SOUTHWESTERN COLLEGE

The following information was omitted or changed during the Catalog 2019-2020 year. Please attach this addendum to your current catalog.

UC TRANSFERABILITY

UC Transferability Courses (Effective 2019-2020)

Course	Status
ART 192	Approved
BIOL 215	Approved
CAD 273	Approved
CAD 274	Approved
CIS 165	Approved
DANC 202	Approved
ES/A 128	Approved
ES/A 213	Approved
ES/S 106	Approved
FTMA 113	Approved
FTMA 120	Approved
FTMA 125	Approved
SWHS 110	Approved
TA 141	Approved
TA 142	Approved
TA 143	Approved
TA 144	Approved

C-ID APPROVAL LIST

Course	Status
HLTH 204	NUTR 110
MATH 57 + 115	MATH 110
MUS 101	MUS 120
MUS 102	MUS 130
MUS 105	MUS 100
MUS 110	MUS 150
MUS 111	MUS 125
MUS 115	MUS 155
MUS 124A	MUS 185
MUS 124B	MUS 185
MUS 124C	MUS 185
MUS 124D	MUS 185
MUS 132A	MUS 170
MUS 132B	MUS 171
MUS 132C	MUS 172
MUS 170	MUS 185
MUS 171	MUS 185
MUS 172	MUS 185
MUS 173	MUS 185
MUS 185	MUS 180
MUS 186	MUS 180
MUS 187	MUS 180
MUS 188	MUS 180

NEW PROGRAMS

FILM, TELEVISION, AND MEDIA ARTS ASSOCIATE IN SCIENCE

ASSOCIATE IN SCIENCE
CAREER\TECHNICAL (MAJOR CODE: 02533)

Film, Television and Media Arts is the study of film, television, video, and new media technology. It combines elements of the visual and performing arts with writing, speech, computer science, theory, history, technology, criticism, literature, law, psychology, sociology, and management in the production of visual and aural communications. FTMA explores the broadening implications of producing media for new wider Internet and evolving distribution opportunities.

REQUIRED CORE:

FTMA 100	Editing I	3
FTMA 101	Fundamentals in Camera, Lighting, and Sound	3
FTMA 102	Introduction to Motion Picture Production	3
FTMA 103	Introduction to Television Studio Production	3
FTMA 105	Introduction to Writing for Television, Motion Picture, and Media	3
FTMA 160	Cinema as a Form of Expression and Communication	3
FTMA 162	Culture and the Media	3
FTMA 290	Professional Media Work Experience I	2-4
Complete one of the below Options:		7-11
	Total:	30-36

OPTION 1: FILM TELEVISION PRODUCTION

FTMA 112	Motion Picture Production I	3
FTMA 124	Documentary Motion Picture Production I	3
FTMA 127	Directing for Motion Picture Production	3
or		
FTMA 131	Cinematography I	3

OPTION 2: POST-PRODUCTION

FTMA 111	Recording Techniques	3
FTMA 112	Motion Picture Production I	3
FTMA 120	Video Post-Production, Graphics, and Special Effects	3

OPTION 3: SCREENWRITING

FTMA 112	Motion Picture Production I	3
FTMA 115	Scriptwriting for the Stage and Film	3
FTMA 124	Documentary Motion Picture Production I	3
or		
Select one course from the below list of Recommended Electives:		2 – 4

OPTION 4: MULTI-CAMERA LIVE PRODUCTION

FTMA 113	Television Studio Production	3

Select two courses from the below list of Recommended Electives: 4-8

RECOMMENDED ELECTIVES:

FTMA 113	Television Studio Production	3
FTMA 116	Acting for the Camera I	3
FTMA 124	Documentary Motion Picture Production I	3
FTMA 127	Directing for Motion Picture Production	3
FTMA 131	Cinematography I	3
FTMA 140	Technical Design and Production	3
FTMA 161	History of Film as Art	3
FTMA 291	Professional Media Work Experience II	2-4
FTMA 292	Professional Media Work Experience III	2-4
FTMA 293	Professional Media Work Experience IV	2-4

To earn an associate degree, additional General Education and Graduation Requirements must be completed.

FILM, TELEVISION, AND MEDIA ARTS PRODUCTION SPECIALIST-ADVANCED CERTIFICATE OF ACHIEVEMENT

**CERTIFICATE OF ACHIEVEMENT
CAREER\TECHNICAL (MAJOR CODE: 02534)**

The Film, Television and Media Arts program prepares students for employment in the professional film, television, broadcast, and media industries as well as the independent film and media production industry.

REQUIRED CORE:

FTMA 100	Editing I	3
FTMA 101	Fundamentals in Camera, Lighting, and Sound	3
FTMA 102	Introduction to Motion Picture Production	3
FTMA 103	Introduction to Television Studio Production	3
FTMA 105	Introduction to Writing for Television, Motion Picture, and Media	3
FTMA 160	Cinema as a Form of Expression and Communication	3
FTMA 162	Culture and the Media	3
FTMA 290	Professional Media Work Experience I	2 - 4
	Total:	23-25

YOGA TEACHER TRAINING – 200 HOUR CERTIFICATE OF ACHIEVEMENT

**CERTIFICATE OF ACHIEVEMENT
CAREER\TECHNICAL (MAJOR CODE: 01363)**

Yoga teachers design and instruct yoga classes for participants of various ability levels. They ensure through diligent planning, intelligent sequencing, and the inclusion of appropriate progressions of poses that each class experience is safe, effective and enjoyable for all participants. This program fulfills the requirement for the 200-hour registered yoga teacher (RYT) credential with Yoga Alliance and covers a wide range of topics from the history and philosophy of yoga, to basic alignment principles and teaching methodologies.

REQUIRED COURSES:

ES/T 210	Yoga Teacher Training Essentials	3
ES/T 211	Yoga Teacher Training Progressive Methodologies	3
ES/T 212	Yoga Teaching Practicum	1
ES/A 264	Beginning Yoga	1
or		
ES/A 265	Intermediate Yoga	1
or		
ES/A 266	Advanced Yoga	1
	Total:	8

ELECTRICIAN TRAINEE CERTIFICATE OF COMPLETION NONCREDIT

**CERTIFICATE OF COMPLETION
CAREER\TECHNICAL (MAJOR CODE: NC001)**

The Electrician Trainee Program reflects a collaboration between Southwestern College and the International Brotherhood of Electrical Workers (IBEW) to assure quality training to individuals interested in pursuing careers in the electrical industry. The 750-hour noncredit program includes all the requirements a student will need to enter a fast-tracked apprenticeship program.

NC 301	Electrician Trainee: Introduction to the Electrical Trade, Industry and Construction Safety I	0
NC 302	Electrician Trainee: Introduction to the Electrical Trade, Industry and Construction Safety II	0
NC 303	Electrician Trainee: Advanced DC Circuit Concepts; Introduction to 3Ø Circuits and National Electric Code Application	0
NC 304	Electrician Trainee: AC Circuit Concepts, Applied Electronics, and National Electric Code Application	0
NC 305	Electrician Trainee: Digital Logic Circuits, Conductor Characteristics and Application, and National Electric Code	0
NC 306	Electrician Trainee: Overcurrent Protection, Lighting Systems, Basic Blueprints and Specifications, and National Electric Code	0
NC 307	Electrician Trainee: Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and the National Electric Code	0
NC 308	Electrician Trainee: Motor Control Principles, Generators and Power Supplies, and National Electric Code	0
NC 309	Electrician Trainee: Transformer Theory, Leadership, Management and Test Equipment	0
NC 310	Electrician Trainee: Specialty Systems	0
	Total Hours:	0

PROGRAM MODIFICATIONS

SURGICAL TECHNOLOGY ASSOCIATE IN SCIENCE

PREREQUISITES:

BIOL 190	Human Anatomy and Physiology	4
or		
BIOL 260	Human Anatomy	4
and		
MEDOP 230	Medical Terminology	3

Acceptance into the Surgical Technology program

FIRST SEMESTER:

ST 110	Introduction to Surgical Technology	8
ST 120	Surgical Laboratory	4

SECOND SEMESTER:

ST 130	Advanced Operating Room Techniques	4
ST 140	Practicum: Major Surgical Specialties	8
ST 150	Current Concepts in Surgical Technology	1

SUMMER SESSION:

ST 160	Practicum: Subspecialties	6
	Total units: 35-38 ~~39~~	

The following courses must be taken as part of the General Education Requirement for surgical technology:

BIOL 265	General Microbiology	4
COMM 174	Interpersonal Communication	3
PSYC 101	General Psychology	3

PARALEGAL STUDIES
ASSOCIATE IN SCIENCE

Prepares students for a career as a paralegal or other law-related career with a multicultural international perspective. Trains students with a combination of legal theory, principles, procedures, and practical applications, including a hands-on paralegal internship. Emphasizes research, litigation, trial preparation skills, including familiarity with court documents, interviewing clients, drafting legal documents, and experience with legal software.

REQUIRED COURSES:

LEGL 255	Introduction to Law and Legal Terminology	3
LEGL 258	Legal Communications	3
LEGL 259	Legal Ethics and Professional Responsibility	1
LEGL 260	Legal Research	3
LEGL 261	Civil Litigation I	3
LEGL 268	Computer Assisted Legal Research (CALR)	2
LEGL 270	Computer Skills for Legal Professionals	2.5
LEGL 290	Legal Cooperative Work Experience I	1 - 3
or		
LEGL 291	Legal Cooperative Work Experience II	1 - 3
or		
LEGL 292	Legal Cooperative Work Experience III	1 - 3
or		
LEGL 293	Legal Cooperative Work Experience IV	~~2~~ 1 - 3

Select 11 units from the following courses:

LEGL 225	Law Office Management	3
LEGL 256	International Law for Business	3
LEGL 262	Immigration Law and Procedure	3

LEGL 263	Family Law	3
LEGL 264	Wills, Trusts, and Estates	3
LEGL 266	Mediation, Negotiation, and Conflict Management	2
LEGL 267	Interviewing and Investigation for Paralegals	2
LEGL 269	Civil Litigation Procedures	3
LEGL 271	Introduction to Intellectual Property	2
LEGL 272	Business Organizations	2

Select 3 units from the following courses:

AJ 151	Concepts of Criminal Law	3
AJ 156	Legal Aspects of Evidence	3
AJ 181	Juvenile Law and Procedures	3
BUS 140	Business Law/The Legal Environment of Business	3
RE 106	Legal Aspects of Real Estate	3
	Total units: ~~33.5~~ 32.5-34.5	

BUSINESS MANAGEMENT
ASSOCIATE IN SCIENCE

Designed to provide students with key concepts for careers in business management, including the areas of administration, management, marketing, finance, entrepreneurship, supervision, banking, small business, merchandising, international trade, accounting, ebusiness and information systems. Explores the theories, history, principles, skills, practices, laws, ethics, and technologies governing the increasingly global business environment.

REQUIRED CORE:

ACCT 7	Basic Business Bookkeeping	3
or		
ACCT 8	Payroll	4
or		
ACCT 12	Computerized Accounting	3
or		
ACCT 101	Principles of Accounting I	4
or		
CIS 122B	Spreadsheet: Software	1
BUS 140	Business Law/The Legal Environment of Business	3
BUS 211	Communication in Business and Industry	3
or		
BUS 212	Business Communication	3
BUS 290	Work Experience in Business I	2 - 4
Plus completion of ONE of the following Certificates of Achievement:		16 - 19
	Total units: ~~28.00-34.00~~ 25.00-33.00	

Plus completion of ONE of the following Certificate of Achievement:

Marketing (Major Code: B2113)
E-Business (Major Code: B2457)
Business Management (Major Code: B1153)
Financial and Investment Services Specialty (Major Code: B2027)
Entrepreneurship and Small Business (Major Code: A1155)

SUSTAINABLE ENERGY STUDIES
ASSOCIATE IN SCIENCE

ASSOCIATE IN SCIENCE
CAREER\TECHNICAL (MAJOR CODE: 02472)

Introduces the student to the study of the growth of the human population and its effects on energy and climate demands with an emphasis on landscaping and the built environment. Studies the relationship between human biology and the environment as applied to building design. Emphasizes sustainable building design, passive energy strategies, and the application of appropriate heating, cooling, and ventilation systems. A hands-on study of energy auditing methods of existing homes as they are now constructed, analysis of residential design and strategies for energy efficiency. Prepares the student to take the California Home Energy Rater System (H.E.R.S.) level 1 certification exam.

CORE COURSES:

SES 101	Introduction to Sustainable Energy Studies	3
or		
LNT 101	Introduction to Sustainable Energy Studies	3
SES 105	California Green Code and Sustainable Technologies	3
or		
CI 105	California Green Code and Sustainable Technologies	3
SES 110	Introduction to Building Science	4
SES 120	The Energy Efficient Building	3
SES 201	Beginning Building Information Modeling	3
or		
ARCH 201	Beginning Building Information Modeling	3
SES 205	Building Energy Analysis Using BIM	3

Total units: 19

SUSTAINABLE LANDSCAPE PRACTICES
CERTIFICATE OF ACHIEVEMENT

CERTIFICATE OF ACHIEVEMENT
CAREER\TECHNICAL (MAJOR CODE: 02613)

Trains students to become proficient in the many skills needed to evaluate residential and urban landscapes for sustainable practices in design, installation, and maintenance. Careers related to this certificate program include Sustainable Landscape Manager, Landscape Irrigation Auditor, and Sustainable Landscape Designer.

LNT 94	Sprinkler System Installation, Maintenance, and Repair	3
LNT 100	Plant and Horticultural Science	4
LNT 101	Introduction to Sustainable Energy Studies	3
LNT 105	Plant Identification - Trees	3
LNT 109	Plant Identification - Shrubs	3
LNT 119	Plant Identification: Xeriphytic Plants	3
LNT 120	Landscape Design I	4
LNT 128	Sprinkler Design	3
LNT 129	Sustainable Landscape/Water Auditor	3
LNT 134	Soils	3
LNT 136	Plant Pest and Disease Control	3

Total units: 35

LOGISTICS AND TRANSPORTATION
ASSOCIATE IN ARTS

ASSOCIATE IN ARTS
TRANSFER PREPARATION (MAJOR CODE: 01142)

Prepares students for management study in industries affected by, but not limited to, cross-border and international trade. Students will acquire skills that can be applied on an international level, including supply chain management, goods transportation, planning operations, inventory and warehousing.

ACCT 101	Principles of Accounting I	4
ACCT 102	Principles of Accounting II---Managerial	4
BUS 140	Business Law/The Legal Environment of Business	3
CIS 101	Introduction to Business Information Systems	4
ECON 101	Principles of Economics I	3
ECON 102	Principles of Economics II	3
MATH 119	Elementary Statistics	4
MATH 120	Calculus for Business Analysis	4

Total units: 29

INTERNATIONAL LOGISTICS AND
TRANSPORTATION
ASSOCIATE IN ARTS

ASSOCIATE IN ARTS
TRANSFER PREPARATION * (MAJOR CODE: 01710)

Prepares students for transfer to a four-year college or university to continue studies in logistics, supply chain management, or related fields. Introduces students to the field so that they can gain an understanding of the various areas related to the field, including logistics, transportation, export/import trade, planning operations, management, legal issues, inventory and warehousing.

ACCT 101	Principles of Accounting I	4
ACCT 102	Principles of Accounting II---Managerial	4
BUS 126	Introduction to Business Logistics Management	3
BUS 140	Business Law/The Legal Environment of Business	3
BUS 173	Transportation Management	3
BUS 212	Business Communication	3
CIS 101	Introduction to Computers and Information Processing	4
ECON 101	Principles of Economics I	3
ECON 102	Principles of Economics II	3
MATH 119	Elementary Statistics	4
PSYC 101	General Psychology	3
or		
SOC 101	Introduction to Sociology	3

Total units: 37

COMMUNITY, ECONOMICS AND URBAN DEVELOPMENT
ASSOCIATE IN ARTS

ASSOCIATE IN ARTS
TRANSFER PREPARATION * (MAJOR CODE: 01980)

Provides students with foundational skills in business administration required in the field of community, economic, and urban development. Gives an overview of the specialty areas involved in this dynamic field, including real estate, economics, architecture, community planning and re-development, transportation, and law.

ACCT 101	Principles of Accounting I	4
ACCT 102	Principles of Accounting II---Managerial	4
BUS 100	Introduction to Community, Economic, and Urban Planning	3
BUS 140	Business Law/The Legal Environment of Business	3
CIS 101	Introduction to Computers and Information Processing	4
ECON101	Principles of Economics I	3
ECON102	Principles of Economics II	3
LDR 154	Community and Collaborative Leadership	3
MATH 119	Elementary Statistics	4
MATH 120	Calculus for Business Analysis	4
	Total units:	35

CIS: COMPUTER PROGRAMMING WITH AN EMPHASIS ON APPLICATIONS--- ADVANCED
CERTIFICATE OF ACHIEVEMENT

CERTIFICATE OF ACHIEVEMENT
CAREER\TECHNICAL (MAJOR CODE: 02275)

Provides training in the theory and practice of computer programming emphasizing business and computer applications. Prepares students for employment as beginning- to intermediate-level programmers and provides a foundation for students who wish to transfer to a four-year university to study for a career in informational technology (IT).

REQUIRED CORE:

BUS 210 or	Business English	3
BUS 211 or	Communication in Business and Industry	3
BUS 212	Business Communication	3
CIS 101	Introduction to Business Information Systems	4
CIS 106	Programming Logic and Design	3
CIS 115	Introduction to Programming Using C++	4
CIS 130	Microcomputer Disk Operating System	1
CIS 146	Introduction to Structured Query Language (SQL)	2
CIS 167	Quality Assurance and Software Testing	3
CIS 226	Operating Systems and Command Languages	3
CIS 290-291	Work Experience CIS Applications I-II	2 – 4
CIS 239	Project Management	3

Select one of the following groups (8-10 units):
Group A-Open Source

CIS 108	PHP (Personal Home Page) and MySQL	6
CIS 153	Programming Internet Visual/Mobile Applications Using Java	4

Group B- Microsoft

CIS 117	Windows Programming Using Visual BASIC	4
CIS 139	Windowing Environment	1
CIS 166	C# Programming	3
	Total units: 36.00 - 40.00	

NEW COURSES

ES/A 200
Cardio Kickboxing I
1 UNIT

Laboratory: 3
Offered: Fall, Spring

Course Description:
Combines fundamentals of kickboxing, boxing, and Muay Thai. Includes solo training, partner training, mitt training, and sparring at an introductory level. Emphasizes introductory-level kickboxing safety skills, kick/strike combinations, and self-defense. Provides training to improve flexibility, conditioning, balance, cardiovascular endurance, and aerobic capacity. (Formerly ES/A 295B) [D; CSU]

NC 301
Electrician Trainee: Introduction to the Electrical Trade, Industry and Construction Safety I
0 UNITS

Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Explores and identifies safety issues surrounding construction jobsites, installation of electrical systems, and job-site hazards. Identifies safe work practices and personal protective equipment. Meets the requirements of a certified electrical trainee program. Reviews basic math operations. Provides an OSHA 10 General Industry Safety Order certification upon successful course completion.

NC 302
Electrician Trainee: Introduction to the Electrical Trade, Industry and Construction Safety II
0 UNITS

Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Provides an introduction to algebraic and trigonometric concepts and application of their principles to solve basic electrical equations and layout conduit bends. Trains students how to apply basic electrical theory to predict circuit behavior. Introduces students to the National Electric Code.

NC 303
Electrician Trainee: Advanced DC Circuit Concepts; Introduction to 3Ø Circuits and National Electric Code Application
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Provides students with an introduction the study of circuit analysis techniques including series, parallel and combination DC circuits, and elementary 3Ø. Presents the National Electric Code (NEC) and associated legal requirements, and trains students in the application of regulations and proper use of testing instrumentation.

NC 304
Electrician Trainee: AC Circuit Concepts, Applied Electronics, and National Electric Code Application
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Introduces students to the study of AC theory. Explores inductance and capacitance, and the effect of their reactance on AC circuits. Develops student understanding of the application of electronic concepts and components, the National Electric Code (NEC) legal requirements, and how to apply regulations.

NC 305
Electrician Trainee: Digital Logic Circuits, Conductor Characteristics and Application, and National Electric Code
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Introduces students to digital logic concepts, and conductor characteristics and applications. Provides hands-on, real-world applications, including troubleshooting, problem solving and regulations compliance.

NC 306
Electrician Trainee: Overcurrent Protection, Lighting Systems, Basic Blueprints and Specifications, and National Electric Code
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Introduces students to the study of blueprints and specifications. Presents use and application of the National Electric Code to over current protection, panel boards, and lighting systems.

NC 307
Electrician Trainee: Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and the National Electric Code
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Focuses on the advanced concepts of blueprints and specifications in electrical work. Introduces students to the study of motor design and hands-on applications. Presents additional concepts from the National Electric Code.

NC 308
Electrician Trainee: Motor Control Principles, Generators and Power Supplies, and National Electric Code
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Introduces and explores techniques for controlling AC and DC motors. Examines conventional and breaking technologies for power generation. Presents and applies relevant National Electric Code.

NC 309
Electrician Trainee: Transformer Theory, Leadership, Management and Test Equipment
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Presents and explores the theory and field application of transformers. Addresses electrical test equipment operation and their use. Discusses special equipment for security systems. Introduces management and leadership principles for supervisors.

NC 310
Electrician Trainee: Specialty Systems
0 UNITS

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Grading Basis: Pass/No Pass only
Offered: All

Course Description:
Examines specialty electrical systems commonly found in building construction. Provides students with knowledge of fire alarm systems, closed-circuit television (CCTV) systems, telephone systems, cable television (CATV & MATV) systems, local area networks (LANs), fiber optic data systems, heating and air conditioning control systems, and lightning protection systems.

REACTIVATED COURSES

ES/A 115
Beginning Mountain Biking for Fitness
1 UNIT
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Laboratory: 3
Offered: Variable

Course Description:
Offers Friday bicycle rides in the foothill areas of San Diego County. Focuses on teaching the individual the following: how to ride the bike correctly, how to operate safely in a group, proper equipment necessary for group, individual riding, bike maintenance, off-road repair, and downhill and uphill riding. [D; CSU; UC]

COURSE MODIFICATIONS

BIOL 261
Principles of Human Physiology
4 UNITS
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Lecture: 3
Laboratory: 3
Offered: Fall, Spring
Prerequisite: CHEM 100 or **CHEM 102** or CHEM 170 or equivalent; BIOL 260 or equivalent
Recommended Preparation: ENGL 115 or equivalent; RDG 158 or the equivalent skill level as determined by the Southwestern College Reading Assessment or equivalent

Course Description:
Designed to cover the physiological concepts needed by the nursing paramedical professions or any transfer student requiring a thorough introduction to human physiology in preparation for more advanced upper-division course study. [D; CSU; UC; CAN-BIOL 12; BIOL 260 + BIOL 261 = CAN-BIOL SEQ B]

BIOL 265
General Microbiology
4 UNITS
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Lecture: 2
Laboratory: 6
Offered: Fall, Spring, Summer
Prerequisite: BIOL 100 and BIOL 101, or equivalent; CHEM 100 or **CHEM 102** or CHEM 170 or equivalent
Recommended Preparation: ENGL 115 or equivalent; RDG 158 or the equivalent skill level as determined by the Southwestern College Reading Assessment or equivalent

Course Description:
Introduces fundamental concepts, methods, and relevant applications of microbiology, including microbial structure, physiology, genetics, epidemiology, agents of disease, mechanisms of pathogenesis and resistance, approaches to control and treatment of disease, immunology, and biotechnology. Emphasizes laboratory activities, stressing cultivation, characterization, identification, and biotechnological applications involving microbes important in clinical medicine. [D; CSU; UC]