses in the areas of reading , writing, speaking and listening as well as having a basic awareness of different Hispanic cultures. The Spanish curriculum provides a program for non-native and native students who wish to (1) pursue an advanced degree in Spanish, (2) broaden a general knowledge of Spanish, (3) develop listening and speaking skills, (4) prepare for a career as a Spanish educator. Our experienced instructors create an environment that both fulfills General Education Requirements and offers students exemplary preparation for transfer into both university and vocational level programs.

Program Learning Outcomes:

Upon completion of the program, students will demonstrate

1. basic proficiency in speaking, reading and writing in Spanish.
2. ability to identify elements of Spanish: verb tenses, grammar.
3. ability to identify different Hispanic cultures, including historical periods, colloquialisms, food, dress and dialects.
4. ability to analyze and discuss Hispanic literature including authors from different Hispanic cultures.

Non-Native Speakers Option 1

A.A. Degree

SPAN 1A Elementary Spanish	5 units
SPAN 1B Elementary Spanish	5 units
SPAN 2A Intermediate Spanish	5 units
SPAN 2B Intermediate Spanish	5 units
Total Units for Major: 20 UNITS	

Plus completion of general education requirements. units
vary

Total Units Required for A.A.: minimum of 60 UNITS

Certificate of Achievement

SPAN 1A Elementary Spanish. 5 units

SPAN 1B Elementary Spanish. 5 units

SPAN 2A Intermediate Spanish 5 units

SPAN 2B Intermediate Spanish 5 units

Total Units for Certificate of Achievement: 20 UNITS

Spanish Non-Native Speakers Option 2

A.A. Degree

SPAN 1B Elementary Spanish. 5 units

SPAN 2A Intermediate Spanish 5 units

SPAN 2B Intermediate Spanish 5 units

Choose one course from following list:

SPAN 12A Spanish for Spanish Speakers (5 units)

SPAN 12B Spanish for Spanish Speakers - Intermediate/Advanced (5 units)

SPAN 23 Independent Study (3 units minimum)

. 3-5 units

Total Units for Major: 18-20 UNITS

Plus completion of general education requirements. units
vary

Total Units Required for A.A.: minimum of 60 UNITS

Certificate of Achievement

SPAN 1B Elementary Spanish. 5 units

SPAN 2A Intermediate Spanish 5 units

SPAN 2B Intermediate Spanish 5 units

Choose one course from following list:

SPAN 12A Spanish for Spanish Speakers (5 units)

SPAN 12B Spanish for Spanish Speakers - Intermediate/Advanced (5 units)

SPAN 23 Independent Study (3 units minimum)

. 3-5 units

Total Units for Certificate of Achievement: 18-20 UNITS

Spanish Non-Native Speakers Option 3

A.A. Degree

SPAN 2A Intermediate Spanish 5 units

SPAN 2B Intermediate Spanish 5 units

Choose a minimum of 8 units from following list:

SPAN 12A Spanish for Spanish Speakers (5 units)

SPAN 12B Spanish for Spanish Speakers - Intermediate/Advanced (5 units)

SPAN 23 Independent Study (2 units)

..... 8 units

Total Units for Major: 18 UNITS

Plus completion of general education requirements. units
vary

Total Units Required for A.A.: minimum of 60 UNITS

Program Description for Social Science

The Social Science Department at Gavilan empowers students explore, and change, the world. Students with social science backgrounds pursue fascinating professions, transfer to four-year colleges, and make meaningful contributions to their communities and society.

An Associate of Arts degree is available with two options—Social Science AA with Emphasis on Community Studies, and Social Science AA with Emphasis on Global Studies. Both degrees can be achieved by students who take 21-24 units in the major areas of emphasis.

Majors in Social Science with **Emphasis on Community Studies** gain durable tools to enrich and empower their communities by promoting social justice. Taking courses in anthropology, cultural geography, economics, history, political science, psychology, and sociology, students become competent to analyse, contextualize, and change local communities. They create linkages between national and global issues, movements, and ideas as they relate to local communities, and prepare both for a variety of careers and for all-important responsibilities as participants in a democracy.

Students completing this AA degree will be able to transfer to four-year colleges or enter the professional world in fields including public service, law, politics, community organizing, advocacy, media, teaching, social work, psychology, anthropology, history, urban planning, and economics.

Community Studies Emphasis Program learning outcomes:

Outcome 1: Students will practice and analyze democratic civic engagement.

Outcome 2: Students will demonstrate and evaluate relationships between local and national issues, movements, and ideas as they relate to local communities.

Outcome 3: Students will demonstrate a range of skills including: research, documentation, analysis, evaluation, communication, contextualization, teamwork, observation, and cultural competency by relating social science concepts and theories to issues of importance to local communities.

Outcome 4: Students will identify, develop, use, and assess tools and methods for community change and social justice.

COMMUNITY STUDIES EMPHASIS

12 units required:

Sociology 1B, Social Problems

Anthropology 3, Cultural Anthro

History 3, California History **OR** Mexican-American History

Psych/Poli Sci 27, Contemporary Leadership **OR** PS 6, Conflict Resolution

Choose any 9 units elective:

Communications 4, Intercultural Communication

Communications 10, Small Group Communication

Political Science 1

Psych/Poli Sci 27 Contemporary Leadership if not taken above

Political Science/Psych/Comm 6, Intro to Conflict Resolution if not taken above

Art 14, Beginning Mural Painting

Ecology 1, Conservation of Natural Resources

Geography 2, Cultural Geography

Geology 13, Environmental Geology

Health Education 2, Human Sexuality

History 2 US History Since 1876

History 3 (if not taken above), California History

History 5 and 6, US Womens History before and after 1900

History 10, African-American History

History 12, Mexican American History if not taken above

Sociology 3, Sociology of Minorities

Sociology 4, Sociology of Women and Men

21 units

Majors in Social Science with Emphasis on Global Studies gain durable tools to enrich and empower the global community by promoting social justice. By taking courses in anthropology, cultural geography, economics, history, political science, psychology, and sociology, students become competent to analyze, contextualize, and change global realities. In the process, students create linkages between local and national issues, movements, and ideas as they relate to the rest of the world, and prepare both for a variety of careers and for all-important responsibilities as global citizens.

Students completing this AA degree will be able to transfer to four-year colleges or enter professions in public service, policy, law, international relations, international business, politics, environmental policy, media, anthropology, history, economics, urban planning, political science, and more.

Global Studies Emphasis Program learning outcomes:

Outcome 1: Students will define and analyze global citizenship strategies in the context of globalization.

Outcome 2: Students will demonstrate and evaluate relationships between local and national issues, movements, and ideas as they relate to the global community.

Outcome 3: Students will demonstrate a range of skills including: research, documentation, analysis, evaluation, communication, contextualization, teamwork, observation, and cultural competency by relating social science concepts and theories to issues of global importance.

Outcome 4: Students will identify, develop, use, and assess methods and tools to bring about social justice

GLOBAL STUDIES EMPHASIS

Sociology 1A

Anthro 3 Cultural Anthropology OR Geography 2, Cultural Geography

History 4a OR 4b World History

Political Science 3 Intro to Comparative Politics OR Political Science 4 Intro to International Relations

Plus

5 units of a language other than English

17

Plus six units of Electives:

Anthro 1, Intro to Physical Anthropology

Anthro 3 Cultural Anthropology (if not taken above)

Anthro 5, Magic, Witchcraft and Religion

Art 10A, Cultural History of Ceramics

Art21/History 21, Ancient Americas: A History Through Art

Communications 4, Intercultural Communication

Ecology 1 Conservation of Natural Resources

Econ 1 or 2, Principles of Macro or Micro Economics

English 2B, Introduction to Multi-Cultural Literature;

Geography 2, Cultural Geography (if not taken above)

Geology 13, Environmental Geology

Philosophy 6, Religions of the World

Philosophy 7A or 7B, History of Philosophy;

Philosophy 15, Asian Philosophies

Poli Sci/Psych/Comm6, Introduction to Conflict Resolution

Psych 7, Cultural Context of Childhood

24 units

Catalog Description for Physical Science & Engineering

The A.S. Degree in Physical Science & Engineering has two options:

1. The Physical Science & Engineering option provides a broad background in the sciences. Students completing this degree will have learned to integrate math and science to solve problems, have proficiency in laboratory techniques and analysis of experimental data, and will have demonstrated an ability to communicate effectively using written, oral, electronic, and graphical means. This degree will prepare students interested in transferring to four-year colleges or universities to pursue degrees in any of the natural or physical sciences (astronomy, chemistry, geology or geophysics, general science, meteorology, oceanography, physics, etc). Students electing this major are encouraged to consult the catalogs of the four-year schools to which they plan to transfer early in their Gavilan course work as requirements for transfer vary by institution.

Please note that not all courses required for the degree are offered on a regular basis.

<Degree requirements remain unchanged.>

2. Engineers are responsible for designing and building everything that we use – airplanes, roads, machines, computers, buildings, artificial limbs. The Physical Science & Engineering: General Engineering option constitutes the lower-division core classes suggested by the Engineering Liaison Council (ELC), an organization composed of representatives from two- and four-year colleges and universities. Students completing this degree will have learned to identify various engineering problems and integrate math and science to solve them, have proficiency in the design, execution, analysis, and interpretation of experiments, demonstrate familiarity with the engineering design process, and will have demonstrated an ability to communicate effectively using written, oral, electronic, and graphical means. This degree will prepare students to transfer to four-year colleges or universities to pursue degrees in any of the engineering disciplines (aeronautical, chemical, civil, computer, electrical, industrial, materials, mechanical, etc.). Students electing this major are encouraged to consult the catalogs of the four-year schools to which they plan to transfer early in their Gavilan course work as requirements for transfer vary by institution.

Please note that not all courses required for the degree are offered on a regular basis.

<Degree requirements remain unchanged.>

Catalogue Description

Philosophy Department

The Philosophy Department of Gavilan College offers learners a unique opportunity to take a variety of courses from different philosophical perspectives, yet all rich in the voices of global cultures and religions. Philosophy concerns the investigation of the fundamental questions of the human experience, such as “Is knowledge possible?”, “Do we have free will”, “What is the meaning of life?” to “Is social justice possible?” In attempting to answer these questions, the discipline of Philosophy has provided the foundation of many other fields of inquiry, from psychology to sociology, law, and even business. At the core, Philosophy develops critical thinking skills, but in applying those skills, learners realize that philosophical inquiry has spanned the development of science, the birth of civilizations, religions, and ethical debates about when life begins and ends, principles of justice, environmental issues, animals rights, global warming, immigration, and even ideas about art, music, and the economy. Ultimately, Philosophy provides a learner pursuing any major an opportunity to enhance critical thinking skills while engaging in the analysis of arguments and theories about issues that has spanned the ages and still affect contemporary life.

All Philosophy class fulfills a GE Humanities credit. Philosophy 4 and Philosophy 2 fulfill GE Critical Thinking requirements.

Career opportunities for Philosophy Majors:

Learners who have taken Philosophy courses are good candidates for jobs requiring liberal arts education. Employers often look for people who can solve problems and can write and think critically— skills that philosophy enhances. Examples of careers include: communications, education, journalism, law, management and business, and politics.

Program Learning Outcomes: After completing Philosophy courses, a student will be able to:

- Analyze and critique an argument
- Effectively argue in support of an opinion
- Write an argumentative essay
- Define key terms of philosophical vocabulary relevant to the course
- Distinguish different areas of philosophy
- Understand some of the diverse assumptions and values that shape our values and attitudes

Catalog Description

GAVILAN COLLEGE PHYSICAL EDUCATION & ATHLETICS DEPARTMENT

The Physical Education department provides opportunities for students to participate in activity classes, pursue a professional career, transfer, and compete in intercollegiate athletics. A variety of activity courses are offered to meet the interest and needs of all students as they fulfill the general education requirements, physical education graduation requirements, or their desire to maintain lifetime fitness.

An Associate of Arts Degree with three options of study – Education, Sports Management, and Sports Medicine – is available. The AA degree can be obtained by completing a total of 60 units, including the 24-28 unit major general education requirements and electives. This program is also designed to allow students to transfer into baccalaureate programs in physical education or related areas.

Professional fields include teaching, coaching, athletic training, physical therapy, exercise physiology, motor learning, sports management, sports psychology, and personal fitness trainer. These careers would involve employment with educational institutions, commercial health clubs and other private and public fitness and sports centers, working in recreation departments, and working with sports teams.

Gavilan College offers a variety of intercollegiate sports for men and women. We compete in the Coast Conference which is a member of the California Community College Athletic Association. Students participate for a variety of reasons, including the desire to compete at the intercollegiate level and for the opportunity to earn an academic or athletic scholarship at the 4-year level.

Program Learning Outcomes: After completing the Physical Education major a student will be able to:

- List and describe 5 career options available in the field of physical education.
- Explain the importance of lifetime fitness in today's society.
- Discuss the concentration area (option) that is their major emphasis of study. This will include the history, role within the work setting, and skill demonstration where appropriate (athletic training and CPR).
- Select a sport and explain an appropriate tournament format or describe the basic skills required to participate in that sport.
- Apply selected motor development skills to the structures of the human body.

EDUCATION OPTION – AA Degree

The Education option is for those students wishing to pursue a degree in teaching and/or coaching. It provides a core set of courses designed to allow individuals to earn an AA Degree or enter a baccalaureate program leading to a teaching credential.

<i>Course #</i>	<i>Course Title</i>	<i>Unit Value</i>
<i>PE 2</i>	<i>Introduction to Physical Education</i>	<i>3</i>
<i>PE 3</i>	<i>Introduction to Athletic Training</i>	<i>4</i>
<i>PE 5</i>	<i>Individual and Dual Sports</i>	<i>3</i>
<i>AH 32</i>	<i>Basic Cardiac Live Support</i>	<i>1</i>
<i>BIO 15</i>	<i>Survey of Human Anatomy and Physiology</i>	<i>5</i>
<i>HE 1</i>	<i>Health Education</i>	<i>3</i>
	<i>Choose one (1) of the following:</i>	
<i>PE 1</i>	<i>Orientation for Student-Athlete Success</i>	<i>1</i>
<i>PE 6</i>	<i>Games and Rhythms for Children</i>	<i>3</i>
<i>PE7</i>	<i>Theory of Sports Management</i>	<i>3</i>
<i>PE 8</i>	<i>Psychology of Coaching</i>	<i>3</i>
<i>PE 9</i>	<i>Fundamentals of Soccer</i>	<i>2</i>
<i>PE 10</i>	<i>Fundamentals of Softball</i>	<i>2</i>
<i>PE 11</i>	<i>Fundamentals of Baseball</i>	<i>2</i>
<i>PE 12</i>	<i>Fundamentals of Football</i>	<i>2</i>
<i>PE 13</i>	<i>Fundamentals of Volleyball</i>	<i>2</i>
<i>PE 14</i>	<i>Fundamentals of Basketball</i>	<i>2</i>
	<i>Physical Education Activity Courses (A minimum of 6 units from at least 4 different activities. May include intercollegiate athletics)</i>	<i>6</i>
	<i>Total</i>	<i>26-28</i>
	<i>Plus completion of General Education requirements:</i>	<i>Units vary</i>
	<i>Total units Required for AA Degree:</i>	<i>Minimum of 60 UNITS</i>

SPORTS MANAGEMENT OPTION – AA Degree

The Sports Management option is intended for those students wishing to earn an Associates of Arts Degree and/or transfer to and complete their degree option at a four year university. Career opportunities include working with college sports teams, professional sports teams, corporate and individual health facilities, and in athletic administration.

<i>Course #</i>	<i>Course Title</i>	<i>Unit Value</i>
<i>PE 2</i>	<i>Introduction to Physical Education</i>	<i>3</i>
<i>PE 3</i>	<i>Introduction to Athletic Training</i>	<i>4</i>
<i>PE 5</i>	<i>Individual and Dual Sports</i>	<i>3</i>
<i>PE 7</i>	<i>Theory of Sports Management</i>	<i>3</i>
<i>AH 32</i>	<i>Basic Cardiac Live Support</i>	<i>1</i>
<i>HE 1</i>	<i>Health Education</i>	<i>3</i>

	Choose one (1) of the following:	
PE 1	Orientation for Student-Athlete Success	1
PE 6	Games and Rhythms for Children	3
PE 8	Psychology of Coaching	3
PE 9	Fundamentals of Soccer	2
PE 10	Fundamentals of Softball	2
PE 11	Fundamentals of Baseball	2
PE 12	Fundamentals of Football	2
PE 13	Fundamentals of Volleyball	2
PE 14	Fundamentals of Basketball	2
	Physical Education Activity Courses (A minimum of 6 units from at least 4 different activities. May include intercollegiate athletics)	6
	Total	24-26
	Plus completion of General Education requirements:	Units vary
	Total units Required for AA Degree:	Minimum of 60 UNITS

SPORTS MEDICINE OPTION – AA Degree

The Sports Medicine option is for students wishing to pursue a degree in athletic training, physical therapy, and personal trainer/fitness specialist. The courses are designed to allow individuals to earn an AA Degree or transfer to a four year university to earn a Bachelor's degree.

Course #	Course Title	Unit Value
PE 2	Introduction to Physical Education	3
PE 3	Introduction to Athletic Training	4
PE 5	Individual and Dual Sports	3
AH 32	Basic Cardiac Live Support	1
BIO 15	Survey of Human Anatomy and Physiology	5
HE 1	Health Education	3
	Choose one (1) of the following:	
PE 1	Orientation for Student-Athlete Success	1
PE 3A	Athletic Training Field Experience	2
PE 6	Games and Rhythms for Children	3
PE 7	Theory of Sports Management	3
PE 8	Psychology of Coaching	3
PE 9	Fundamentals of Soccer	2
PE 10	Fundamentals of Softball	2
PE 11	Fundamentals of Baseball	2
PE 12	Fundamentals of Football	2
PE 13	Fundamentals of Volleyball	2
PE 14	Fundamentals of Basketball	2
	Physical Education Activity Courses (A minimum of 6 units from at least 4 different activities. May include intercollegiate athletics)	6
	Total	26-28
	Plus completion of General Education requirements:	Units vary
	Total units Required for AA Degree:	Minimum of 60 UNITS

Fine Arts Catalog Description

The Fine Arts program educates students on artistic endeavors in art, theatre and music. Students will explore, critique and evaluate the arts across various contexts.

Fine Arts Degree Description

Provides the knowledge base and experiences for students interested in the study of art, theatre and music. Students completing this degree will be able to critically analyze and interpret various mediums of fine arts. Students will have the ability to recognize, value and nurture aesthetic forms of fine arts and build a foundation to foster further artistic thought and endeavors.

Esthetics-Science of Skin Care

Esthetician Certificate Requirements

Scientific Skin Care (8units)
Advanced Scientific Care (8 units)
Electives (6 units)

Gavilan College offers a comprehensive skin care program that will meet the State of California Department of Consumer Affairs, Board of Barbering and Cosmetology requirements for licensure. State Licensing requires 600 hours for the practice of Esthetics.

Two courses are offered to meet the requirements for Licensure: Scientific Skin Care and Advance Scientific Skin Care. The curriculum includes, but is not limited to, the study of skin its appendages, massage, masks and peels, use of skin care machines, product knowledge, light therapy, botanical and chemical therapy, sanitation, salon operation, and Cosmetology State Board regulations. Instruction also includes client services.

Scientific Skin Care and advanced Scientific Skin Care are offered in two consecutive semesters. An additional 6 units in Electives is required to receive a Certificate of Completion of Esthetics.

Program Learning Outcomes:

After completing the Certificate of Completion for Esthetics, students will:

- Be eligible to take the State Board of Barbering and cosmetology examination for competency in employment.
- Be able to practice client services through skin analysis, treatments and application of products.
- Esthetician has the opportunity to manage a Salon, become a Proprietor, or a sales consultant.

The credit ESL Program offers all levels of ESL courses ranging from basic to advanced in the areas of listening, speaking, grammar, reading, and composition. The program provides language skills for students with a variety of goals, from personal enrichment to academic preparation for students who want to pursue higher education in college instructional and/or vocational programs.

In learning the English language, students learn to communicate in areas important to their personal lives, interact with native English speakers, read and understand the main ideas of a text and the supporting details that illustrate them, understand the rules and use of different grammar structures, and write about a topic with support and clarity.

Students in the ESL Program come from a wide variety of educational, cultural, and native language backgrounds and contribute that richness to the study of English as a second language. Because of the multiple factors involved in language learning, progress in the learning of English varies from student to student. The program provides a sequence of courses that challenge students to review and expand skills previously learned in an atmosphere of intensity, professionalism, support, and respect. We take pride in our students and in our program.

	Morning ↓		Evening ↓	Summer ↓
Basic Level:	ESL 501 ESL 502 ESL 503	ESL 510A ESL 510B		ESL 581 ESL 582
Beginning Level:	ESL 521 L/S ESL 522 R/V ESL 523 G/W		ESL 527 ESL 528	ESL 585 ESL 585
Intermediate Level I:	ESL 531 L/S ESL 532 R/V ESL 533 G/W	ESL 546	ESL 537 ESL 538	
Intermediate Level II:	ESL 541 L/S ESL 542 R/V ESL 543 G/W		ESL 547 ESL 548	
Advanced Level I:	ESL 552 R/V ESL 553 W ESL 554 G			
Advanced Level II:	ESL 561 L/S ESL 562 R/V ESL 563 W ESL 564 G			

Digital Media Program Description (version 2/22/09, RAB)

(To be used with previous submitted PLO. SLO catalog edit.)

Digital Media is the use of computer technology in communication: to create, manipulate, and combine different media whether it be text (words, equations), graphics (photography, art and design images, charts and graphs, CAD drawings, animation), audio (spoken words, music, sound effects) and video (motion picture/film, animation, visual effects) sometimes with links (connections) that let the user navigate, interact, create, and communicate.

Gavilan College has developed this Digital Media program complete with *state of the art* technology and studio to provide students with the opportunity to acquire or enhance job skills in this contemporary art, satisfy major requirements for transferring to a college or university, or for personal enrichment in this exciting technology-based field that is changing our lives on a daily basis.

Gavilan's students studying Digital Media learn fundamental concepts and complex techniques applicable to digital media; related programs in multimedia, new media, digital film/video, digital art; and almost any other work situation in this technologically equipped world in which we live. A variety of degree and certificate options are provided so that one may pursue their desired specialty within this truly multidisciplinary area.

Digital Media Certificates and Associate of Arts Degree

A.A. Degree in Digital Media (60 units) and Certificate of Achievement (27 units) specialty options:

Interactive Media:

For job as a web designer, web architect, information designer, webmaster; CD-ROM, DVD, or video game designer/developer.

Digital Art/Imaging:

For job as a digital photographer, animator, or graphic designer/artist for computer games, motion graphics, Web, CD-ROM, DVD, and digital print.

Digital Audio/Video:

For job as a digital audio/video editor, web streaming media producer, podcast specialist, videographer, or sound designer for games, animation, or film/video.

Certificates of Proficiency (17 units):

Digital Imaging/Graphics Production Specialist:

For jobs preparing graphics, touching up photos, and working with other artwork for print, video, animation, or web use.

Web Page Production Specialist:

For jobs maintaining web sites or assisting web designer/developer.

Digital Print Production Specialist:

For Jobs working with graphic designers preparing content for and printing brochures, posters, catalogs, books, and other advertising material.

Digital Video Editor Specialist:

For jobs working as a video/film editor's assistant, sound mixer, or visual effects assistant.

COSMETOLOGY CATALOG DESCRIPTION

The Cosmetology Department offers a 1600 hour course of instruction to both men and women in all phases of cosmetology. It fulfills the requirements set forth by the State of California Department of Consumer Affairs, Board of Barbering and Cosmetology. The Western Association of Schools and colleges also accredits this program.

Gavilan College offers the required hours in a four module sequence of classes.

Students who have received the Cosmetology Certificate of completion may achieve an associate's degree by completing additional General Ed requirements.

Career Opportunities include:

- Cosmetologist
- Assistant stylist
- Manicurist
- Color specialist
- Estheticians
- Platform Artist
- Educators
- Salon owner/ Manager

Students completing the certificate of completion and AS degree will become eligible to become a Vocational Instructor by completing a supplemental Teacher Training Course.

See a cosmetology instructor or counselor for details.

Computer Graphics & Design

An AS Degree or Certificate of Completion in Computer Graphics & Design (CGD) provides technical skills and multidisciplinary knowledge required by diverse design careers. CGD graduates can describe ways projects presented within their electronic portfolio incorporate design principles, use appropriate materials, apply sustainable practices and integrate ergonomic features. CGD learning outcomes prepare graduates for proposing, manufacturing and marketing real and/or virtual products. Projects completed by CGD graduates' demonstrate competencies in creative problem solving, sketching, drafting, 3D graphics (including animating and rendering projects) — skills expected of entry level design technicians and/or engineering, architecture, environmental planning, animation, industrial, product and other design transfer students.

Computer Graphics & Design Certificate of Achievement

Students completing Core Computer Graphics & Design (CGD) courses present real and/or virtual products within electronic portfolios. CGD graduates' work samples reveal their ability to apply a creative problem solving process to propose, develop, refine and present products associated with their career goal. Freehand sketches combined with SolidWorks or other industry standard CAD drawings and models are used to design aesthetically pleasing functional objects, explain manufacturing processes and support marketing efforts. CGD graduates' work samples of realistic rendered 3D models of innovative products help make them competitive when transferring to design schools and seeking entry level positions.

Advanced Technical Computer Graphics Option

In addition to competencies exhibited by Computer Graphics & Design graduates, those earning a Certificate in Advanced Technical Computer Graphics Option are adept at using multiple programs (such as those from Adobe's Creative Suite) along with other computer graphic software programs to create and present electronic portfolios showcasing their skill at creating aesthetically pleasing realistic animated presentations of real and/or virtual products.

Communication Studies

DEGREE

A.A. – Communication Studies

CERTIFICATE(S)

Certificate of Achievement in Communication Studies

Certificate of Achievement in Interpersonal Communication

Program Description

Communication is a vital part of today's world, whether a skill used professionally, socially or in your personal life. We welcome you to explore one of the many areas of Communication Studies by taking a class at Gavilan College.

The Communication Studies Faculty at Gavilan is dedicated to providing students with the knowledge and skill about human communication that can be applied to various contexts in your life. Whether it be improving on your public speaking skills, working with a culturally diverse group at work or developing skills to better communicate your wants and needs to family and friends, our curriculum is academically structured to meet your needs based on the specific course that you choose.

Communication scholars and students work in a variety of fields, among them journalism, law, education, film and television, non-profit organizations, marketing, theater, business, and public relations. Effective communication skills are essential for any career and you will learn how to develop your own communication skill set by taking coursework at Gavilan.

Gavilan offers an A.A. Degree in Communication Studies, a Certificate of Achievement in Communication Studies, and a Certificate of Achievement in Interpersonal Communication.

A.A. Degree

Specifics:

Double Counting: A minimum of 21 major course units will be required for the associate degree. Should a student's particular major require 21 + units, he/she may use (double count) any courses, if applicable, over the 21 unit minimum, to satisfy general education requirements. Four-year colleges may differ in their major preparation requirements for transfer. Consultation with a counselor regarding transfer requirements is recommended.

Core: 15 Units

CMUN 1A Introduction to Public Speaking (3 units)

CMUN 4: Intercultural Communication (3 units)

CUMN 8: Interpersonal Communication (3 units)

CMUN 10: Small Group Communication (3 units)
PSYC 1 A: Introduction to Psychology (3 units)

Electives: 6 units

Choose **ONE** from the following:

CMUN 5: Fundamentals of Communication (3 units)
CMUN 11: Business Communication (3 units)
JOUR 10: Mass Media and Society (3 units)
PSYC 27: Contemporary Leadership (3 units)
PHIL 4: Critical Thinking and Writing (3 units)

Choose **ONE** from the following:

CMUN 6: Introduction to Conflict Resolution (3 units)
ANTH 3: Introduction to Cultural Anthropology (3 units)
SOC 1A: Introduction to Sociology (3 units)
SOC 21: Marriage and the Family (3 units)
SOC 4: Sociology of Women and Men (3 units)
Total Units for Major: 21 UNITS

Plus completion of general education requirementsunits vary

Total Units Required for A.A.: minimum of 60 UNITS

General Education Requirements: A student may complete the Gavilan College AA/AS general education, the CSU-GE Breadth, or the IGETC pattern.

Certificate of Achievement in Communication Studies: 12 units

Choose **4 classes (12 units)** from the following:

CMUN 1A: Introduction to Public Speaking
CMUN 2: Oral Reading
CMUN 4: Intercultural Communication
CMUN 5: Fundamentals of Communication
CMUN 8: Interpersonal Communication
CMUN 10: Small Group Communication
CMUN 11: Business Communication
CMUN 129: Presentation Graphics – MS PowerPoint

Certificate of Achievement in Interpersonal Communication: 18 units

Choose **6 classes (18 units)** from the following:

CMUN 8: Interpersonal Communication
CMUN 5: Fundamentals of Communication
CMUN 6: Conflict Resolution
CMUN 11: Business Communication
SOC 1A: Introduction to Sociology

PSYC 1A: Introduction to Psychology
PYSC/POLS 27: Contemporary Leadership

Communication Studies Program Learning Outcomes

After completing an A.A. and/or Certificate(s) of Achievement, a student will be able to:

- Apply theory and research findings in communication studies to their professional and personal relationships.
- Engage in professional public discourse with application of research, organization, reasoning and oral presentation.
- This A.A. and/or certificate(s) will inform future employers, college admission offices and professional institutions that you have received specialized training in communication skills.

PLOs for Communication Studies Cert. of Proficiency – from 2/20/08 Form F

Program Learning Outcomes: After completing this degree/certificate the student will be able to:

- | |
|---|
| <ul style="list-style-type: none">• Students will practice and analyze democratic civic engagement.• |
| <ul style="list-style-type: none">• Students will demonstrate and evaluate relationships between local and national issues, movements, and ideas as they relate to local communities.• |
| <ul style="list-style-type: none">• Students will demonstrate a range of skills including: research, documentation, analysis, evaluation, communication, contextualization, teamwork, observation, and cultural competency by relating social science concepts and theories to issues of importance to local communities.• |
| <ul style="list-style-type: none">• Students will identify, develop, use, and assess tools and methods for community change and social justice. |

Tech Desktop Option

Computer Graphics & Design Certificate of Achievement

Students completing Core Computer Graphics & Design (CGD) courses present real and/or virtual products within electronic portfolios. CGD graduates' work samples reveal their ability to apply a creative problem solving process to propose, develop, refine and present products associated with their career goal. Freehand sketches combined with SolidWorks or other industry standard CAD drawings and models are used to design aesthetically pleasing functional objects, explain manufacturing processes and support marketing efforts. CGD graduates' work samples of realistic rendered 3D models of innovative products help make them competitive when transferring to design schools and seeking entry level positions.

Student Learning Outcomes for Computer Graphics & Design

CGD Student Learning Outcomes	CGD 2	CGD 4	CGD 6	CGD 8	CGD 9	CGD 30	CGD 110	CGD 160
Plan CGD Career	Introduce	Develop	Develop	Master	Review	Reinforce		Review
Design Problem Solving	Introduce	Develop	Develop	Practice	Master	Practice	Reinforce	Review
Design & Color	Prepare	Introduce	Develop	Practice	Practice	Reinforce	Reinforce	Master
Typography	Introduce	Develop	Develop	Develop	Review	Reinforce	Reinforce	Master
3D Modeling	Introduce	Develop	Develop	Develop	Master		Practice	
Human Factors/Ergonomics	Prepare	Introduce	Develop	Master	Review	Practice		
Materials	Prepare	Reinforce	Develop	Introduce	Master	Reinforce	Reinforce	
Professional Portfolio	Prepare	Introduce	Develop	Master	Review	Reinforce	Reinforce	Master

Levels of Expertise

Prepare: Students gain awareness of basic concepts to support success when topic is introduced
Introduce: Students demonstrate ability to communicate knowledge of essential terminology and basic concepts in projects.
Develop: Students increase competency skills and knowledge by applying skills in progressively complex projects and assignments.
Practice: Students apply intermediate level or higher skills and knowledge in projects and assignments.
Reinforce: Students use associated skills, theories and knowledge to solve problems but do not necessarily demonstrate mastery
Master: Students projects exhibit proficiency of SLO and they are able to propose and evaluate pros and cons of alternative designs
Review: Students consistently integrate mastery levels skills and knowledge in design projects

Extended Descriptions of SLOs

Plan CGD Career: Develop and communicate research-based plan to make and act upon informed decisions related to CGD career.
Design Problem Solving: Use of a systematic creative problems solving process to generate, propose, develop, test and refine student designs
Design & Color: Apply design and color theories, principles and concepts throughout design process from conceptual sketches to final presentations
Typography: Integrate typographical theories and principles to support communication in design presentations
3D Modeling: Create technical 3D graphics using parametric CAD software to propose, develop, engineer, manufacture, and market products.
Human Factors/Ergonomics: Ability to design and develop real and virtual products that serve social needs in a user-friendly manner.
Materials: Expertise in selecting materials for designed products in and environmentally sound, cost effective and functional manner.
Professional Portfolio: Integrate typography, design and color theory to effectively present work samples in a digital portfolio customized for target audience.

CARPENTRY APPRENTICESHIP PROGRAM

Catalog Description:

The Carpenter Apprenticeship program is a 4 year course of study preparing students for courses in specialty crafts such as carpenters, millwrights, pile drivers, hard wood floor layers, acoustical installers, scaffold erectors, insulators and shinglers. Students will acquire journey level skills including those skills necessary to build all concrete infrastructures that comprise the California transportation system.

Gavilan College, in cooperation with the Carpenters Training Committee for Northern California, conducts a Carpenter Apprenticeship program which can lead to a Certificate of Achievement and/or Associates of Arts degree. An Apprenticeship program is a formal system of occupational training from two to five years that combines paid employment, on-the-job training and job related college level instruction in order to develop highly skilled workers.

This Apprenticeship program is a cooperative effort between the Joint Apprenticeship Training Committee (JATC) and the college. The JATC is composed of representatives from both labor and management from each apprenticeship area and their purpose is to oversee apprenticeship training. The Gavilan College apprenticeship program is approved by the Division of Apprenticeship Standards of the California Department of Industrial Relations.

Enrollment in an apprenticeship course is limited to registered apprentices, however anyone meeting the apprenticeship requirements can apply for acceptance (Carp 200 is open to everyone meeting eligibility requirements). Information on admission to apprenticeship programs can be obtained from the local JATC.

The Carpenter Apprenticeship program concentrates on training apprentices to the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial construction processes, building codes, estimation and various carpentry topics.

Program Learning Outcomes: *Upon completion of the Carpenter's apprenticeship certificate students will have:*

- Acquired journey level skills including those skills necessary to build all concrete infrastructures that comprise the California transportation system

Program Requirements

Requirements Degree or Certificate	38.75 units
CARP 201	Worker Safety and Tool Skills.....1.5
CARP 202	The Apprenticeship Carpenter and the Trade..... 2.0
CARP 203	Construction Math and Intro to Working Drawings.....2.0
CARP 204	Foundations and Floors..... 1.0
CARP 205	Residential Blueprint Reading.....2.5
CARP 206	Structural Framing.....1.0
CARP 207	Form Detailing, Construction, and Erection..... 1.0
CARP 208	Exterior Finish 1.0
CARP 209	Blueprint Reading – Commercial and Industrial.....2.0
CARP 210	Structural Concrete – Bridge Building..... 1.0
CARP 211	Interior Finish.....1.0
CARP 212	Level and Layout Instruments..... 1.75
CARP 213	Engineered Structural Systems.....1.0
CARP 214	Interior Systems..... 1.0
CARP 215	Stair Building.....1.0
CARP 216	Roof Framing.....1.0
CARP 217	Introduction of Welding and Cutting.....1.0
And a minimum of 16 units from the following..... 16	
CARP 298	Work Experience in Carpenter Apprenticeship (1-4)

Associates Degree Requirements: The Carpenter Apprenticeship Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60 – unit total. See Gavilan College graduation requirements.

Biology Program Description

The Biological Sciences Department of Gavilan Community College provides a quality education that emphasizes critical thinking skills for all students (Majors and Non-majors). Our primary goals are to prepare students to transfer to a 4-year college, enter programs that require our courses as prerequisites, and prepare students for possible employment upon completing certificate and/or graduation of AS degree. It is also our intent to encourage our students to gain practical experience in biological science by working with our faculty and local industry.

Program Learning outcomes: After completing the Biological Science major a student will be able to:

- Use raw experimental data to conduct statistical analysis, and present conclusions in a graphical and narrative form.
- Find, select and evaluate various types of scientific information including primary research articles, mass media sources and world-wide web information.
- Effectively communicate scientific concepts in both written and oral formats.
- Identify the evolutionary processes that lead to adaptation and biological diversity.
- Describe the relationship between life forms and their environment and ecosystems.
- Explain the basic structures and fundamental processes of life at molecular, cellular and organismal levels.
- Demonstrate the correct operating procedures in the use of common lab equipment such as compound microscopes, spectrophotometer, pH meter, electrophoresis gel apparatus, micropipetters, and centrifuges.

Program Options

A.S. Degree in Biology
A.S. Degree in Health Science
Biotechnology Certificate of Achievement

A.S. Degree in Biology

Major Requirements:

BIO 1	General Biology	4 units
BIO 4	General Zoology	4 units

BIO 5	General Botany	4 units
PHYS 2A/B	General Physics	4/4 units
<u>CHEM 1A/B</u>	<u>General Chemistry</u>	<u>5/5 units</u>
Core Units for Major:		30 UNITS

Plus completion of general education requirements units vary
 Total Units Required for A.S. : minimum of 60 UNITS

Recommended Electives:

MATH 1A/B, ECOL 1, BIO 8, 9, 15, (only if taken before BIO 7 and BIO 9)

Can we change to include 21, 13?

A.S. Degree in Health Science

Major Requirements:

AH 3 The Person in the Life Cycle	3 units
AH 11 Nutrition	3 units

Choose one of the following:

CHEM 1A or 1B General Chemistry (5 units)	
CHEM 30A Elementary Chemistry (4 units)	
CHEM 30B Elementary Organic and Biochemistry (4 units)	
BIO 1 General Biology (4 units)	
BIO 10 Principles of Biology (4 units)	
BIO 15 Survey Human Anatomy & Physiology (5 units)	4-5 units

Choose two of the following:

BIO 7 Human Anatomy (4 units)	
BIO 8 General Microbiology (5 units)	
<u>BIO 9 Human Physiology (5 units)</u>	<u>9-10 units</u>
Total Units for Major:	19-21 UNITS

Plus completion of general education requirements units vary
 Total Units Required for A.S. : minimum of 60 UNITS

Recommended Electives:

AH 11; MATH 233 or higher; ECOL 1; PSYC 1A

This degree is intended for students who plan to pursue a more advanced degree or certificate in a health career.

Career Options

pre-professional in X-ray technology

dental hygiene
physician's assistant
other related health careers

Certificated of Achievement

This certificated program allows students to achieve job-market proficiencies in Biotechnology. Provides opportunity to learn lab etiquette,

Catalog Description of the program:

This certificate program allows students to achieve job-market proficiencies in Biotechnology. Provides opportunity to learn basic laboratory procedures, how to record data, perform basic calculations and write laboratory reports. Students also learn about careers and ethical issues in biotechnology.

Biotechnology

Certificate of Achievement

BIOT 103 Biotechnology Lab Skills and Instrumentation	4 units
BIOT 104 Seminar in Biotechnology	1 unit
BIO 10 Principles of Biology	4 units
CHEM 30A Elementary Chemistry	4 units
<u>CHEM 30B Elementary Organic and Biochemistry</u>	<u>4 units</u>
Total Units for Certificate of Achievement:	17 UNITS

Career Options

Careers for those with a biotechnology certificate would be animal care technician, assay analyst, laboratory assistant or technician, Manufacturing technician, QA/QC technician. In addition to the biotechnology industry, jobs for technicians may be found in environmental testing labs, forensic labs, hospitals, plant pathology labs, research labs and wineries.