

**SAN DIEGO COMMUNITY COLLEGE DISTRICT
MESA, AND MIRAMAR COLLEGES
ASSOCIATE DEGREE COURSE OUTLINE**

SECTION I**SUBJECT AREA AND COURSE NUMBER:** Filipino 100**COURSE TITLE:**

Filipino American Experience

Units:

3

Letter Grade or Pass/No Pass Option

CATALOG COURSE DESCRIPTION:

This course is an overview of the history, cultures, values, contributions, experiences, and social struggles of Filipinos in America. Students apply theory and knowledge produced by the Filipino American community to analyze the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation. Students also critically evaluate the role of race and racism in Filipino American communities and experiences as well as the relevance of resistance, racial and social justice, and solidarity to current U.S. institutions and structures. This course is intended for anyone interested in the field of Ethnic Studies or the history and experiences of Filipino Americans.

REQUISITES:**Advisory:**

ENGL 101 with a grade of "C" or better, or equivalent

or

ENGL 105 with a grade of "C" or better, or equivalent

FIELD TRIP REQUIREMENTS:

May be required

TRANSFER APPLICABILITY:

Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

CID:**TOTAL LECTURE HOURS:**

48 - 54

TOTAL LAB HOURS:**TOTAL CONTACT HOURS:**

48 - 54

OUTSIDE-OF-CLASS HOURS:

96 - 108

TOTAL STUDENT LEARNING HOURS:

144 - 162

STUDENT LEARNING OBJECTIVES:

Upon successful completion of the course the student will be able to:

1. Analyze and articulate common ethnic studies concepts and terms in the context of Filipino American studies.
2. Describe Filipino cultures in the pre-Spanish Philippines.
3. Using theory and knowledge produced by the Filipino American community, explain how historical events in the Philippines, including periods of imperialism, colonization, nationalism, and decolonization, have influenced current Philippine society and Filipino American communities.
4. Critically analyze the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation during the various waves of Filipino immigrants to the U.S.
5. Describe and actively engage with anti-racist and anti-colonial practices and movements in the Filipino American community.
6. Critically analyze the intersection of race and racism with other aspects of Filipino American communities and experiences, including matriarchal family structure, values related to family and lifestyle, education, acculturation, and ethnic identity.
7. Examine U.S. laws and policies that have affected Filipino immigration and the legal status of Filipino Americans.
8. Evaluate the relevance of resistance, racial and social justice, and solidarity to current U.S. institutions and structures including immigration policy, the legal status of immigrants, and foreign policy.

SECTION II

1. COURSE OUTLINE AND SCOPE:

A. Outline Of Topics:

The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

- I. Overview of ethnic studies as an academic discipline and relevant concepts in the context of Filipino American studies
 - A. Ethnic studies epistemology
 - B. Production of theory and knowledge by the Filipino American community
 - C. Race, racism, and anti-racism
 - D. Ethnicity
 - E. Equity
 - F. Colonization and decolonization
 - G. Imperialism
 - H. Sovereignty
 - I. Liberation
- II. Historical events in the Philippines and their influence on current Philippine society and Filipino American communities
 - A. Before Spanish arrival
 - B. From the 16th through late 19th centuries
 1. Spanish conquest
 2. Settlement
 3. Colonization
 4. Resistance
 - C. American intervening period
 1. Philippine-American War
 2. Filipino nationalism
 3. Filipino Resistance Movement
 - D. Period towards Philippine independence: commonwealth
 - E. World War II and Japanese occupation
- III. History and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation
 - A. Early immigration to the U.S.: first wave

1. Spanish galleons
2. Early arrivals and settlements
- B. Immigration as U.S. nationals and laborers: second wave
 1. Pensionados
 2. Manongs
 3. Alaskeros
 4. Sakadas
 5. Discrimination in the U.S.
- C. Filipinos in the U.S. military: third wave
 1. World War II enlistments
 2. War brides
- D. Current migration: fourth wave
 1. Immigration Act of 1965
 2. Professional and naval/military immigration
- IV. Anti-racist and anti-colonial practices and movements in the Filipino American community
 - A. Collaboration with other ethnic groups
 - B. College activism and development of Filipino studies programs
 - C. Political activism
 1. Anti-Marcos movement
 2. Current political conditions
 3. Political justice and equity movements
 - D. Social activism
 1. Current social conditions
 2. Social justice and equity movements
- V. Intersection of race and racism with other aspects of Filipino American communities and experiences
 - A. Filipino American values
 1. Family structure
 2. Lifestyle
 - B. Filipino American youth
 1. Education
 2. Juvenile delinquency
 3. Culturally influenced values
 - C. Filipino American women
 1. Matriarchal family structure
 2. World of work
 - D. Identity issues
 1. Acculturation
 2. Ethnic identity
- VI. Relevance of resistance, racial and social justice, and solidarity to current U.S. institutions and structures
 - A. Education
 - B. Immigration policy
 - C. Legal status of immigrants
 - D. Foreign policy

B. Reading Assignments:

Reading assignments are required and may include, but are not limited to, the following:

- I. Course text(s).
- II. Articles from academic and professional journals, such as The Filipino American National Historical Society Journal and the Association for Asian American Studies Journal.
- III. Internet resources such as the Filipino American National Historical Society (FANHS).

C. Writing Assignments:

Writing assignments are required and may include, but are not limited to, the following:

- I. Research reports about the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation.
- II. Reflection paper about the intersection of race and racism with other aspects of Filipino American

- III. communities and experiences.
- IV. Summary evaluations of U.S. laws and policies that have affected Filipino immigration and the legal status of Filipino Americans.

D. Appropriate Outside Assignments:

Outside assignments may include, but are not limited to, the following:

- I. Completing reading and writing assignments.
- II. Conducting field research, such as interviewing a second-, third- or fourth-wave Filipino American immigrant about their lived experience.
- III. Preparing written papers or oral presentations.

E. Appropriate Assignments that Demonstrate Critical Thinking:

Critical thinking assignments are required and may include, but are not limited to, the following:

- I. Analyzing how historical events, including periods of imperialism, colonization, nationalism, and decolonization, have influenced current Philippine society and Filipino American communities.
- II. Assessing an immigrant experience by conducting an interview with a second-, third- or fourth-wave Filipino American immigrant about their lived experience.
- III. Comparing and contrasting cultural differences within the Filipino American community.
- IV. Evaluating policy positions of the U.S. government in terms of racial and social justice.

2. METHODS OF EVALUATION:

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

- I. Performance on objective and/or essay exams that test the student's knowledge and understanding of course content.
- II. Completion and quality of writing assignments, research projects, and oral presentations.
- III. Class participation, including computer-mediated participation such as class polls, collaborative documents, discussions, and messaging conversations.

3. METHODS OF INSTRUCTION:

Methods of instruction may include, but are not limited to, the following:

- * Audio-Visual
- * Distance Education (Fully online)
- * Lecture
- * Lecture Discussion
- * Other (Specify)
- * A. Guest Speakers.
- * B. Demonstration.
- * C. Field Trip or Field Assignment.

4. REQUIRED TEXTS AND SUPPLIES:

Textbooks may include, but are not limited to:

TEXTBOOKS:

1. Cordova, Fred. Filipinos: Forgotten Asian Americans, 1st ed. Kendall/Hunt, 1983, ISBN: 9780840328977
2. Espiritu, Yen Le. Home Bound: Filipino American Lives Across Cultures, Communities, and Countries, 1st ed. University of California Press, 2003, ISBN: 9780520235274
3. Lott, Juanita Tamayo. Golden Children: Legacy of Ethnic Studies, SF State, 1st ed. Eastwind, 2018, ISBN: 9780996351782
4. Manalansan, Martin F. and Espiritu, Augusto, eds. Filipino Studies: Palimpsests of Nation and

Diaspora, 1st ed. NYU Press, 2016, ISBN: 9781479884353

5. Root, Maria P. P., ed. Filipino Americans: Transformation and Identity, 1st ed. Sage, 1997, ISBN: 9780761905790

MANUALS:

PERIODICALS:

SOFTWARE:

SUPPLIES:

ORIGINATOR: Judy Patacsil

ORIGINATION DATE: 05/12/2021

PROPOSAL ORIGINATOR: Cesar Lopez

CO-CONTRIBUTOR(S)

PROPOSAL DATE: 03/07/2022

**SAN DIEGO COMMUNITY COLLEGE DISTRICT
COURSE PROPOSAL IMPACT REPORT**

COURSE TO BE PROPOSED: FILI 100
Filipino American Experience

ACTIVE/APPROVED COURSES IMPACTED:

FILI 100 Filipino American Experience (28866)

DISTRICT GENERAL EDUCATION:

D Social and Behavioral Sciences

ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:

SAN DIEGO COMMUNITY COLLEGE DISTRICT

MESA AND MIRAMAR COLLEGES

Course Outline of Record: Curriculum Proposal Report

SECTION I

- I. **Subject Area:** Filipino
- II. **Course Number:** 100
- III. **Course Title:** Filipino American Experience
- IV. **Disciplines (Instructor Minimum Qualifications):** Asian American Studies
- V.
- VI. **Family:**
- VII. **Current Short Title:** Filipino American Experience
- VIII. **Course Is Active/Where?** MIRAMAR
- IX. **Originating Campus:** MESA
- X. **Action Proposed:** Course Activation (Currently active at another college)
- XI. **Distance Education Proposed At:** Miramar
- XII. **Proposal Originating Date:** 03/07/2022
- XIII. **Proposed Start Semester:** Fall 2024
- XIV. **Field Trip:** May be required
- XV. **Grading Option:** Letter Grade or Pass/No Pass Option
- XVI. **Current Short Description:** Overview of Filipinos in America.

SECTION II

COURSE ENROLLMENT INFORMATION

- I. **Requisites:**
Advisory: ENGL 101 with a grade of "C" or better, or equivalent.
or Advisory: ENGL 105 with a grade of "C" or better, or equivalent.
- II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
- III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
- IV. **Repeatability:** Course may be taken 1 time(s)
- V. **Course Equivalency:** No
- VI. **Additional Information:**
- VII. **Additional Textbook Information:** Texts are most current editions as of 9/22.

COURSE ANALYSIS DATA

- I. **Reason for Proposed Action:** Reactivation Proposal for Mesa, including distance ed approval for fully online.
Change discipline from Ethnic Studies Asian American Studies as agreed by all campuses. Verified texts are most current editions - note that many are classics.
- II. **How Does The Course Fit The College Mission?** 1. Transfer
- III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
- IV. **Current College/District Purpose:** 1. District general education
- V. **Extraordinary Cost to the College:** N/A.
- VI. **Library Resource Materials:** .

GENERAL EDUCATION ANALYSIS

CSU General Education:

- F Area F. Ethnic Studies
- D Area D. Social Sciences

District General Education:

- D Social and Behavioral Sciences

District Multicultural Requirement:

Yes

IGETC:

Area 4 - Social and Behavioral Sciences

UC Transfer Course:

Yes

REQUISITES ANALYSIS

Demonstrated ability to read and write at the transfer level.

- I. Course: ENGL 105** Read, summarize, and critically interpret literary works of fiction, drama, and poetry.
- II. Course: ENGL 101** Read, analyze, discuss, and evaluate a variety of texts.
- III. Course: ENGL 105** Write clear and coherent essays on expository and argumentative topics related to literature, using the elements and characteristics of that literature.
- IV. Course: ENGL 101** Identify arguments, patterns, and strategies in a variety of texts.
- V. Course: ENGL 101** Write, revise, and edit a total of at least 6,000 graded words.
- VI. Course: ENGL 105** Interpret representative examples of the standard literary genres and analyze them according to basic literary theories.
- VII. Course: ENGL 105** Read academic expository and argumentative literary criticism related to literary topics for main points, interpretation, meaning, and structure, and summarize, interpret, and analyze this criticism.
- VIII. Course: ENGL 101** Compose a variety of essays that demonstrate increasing familiarity with and expertise in academic writing.
- IX. Course: ENGL 105** Write college research papers that demonstrate both proper documentation and adequate library research.
- X. Course: ENGL 101** Select a variety of research strategies using appropriate documentation.
- XI. Course: ENGL 101** Apply critical thinking in reading, writing, and class discussion.
- XII. Course: ENGL 105** Evaluate and apply critical thinking in the process of reading and writing as well as in class discussion.
- XIII. Course: ENGL 105** Interpret influence of literary context, including historical, social, political, and cultural perspectives.

SECTION III

COURSE DISTANCE EDUCATION INFORMATION

- I. MIRAMAR**
- II. Distance Education Methods of Instruction:** 1. Fully Online
- III. Other Distance Education Methods:**
- IV. Type and frequency of contact may include, but is not limited to:**
 - 1. Announcements
weekly
 - 2. Collaborative Web Documents
as assigned
 - 3. Conferencing
as assigned
 - 4. Discussion Board
at least three times during the term with the instructor and with other students
 - 5. Email/Message System
as needed
 - 6. Field Trips
as assigned
 - 7. Group Meetings
as assigned
 - 8. Individual Meetings

- as needed
- 9. Individualized Assignment Feedback
 - as assigned
- 10. Synchronous or Asynchronous Video
 - as assigned
- 11. Telephone Contact
 - as needed
- V. **List of Techniques:** Students interact with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via email, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.
- VI. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.
- VII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provides a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
- VIII. **Audio Visual Library Materials:** NO
- IX. **MESA**
- X. **Distance Education Methods of Instruction:** 1. Fully Online
- XI. **Other Distance Education Methods:**
- XII. **Type and frequency of contact may include, but is not limited to:**
 - 1. Announcements
 - As needed
 - Participant/s:** Faculty to Student/s
 - 2. Discussion Board
 - Weekly
 - Participant/s:** Faculty to Student/s , Among Students
 - 3. Email/Message System
 - As needed
 - Participant/s:** Faculty to Student/s , Among Students
 - 4. Synchronous or Asynchronous Video
 - Frequent
 - Participant/s:** Faculty to Student/s , Among Students
 - 5. Telephone Contact
 - As needed
 - Participant/s:** Faculty to Student/s , Among Students
- XIII. **List of Techniques:** Online instruction includes regular student-to-student and instructor-to-student communication. Announcements from the instructor to the students will be used as needed. Telephone calls between students and the instructor may be used to discuss questions and concerns throughout the course. E-mail/Messaging may be used for asynchronous instructor-to-student and student-to-student communication. Chat rooms may be used for synchronous interaction between students and between the instructor and students. Threaded discussions may be used for instructor-to-student and student-to-student asynchronous group communication. Live-classroom may be used for synchronous online lectures, meetings and office hour meetings as appropriate. Video, audio, learning objects and archived live-classroom lectures may be included for students to interact with asynchronously where appropriate. Assignments and tests that will be used in the Distance Education course will be exactly the same as those in the traditional course. Students will submit all course work (tests and assignments) electronically to the instructor for grading.
- XIV. **How to Evaluate Students for Achieved Outcomes:** The evaluation methods will mirror the on-campus course as specified in the course outline. The feedback on assignments and tests will be submitted electronically to the student.
- XV. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
- XVI. **Audio Visual Library Materials:** NO

SECTION IV

COURSE STUDENT LEARNING OUTCOME(S)

MESA

MIRAMAR

- Students will demonstrate knowledge of the influence of global colonial powers on the Philippines which contribute to immigration of Filipinos to the United States.

SECTION V

COURSE DATA ADMINISTRATION ELEMENTS

I. Codes:

California Classification: (Y Credit Course)

TOP Code: 2203.00 Ethnic Studies

SAM Code: E - Non Occupational

Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).

Funding Agency Category (CB23): Not Applicable (funding not used to develop course)

Course Program Status (CB24): Program-applicable

Course Gen Education Status (CB25): Y = Not applicable

Course Support Course Status (CB26): N = Course is not a support course

Major Restriction Code: NONE

II. Lect Units: 3.00

Total Units: 3

Lecture Hours Min: 48.00 **Max:** 54.00

Lab Hours Min: 0.00 **Max:** 0.00

Other Hours Min: 0.00 **Max:** 0.00

Total Contact Hours Min: 48.00 **Max:** 54.00

Outside-of-Class Hours Min: 96.00 **Max:** 108.00

Total Student Learning Hours Min: 144.00 **Max:** 162.00

FTEF Lecture Min: 0.2000 **Max:**

FTEF Lab Min: 0.0000 **Max:**

FTEF Total Min: 0.2000 **Max:**

III. Last Time Pre/Co Requisite Update: 03/07/2022

IV. Last Outline Revision Date: 12/10/2020

V. CIC Approval:

VI. BOT Approval:

VII. State Approval:

VIII. Revised State Approval:

IX. Course Approval Effective Date:

SECTION VI

CREDIT FOR PRIOR LEARNING

FILI 100

Previous Report

CIC Approval: 05/27/2021
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM: Fall 2021

SAN DIEGO COMMUNITY COLLEGE DISTRICT MIRAMAR COLLEGE ASSOCIATE DEGREE COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER: Filipino 100

COURSE TITLE:

Filipino American Experience

Units:

3

Letter Grade or Pass/No Pass Option

CATALOG COURSE DESCRIPTION:

This course is an overview of the history, cultures, values, contributions, experiences, and social struggles of Filipinos in America. Students apply theory and knowledge produced by the Filipino American community to analyze the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation. Students also critically evaluate the role of race and racism in Filipino American communities and experiences as well as the relevance of resistance, racial and social justice, and solidarity to current U.S. institutions and structures. This course is intended for anyone interested in the field of Ethnic Studies or the history and experiences of Filipino Americans.

REQUISITES:

Advisory:

ENGL 101 with a grade of "C" or better, or equivalent
or
ENGL 105 with a grade of "C" or better, or equivalent

FIELD TRIP REQUIREMENTS:

May be required

TRANSFER APPLICABILITY:

Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

CID:

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Upon successful completion of the course the student will be able to:

1. Analyze and articulate common ethnic studies concepts and terms in the context of Filipino American studies.
2. Describe Filipino cultures in the pre-Spanish Philippines.
3. Using theory and knowledge produced by the Filipino American community, explain how historical events in the Philippines, including periods of imperialism, colonization, nationalism, and decolonization, have influenced current

Current Report

FILI 100

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

SAN DIEGO COMMUNITY COLLEGE DISTRICT MESA, AND MIRAMAR COLLEGES ASSOCIATE DEGREE COURSE OUTLINE

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Philippine society and Filipino American communities.

4. Critically analyze the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation during the various waves of Filipino immigrants to the U.S.

5. Describe and actively engage with anti-racist and anti-colonial practices and movements in the Filipino American community.

6. Critically analyze the intersection of race and racism with other aspects of Filipino American communities and experiences, including matriarchal family structure, values related to family and lifestyle, education, acculturation, and ethnic identity.

7. Examine U.S. laws and policies that have affected Filipino immigration and the legal status of Filipino Americans.

8. Evaluate the relevance of resistance, racial and social justice, and solidarity to current U.S. institutions and structures including immigration policy, the legal status of immigrants, and foreign policy.

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social struggles, and ethnic identity and affirmation during the various waves of Filipino immigrants to the U.S.

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7. Examine U.S. laws and policies that have affected Filipino immigration and the legal status of Filipino Americans.

8. Evaluate the relevance of resistance, racial and social justice, and solidarity to current U.S. institutions and structures including immigration policy, the legal status of immigrants, and foreign policy.

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 - A. Filipino American values
 1. Family structure
 2. Lifestyle
 - B. Filipino American youth
 1. Education
 2. Juvenile delinquency
 3. Culturally influenced values
 - C. Filipino American women
 1. Matriarchal family structure
 2. World of work
 - D. Identity issues
 1. Acculturation
 2. Ethnic identity
- VI. Relevance of resistance racial and social justice and solidarity to current U.S. institutions and structures
 - A. Education
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 - C. Legal status of immigrants
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B. Reading Assignments:

Reading assignments are required and may include, but are not limited to, the following:

- I. Course text(s).
- II. Articles from academic and professional journals, such as The Filipino American National Historical Society Journal and the Association for Asian American Studies Journal.
- III. Internet resources such as the Filipino American National Historical Society (FANHS).

C. Writing Assignments:

Writing assignments are required and may include, but are not limited to, the following:

- I. Research reports about the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation.
- II. Reflection paper about the intersection of race and racism with other aspects of Filipino American communities and experiences.
- III. communities and experiences.
- IV. Summary evaluations of U.S. laws and policies that have affected Filipino immigration and the legal status of Filipino Americans.

D. Appropriate Outside Assignments:

Outside assignments may include, but are not limited to, the following:

- I. Completing reading and writing assignments.
- II. Conducting field research, such as interviewing a second-, third- or fourth-wave Filipino American immigrant about their lived experience.
- III. Preparing written papers or oral presentations.

E. Appropriate Assignments that Demonstrate Critical Thinking:

Critical thinking assignments are required and may include, but are not limited to, the following:

- I. Analyzing how historical events, including periods of imperialism, colonization, nationalism, and decolonization, have influenced current Philippine society and Filipino American communities.
- II. Assessing an immigrant experience by conducting an interview with a second-, third- or fourth-wave Filipino American immigrant about their lived experience.
- III. Comparing and contrasting cultural differences within the Filipino American community.
- IV. Evaluating policy positions of the U.S. government in terms of racial and social justice.

2. METHODS OF EVALUATION:

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

- I. Performance on objective and/or essay exams that test the student's knowledge and understanding of course content.
- II. Completion and quality of writing assignments, research projects, and oral presentations.
- III. Class participation, including computer-mediated participation such as class polls, collaborative documents, discussions, and messaging conversations.

3. METHODS OF INSTRUCTION:

V. Intersection of race and racism with other aspects of Filipino American communities and experiences

- A. Filipino American values
 1. Family structure
 2. Lifestyle
- B. Filipino American youth
 1. Education
 2. Juvenile delinquency
 3. Culturally influenced values
- C. Filipino American women
 1. Matriarchal family structure
 2. World of work
- D. Identity issues
 1. Acculturation
 2. Ethnic identity

VI. Relevance of resistance racial and social justice and solidarity to current U.S. institutions and structures

- A. Education
- B. Immigration policy
- C. Legal status of immigrants
- D. Foreign policy

B. Reading Assignments:

Reading assignments are required and may include, but are not limited to, the following:

- I. Course text(s).
- II. Articles from academic and professional journals, such as The Filipino American National Historical Society Journal and the Association for Asian American Studies Journal.
- III. Internet resources such as the Filipino American National Historical Society (FANHS).

C. Writing Assignments:

Writing assignments are required and may include, but are not limited to, the following:

- I. Research reports about the history and lived experiences of Filipino Americans in relation to integration, acculturation, social struggles, and ethnic identity and affirmation.
- II. Reflection paper about the intersection of race and racism with other aspects of Filipino American communities and experiences.
- III. communities and experiences.
- IV. Summary evaluations of U.S. laws and policies that have affected Filipino immigration and the legal status of Filipino Americans.

D. Appropriate Outside Assignments:

Outside assignments may include, but are not limited to, the following:

- I. Completing reading and writing assignments.
- II. Conducting field research, such as interviewing a second-, third- or fourth-wave Filipino American immigrant about their lived experience.
- III. Preparing written papers or oral presentations.

E. Appropriate Assignments that Demonstrate Critical Thinking:

Critical thinking assignments are required and may include, but are not limited to, the following:

- I. Analyzing how historical events, including periods of imperialism, colonization, nationalism, and decolonization, have influenced current Philippine society and Filipino American communities.
- II. Assessing an immigrant experience by conducting an interview with a second-, third- or fourth-wave Filipino American immigrant about their lived experience.
- III. Comparing and contrasting cultural differences within the Filipino American community.
- IV. Evaluating policy positions of the U.S. government in terms of racial and social justice.

2. METHODS OF EVALUATION:

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

- I. Performance on objective and/or essay exams that test the student's knowledge and understanding of course content.
- II. Completion and quality of writing assignments, research projects, and oral presentations.
- III. Class participation, including computer-mediated participation such as class polls, collaborative documents, discussions, and messaging conversations.

3. METHODS OF INSTRUCTION:

Methods of instruction may include, but are not limited to, the following:

Methods of instruction may include, but are not limited to, the following:

- * Audio-Visual
- * Distance Education (Fully online)
- * Lecture
- * Lecture Discussion
- * Other (Specify)
- * A. Guest speakers.
- * B. Demonstration.
- * C. Field trip or field assignment.

4. REQUIRED TEXTS AND SUPPLIES:

Textbooks may include, but are not limited to:

TEXTBOOKS:

1. Cordova, Fred. Filipinos: Forgotten Asian Americans, 1st ed. Kendall/Hunt, 1983, ISBN: 9780840328977
2. Espiritu, Yen Le. Home Bound: Filipino American Lives Across Cultures, Communities, and Countries, 1st ed. University of California Press, 2003, ISBN: 9780520235274
3. Lott, Juanita Tamayo. Golden Children: Legacy of Ethnic Studies, SF State, 1st ed. Eastwind, 2018, ISBN: 9780996351782
4. Manalansan, Martin F. and Espiritu, Augusto, eds. Filipino Studies: Palimpsests of Nation and Diaspora, 1st ed. NYU Press, 2016, ISBN: 9781479884353
5. Root, Maria P. P., ed. Filipino Americans: Transformation and Identity, 1st ed. Sage, 1997, ISBN: 9780761905790

MANUALS:

PERIODICALS:

SOFTWARE:

SUPPLIES:

ORIGINATOR: Judy Patacsil

CO-CONTRIBUTOR(S) Mara Palma-Sanft

DATE: 05/12/2021

Status: Active

Date Printed: 02/24/2023

- * Audio-Visual
- * Distance Education (Fully online)
- * Lecture
- * Lecture Discussion
- * Other (Specify)
- * A. Guest Speakers.
- * B. Demonstration.
- * C. Field Trip or Field Assignment.

4. REQUIRED TEXTS AND SUPPLIES:

Textbooks may include, but are not limited to:

TEXTBOOKS:

1. Cordova, Fred. Filipinos: Forgotten Asian Americans, 1st ed. Kendall/Hunt, 1983, ISBN: 9780840328977
2. Espiritu, Yen Le. Home Bound: Filipino American Lives Across Cultures, Communities, and Countries, 1st ed. University of California Press, 2003, ISBN: 9780520235274
3. Lott, Juanita Tamayo. Golden Children: Legacy of Ethnic Studies, SF State, 1st ed. Eastwind, 2018, ISBN: 9780996351782
4. Manalansan, Martin F. and Espiritu, Augusto, eds. Filipino Studies: Palimpsests of Nation and Diaspora, 1st ed. NYU Press, 2016, ISBN: 9781479884353
5. Root, Maria P. P., ed. Filipino Americans: Transformation and Identity, 1st ed. Sage, 1997, ISBN: 9780761905790

MANUALS:

PERIODICALS:

SOFTWARE:

SUPPLIES:

ORIGINATOR: Judy Patacsil

ORIGINATION DATE: 05/12/2021

PROPOSAL ORIGINATOR: Cesar Lopez

CO-CONTRIBUTOR(S)

PROPOSAL DATE: 03/07/2022

Status: Launched

Date Printed: 02/24/2023

Previous Report

SAN DIEGO COMMUNITY COLLEGE DISTRICT

MIRAMAR COLLEGE

Course Outline of Record:
Curriculum Proposal Report

SECTION I

- I. Subject Area: Filipino
- II. Course Number: 100
- III. Course Title: Filipino American Experience
- IV. Disciplines (Instructor Minimum Qualifications): Ethnic Studies
- V.
- VI. Family:
- VII. Current Short Title: Filipino American Experience
- VIII. Course Is Active/Where? MIRAMAR
- IX. Originating Campus: MIRAMAR
- X. Action Proposed: Course Revision (May Include Activation)
- XI. Distance Education Proposed At: Miramar
- XII. Proposal Originating Date: 05/12/2021
- XIII. Proposed Start Semester: Fall 2021
- XIV. Field Trip: May be required
- XV. Grading Option: Letter Grade or Pass/No Pass Option
- XVI. Current Short Description: Overview of Filipinos in America.

SECTION II

COURSE ENROLLMENT INFORMATION

- I. Requisites:
Advisory: ENGL 101 with a grade of "C" or better, or equivalent.
or Advisory: ENGL 105 with a grade of "C" or better, or equivalent.
- II. Current Degree Applicability: Associate Degree Credit & transfer to CSU
- III. Current Basic Skills Designation: N - Not a Basic Skills Course
- IV. Repeatability: Course may be taken 1 time(s)
- V. Course Equivalency: No
- VI. Additional Information:
- VII. Additional Textbook Information:

COURSE ANALYSIS DATA

- I. Reason for Proposed Action: Urgent update and reorganization of course content to meet CSU GE area F; removal of alternative Sociology discipline assignment. (Course revision is for six year review.)
- II. How Does The Course Fit The College Mission? 1. Transfer
- III. Current Transfer Options: 1. CSU General Education 2. IGETC 3. UC Transfer Course List
- IV. Proposed College/District Purpose: 1. District general education
- V. Extraordinary Cost to the College: N/A.
- VI. Library Resource Materials: .

GENERAL EDUCATION ANALYSIS

CSU General Education:
F Area F. Ethnic Studies
D Area D. Social Sciences

Current Report

SAN DIEGO COMMUNITY COLLEGE DISTRICT

MESA AND MIRAMAR COLLEGES

Course Outline of Record:
Curriculum Proposal Report

SECTION I

- I. Subject Area: Filipino
- II. Course Number: 100
- III. Course Title: Filipino American Experience
- IV. Disciplines (Instructor Minimum Qualifications): Asian American Studies
- V.
- VI. Family:
- VII. Current Short Title: Filipino American Experience
- VIII. Course Is Active/Where? MIRAMAR
- IX. Originating Campus: MESA
- X. Action Proposed: Course Activation (Currently active at another college)
- XI. Distance Education Proposed At: Miramar
- XII. Proposal Originating Date: 03/07/2022
- XIII. Proposed Start Semester: Fall 2024
- XIV. Field Trip: May be required
- XV. Grading Option: Letter Grade or Pass/No Pass Option
- XVI. Current Short Description: Overview of Filipinos in America.

SECTION II

COURSE ENROLLMENT INFORMATION

- I. Requisites:
Advisory: ENGL 101 with a grade of "C" or better, or equivalent.
or Advisory: ENGL 105 with a grade of "C" or better, or equivalent.
- II. Current Degree Applicability: Associate Degree Credit & transfer to CSU
- III. Current Basic Skills Designation: N - Not a Basic Skills Course
- IV. Repeatability: Course may be taken 1 time(s)
- V. Course Equivalency: No
- VI. Additional Information:
- VII. Additional Textbook Information: Texts are most current editions as of 9/22.

COURSE ANALYSIS DATA

- I. Reason for Proposed Action: Reactivation Proposal for Mesa, including distance ed approval for fully online. Change discipline from Ethnic Studies Asian American Studies as agreed by all campuses. Verified texts are most current editions - note that many are classics.
- II. How Does The Course Fit The College Mission? 1. Transfer
- III. Current Transfer Options: 1. CSU General Education 2. IGETC 3. UC Transfer Course List
- IV. Current College/District Purpose: 1. District general education
- V. Extraordinary Cost to the College: N/A.
- VI. Library Resource Materials: .

GENERAL EDUCATION ANALYSIS

CSU General Education:
F Area F. Ethnic Studies
D Area D. Social Sciences

District General Education:
D Social and Behavioral Sciences

District Multicultural Requirement:
Yes

IGETC:
Area 4 - Social and Behavioral Sciences

UC Transfer Course:
Yes

REQUISITES ANALYSIS

Demonstrated ability to read and write at the transfer level.

- | | | |
|-------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. | Course: ENGL 101 | Read, analyze, discuss, and evaluate a variety of texts. |
| II. | Course: ENGL 101 | Identify arguments, patterns, and strategies in a variety of texts. |
| III. | Course: ENGL 105 | Write clear and coherent essays on expository and argumentative topics related to literature, using the elements and characteristics of that literature. |
| IV. | Course: ENGL 101 | Compose a variety of essays that demonstrate increasing familiarity with and expertise in academic writing. |
| V. | Course: ENGL 105 | Write college research papers that demonstrate both proper documentation and adequate library research. |
| VI. | Course: ENGL 101 | Select a variety of research strategies using appropriate documentation. |
| VII. | Course: ENGL 105 | Evaluate and apply critical thinking in the process of reading and writing as well as in class discussion. |
| VIII. | Course: ENGL 101 | Apply critical thinking in reading, writing, and class discussion. |

SECTION III

COURSE DISTANCE EDUCATION INFORMATION

- I. **MIRAMAR**
- II. **Distance Education Methods of Instruction:** 1. Fully Online
- III. **Other Distance Education Methods:**
- IV. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
 2. Collaborative Web Documents
as assigned
 3. Conferencing
as assigned
 4. Discussion Board
at least three times during the term with the instructor and with other students
 5. Email/Message System
as needed
 6. Field Trips
as assigned
 7. Group Meetings
as assigned
 8. Individual Meetings
as needed
 9. Individualized Assignment Feedback
as assigned
 10. Synchronous or Asynchronous Video
as assigned
 11. Telephone Contact
as needed
- V. **List of Techniques:** Students interact with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via email, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

District General Education:
D Social and Behavioral Sciences

District Multicultural Requirement:
Yes

IGETC:
Area 4 - Social and Behavioral Sciences

UC Transfer Course:
Yes

REQUISITES ANALYSIS

Demonstrated ability to read and write at the transfer level.

- | | | |
|-------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. | Course: ENGL 105 | Read, summarize, and critically interpret literary works of fiction, drama, and poetry. |
| II. | Course: ENGL 101 | Read, analyze, discuss, and evaluate a variety of texts. |
| III. | Course: ENGL 105 | Write clear and coherent essays on expository and argumentative topics related to literature, using the elements and characteristics of that literature. |
| IV. | Course: ENGL 101 | Identify arguments, patterns, and strategies in a variety of texts. |
| V. | Course: ENGL 101 | Write, revise, and edit a total of at least 6,000 graded words. |
| VI. | Course: ENGL 105 | Interpret representative examples of the standard literary genres and analyze them according to basic literary theories. |
| VII. | Course: ENGL 105 | Read academic expository and argumentative literary criticism related to literary topics for main points, interpretation, meaning, and structure, and summarize, interpret, and analyze this criticism. |
| VIII. | Course: ENGL 101 | Compose a variety of essays that demonstrate increasing familiarity with and expertise in academic writing. |
| IX. | Course: ENGL 105 | Write college research papers that demonstrate both proper documentation and adequate library research. |
| X. | Course: ENGL 101 | Select a variety of research strategies using appropriate documentation. |
| XI. | Course: ENGL 101 | Apply critical thinking in reading, writing, and class discussion. |
| XII. | Course: ENGL 105 | Evaluate and apply critical thinking in the process of reading and writing as well as in class discussion. |
| XIII. | Course: ENGL 105 | Interpret influence of literary context, including historical, social, political, and cultural perspectives. |

SECTION III

COURSE DISTANCE EDUCATION INFORMATION

- I. **MIRAMAR**
- II. **Distance Education Methods of Instruction:** 1. Fully Online
- III. **Other Distance Education Methods:**
- IV. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
 2. Collaborative Web Documents
as assigned
 3. Conferencing
as assigned
 4. Discussion Board
at least three times during the term with the instructor and with other students
 5. Email/Message System
as needed
 6. Field Trips
as assigned
 7. Group Meetings
as assigned
 8. Individual Meetings
as needed

- VI. How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.
- VII. Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provides a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
- VIII. Audio Visual Library Materials:** NO

SECTION IV

COURSE STUDENT LEARNING OUTCOME(S)

MIRAMAR

- Students will demonstrate knowledge of the influence of global colonial powers on the Philippines which contribute to immigration of Filipinos to the United States.

SECTION V

COURSE DATA ADMINISTRATION ELEMENTS

I. Codes:

California Classification: (Y Credit Course)

TOP Code: 2203.00 Ethnic Studies

SAM Code: E - Non Occupational

- Individualized Assignment Feedback as assigned
- Synchronous or Asynchronous Video as assigned
- Telephone Contact as needed

V. List of Techniques: Students interact with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via email, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

VI. How to Evaluate Students for Achieved Outcomes: Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

VII. Additional Resources/Materials/Information: Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provides a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. Audio Visual Library Materials: NO

IX. MESA

X. Distance Education Methods of Instruction: 1. Fully Online

XI. Other Distance Education Methods:

XII. Type and frequency of contact may include, but is not limited to:

- Announcements
As needed
Participant/s: Faculty to Student/s
- Discussion Board
Weekly
Participant/s: Faculty to Student/s , Among Students
- Email/Message System
As needed
Participant/s: Faculty to Student/s , Among Students
- Synchronous or Asynchronous Video
Frequent
Participant/s: Faculty to Student/s , Among Students
- Telephone Contact
As needed
Participant/s: Faculty to Student/s , Among Students

XIII. List of Techniques: Online instruction includes regular student-to-student and instructor-to-student communication. Announcements from the instructor to the students will be used as needed. Telephone calls between students and the instructor may be used to discuss questions and concerns throughout the course. E-mail/Messaging may be used for asynchronous instructor-to-student and student-to-student communication. Chat rooms may be used for synchronous interaction between students and between the instructor and students. Threaded discussions may be used for instructor-to-student and student-to-student asynchronous group communication. Live-classroom may be used for synchronous online lectures, meetings and office hour meetings as appropriate. Video, audio, learning objects and archived live-classroom lectures may be included for students to interact with asynchronously where appropriate. Assignments and tests that will be used in the Distance Education course will be exactly the same as those in the traditional course. Students will submit all course work (tests and assignments) electronically to the instructor for grading.

XIV. How to Evaluate Students for Achieved Outcomes: The evaluation methods will mirror the on-campus course as specified in the course outline. The feedback on assignments and tests will be submitted electronically to the student.

XV. Additional Resources/Materials/Information: SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. Audio Visual Library Materials: NO

SECTION IV

Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).

Funding Agency Category (CB23): Not Applicable (funding not used to develop course)

Course Program Status (CB24): Program-applicable

Course Gen Education Status (CB25): Y = Not applicable

Course Support Course Status (CB26): N = Course is not a support course

Major Restriction Code: NONE

II. Lect Units: 3.00

Total Units: 3

Lecture Hours Min: 48.00 Max: 54.00

Lab Hours Min: 0.00 Max: 0.00

Other Hours Min: 0.00 Max: 0.00

Total Contact Hours Min: 48.00 Max: 54.00

Outside-of-Class Hours Min: 96.00 Max: 108.00

Total Student Learning Hours Min: 144.00 Max: 162.00

FTEF Lecture Min: 0.2000 Max:

FTEF Lab Min: 0.0000 Max:

FTEF Total Min: 0.2000 Max:

III. Last Time Pre/Co Requisite Update: 05/12/2021

IV. Last Outline Revision Date: 12/10/2020

V. CIC Approval: 05/27/2021

VI. BOT Approval:

VII. State Approval:

VIII. Revised State Approval:

IX. Course Approval Effective Date: Fall 2021

SECTION VI

CREDIT FOR PRIOR LEARNING

COURSE STUDENT LEARNING OUTCOME(S)

MESA

MIRAMAR

- Students will demonstrate knowledge of the influence of global colonial powers on the Philippines which contribute to immigration of Filipinos to the United States.

SECTION V

COURSE DATA ADMINISTRATION ELEMENTS

I. Codes:

California Classification: (Y Credit Course)

TOP Code: 2203.00 Ethnic Studies

SAM Code: E - Non Occupational

Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).

Funding Agency Category (CB23): Not Applicable (funding not used to develop course)

Course Program Status (CB24): Program-applicable

Course Gen Education Status (CB25): Y = Not applicable

Course Support Course Status (CB26): N = Course is not a support course

Major Restriction Code: NONE

II. Lect Units: 3.00

Total Units: 3

Lecture Hours Min: 48.00 Max: 54.00

Lab Hours Min: 0.00 Max: 0.00

Other Hours Min: 0.00 Max: 0.00

Total Contact Hours Min: 48.00 Max: 54.00

Outside-of-Class Hours Min: 96.00 Max: 108.00

Total Student Learning Hours Min: 144.00 Max: 162.00

FTEF Lecture Min: 0.2000 Max:

FTEF Lab Min: 0.0000 Max:

FTEF Total Min: 0.2000 Max:

III. Last Time Pre/Co Requisite Update: 03/07/2022

IV. Last Outline Revision Date: 12/10/2020

V. CIC Approval:

VI. BOT Approval:

VII. State Approval:

VIII. Revised State Approval:

IX. Course Approval Effective Date:

SECTION VI

CREDIT FOR PRIOR LEARNING

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Andrew Lowe

Origination Date:01/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Edit restricted elective course list to include 141A and 141B

Attached Documents:

[CCCCO Narrative Biology AS](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|--|--------------|
|----------------------------------------|--|--------------|

| | | |
|-----------|----------------------------------------------------|---|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
|-----------|----------------------------------------------------|---|

| SELECT 4 TO 9 UNITS FROM THE FOLLOWING: | | UNITS |
|------------------------------------------------|--|--------------|
|------------------------------------------------|--|--------------|

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
|-----------|-----------------------------------------------------|---|

| | | |
|----------|----------------------------------------|---|
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
|----------|----------------------------------------|---|

| | | |
|-----------|-------------------------------------------|---|
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
|-----------|-------------------------------------------|---|

| SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------------------|--|--------------|
|---------------------------------------------------------|--|--------------|

| | | |
|-----------|-------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
|-----------|-------------------------------|---|

| | | |
|-----------|--------------------------------|---|
| ACCT 116B | Managerial Accounting *Active* | 4 |
|-----------|--------------------------------|---|

| | | |
|----------|-------------------------|---|
| BIOL 115 | Marine Biology *Active* | 4 |
|----------|-------------------------|---|

| | | |
|----------|-------------------------------|---|
| BIOL 205 | General Microbiology *Active* | 5 |
|----------|-------------------------------|---|

| | | |
|----------|------------------------------------------------------------|---|
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
|----------|------------------------------------------------------------|---|

| | | |
|----------|------------------------|---|
| BIOL 230 | Human Anatomy *Active* | 4 |
|----------|------------------------|---|

| | | |
|----------|---------------------------|---|
| BIOL 235 | Human Physiology *Active* | 4 |
|----------|---------------------------|---|

| | | |
|----------|-----------------------------------------------------------|---|
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
|----------|-----------------------------------------------------------|---|

| | | |
|----------|-----------------------------------------|---|
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
|----------|-----------------------------------------|---|

| | | |
|-----------|--------------------------------------------|---|
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
|-----------|--------------------------------------------|---|

| | | |
|----------|---------------------------|---|
| CISC 190 | Java Programming *Active* | 4 |
|----------|---------------------------|---|

| | | |
|----------|----------------------------|---|
| CISC 192 | C/C++ Programming *Active* | 4 |
|----------|----------------------------|---|

| | | |
|----------|-------------------------------------|---|
| MATH 116 | College and Matrix Algebra *Active* | 3 |
|----------|-------------------------------------|---|

| | | |
|----------|--------------------------------|---|
| MATH 119 | Elementary Statistics *Active* | 3 |
|----------|--------------------------------|---|

| | | |
|----------|-------------------------------------------------|---|
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
|----------|-------------------------------------------------|---|

| | | |
|----------|------------------------------------------|---|
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
|----------|------------------------------------------|---|

| | | |
|-----------|--------------------------|---|
| MATH 141A | Precalculus I *Launched* | 4 |
|-----------|--------------------------|---|

| | | |
|-----------|---------------------------|---|
| MATH 141B | Precalculus II *Launched* | 4 |
|-----------|---------------------------|---|

| | | |
|----------|--------------------------------------------|---|
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
|----------|--------------------------------------------|---|

| | | |
|----------|---------------------------------------------|---|
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
|----------|---------------------------------------------|---|

| | | |
|----------|--------------------------|---|
| PHYS 125 | General Physics *Active* | 5 |
|----------|--------------------------|---|

| | | |
|----------|-----------------------------|---|
| PHYS 126 | General Physics II *Active* | 5 |
|----------|-----------------------------|---|

| | | |
|----------|--------------------|---|
| PHYS 195 | Mechanics *Active* | 5 |
|----------|--------------------|---|

| | | |
|----------|------------------------------------|---|
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
|----------|------------------------------------|---|

| | | |
|----------|-------------------------------------------|---|
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
|----------|-------------------------------------------|---|

| | | |
|----------|-----------------------------|---|
| PSYC 101 | General Psychology *Active* | 3 |
|----------|-----------------------------|---|

| | | |
|----------|----------------------------------------|---|
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
|----------|----------------------------------------|---|

| | | |
|----------|----------------------------------|---|
| SOCO 101 | Principles of Sociology *Active* | 3 |
|----------|----------------------------------|---|

| | | |
|-------------|--|----|
| Total Units | | 18 |
|-------------|--|----|

DATES & CODES

CIC Approval:

Board Approval:

TOP Code: 0401.00

State Approval:

State Approval (Unique) Code: 18173

Subject Area: Biology
Program Area: Biology

Report Run: 02/24/2023 12:33 AM
Program ID: 4342

Previous Report

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:New Program

Proposal Originator:Duane Short

Origination Date:04/17/2008

Proposed Start:Fall 2008

Need for Proposal:

To replace noncompliant Transfer Studies degree.

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Current Report

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Andrew Lowe

Origination Date:01/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Edit restricted elective course list to include 141A and 141B

Attached Documents:

[CCCCO Narrative Biology AS](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|----------------------------------------------------|-------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |

SELECT 4 TO 9 UNITS FROM THE FOLLOWING:

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING:

| | | |
|-----------|------------------------------------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
| ACCT 116B | Managerial Accounting *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| CISC 190 | Java Programming *Active* | 4 |
| CISC 192 | C/C++ Programming *Active* | 4 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
| PSYC 101 | General Psychology *Active* | 3 |
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| SOCO 101 | Principles of Sociology *Active* | 3 |

Total Units 18

DATES & CODES

CIC Approval: 03/13/2008

Board Approval: 04/17/2008

State Approval: 06/06/2008

TOP Code: 0401.00

State Approval (Unique) Code: 18173

Subject Area: Biology

Program Area: Biology

Report Run: 02/24/2023 12:33 AM

Program ID: 1886

requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|----------------------------------------------------|-------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |

SELECT 4 TO 9 UNITS FROM THE FOLLOWING:

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING:

| | | |
|-----------|------------------------------------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
| ACCT 116B | Managerial Accounting *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| CISC 190 | Java Programming *Active* | 4 |
| CISC 192 | C/C++ Programming *Active* | 4 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
| PSYC 101 | General Psychology *Active* | 3 |
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| SOCO 101 | Principles of Sociology *Active* | 3 |

Total Units 18

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 18173

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jae Calanog

Origination Date:05/17/2022

Proposed Start:Fall 2024

Need for Proposal:

Replace MATH 104 / 141 with MATH 141A/B

Attached Documents:

[Articulation documentation](#)

[CCCCO proposal narrative-d3](#)

[LMI Analysis_COE](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES: | | UNITS |
|------------------------------------------------------------------------------|-------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

| | | |
|-----------|--------------------------------------------|---|
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

| | |
|----------------------------------------------------------------------------------------------|---------------------|
| <u>SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:</u> | <u>UNITS</u> |
|----------------------------------------------------------------------------------------------|---------------------|

| | | |
|----------|---------------------------------------------------|---|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

| | |
|---------------------------------------------------------------------------------------|---------------------|
| <u>SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:</u> | <u>UNITS</u> |
|---------------------------------------------------------------------------------------|---------------------|

| | | |
|-------------|-------------------------------------------------|---|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|---------|
| Total Units | 18 - 21 |
|-------------|---------|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4390

Previous Report

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Gina Bochicchio

Origination Date:12/15/2019

Proposed Start:Fall 2021

Need for Proposal:

Remove MATH 115 and PHYN 101 which are being deactivated at Miramar; add PHYN 114 to restricted electives.

Attached Documents:

[CCCCO proposal narrative](#)
[Articulation documentation](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES:

| | | UNITS |
|----------|--------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |

Current Report

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jae Calanog

Origination Date:05/17/2022

Proposed Start:Fall 2024

Need for Proposal:

Replace MATH 104 / 141 with MATH 141A/B

Attached Documents:

[Articulation documentation](#)
[CCCCO proposal narrative-d3](#)
[LMI Analysis_COE](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES:

| | | UNITS |
|----------|--------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |

| | | |
|-----------|-------------------------------------------------------|---|
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:

| | | |
|----------|---------------------------------------------------|---|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:

| | | |
|-------------|-------------------------------------------------|---|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 18 - 21

DATES & CODES

CIC Approval: 12/10/2020

Board Approval: 01/28/2021

State Approval: 03/29/2021

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 4096

| | | |
|-----------|-------------------------------------------------------|---|
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:

| | | |
|----------|---------------------------------------------------|---|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:

| | | |
|-------------|-------------------------------------------------|---|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 18 - 21

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 4390

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin McConnell

Origination

Date:01/13/2023

Proposed Start:Fall 2024

Need for Proposal:

Remove BIOL 110 from recommended electives. Rearranged existing language in appropriate CurricUNET fields - no language has changed, but it now matches the catalog.

Attached Documents:

[Articulation Agreement UC,Davis](#)

[Narrative_FA2024_2023-01-17](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Common university majors related to the field of Biology include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Botany and Plant Sciences, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Exercise Science, Genetics, Kinesiology, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Nursing, Nutrition and Food Science, Psychobiology, Toxicology, Zoology and Animal Science.

Course Requirements for Transfer Students: Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The primary goal of the Biology Program is to communicate the current state of knowledge and technology to members of the community so that they may better understand how various aspects of the life sciences impact their lives, as well as local and global communities. Program objectives are to foster the scientific curiosity of students and to prepare students to achieve academic and professional success.

Academic Programs

The three associate degrees in biology require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The Associate Degree requires a minimum of 60 units.

Program Emphasis:

The Biology Program serves three areas of study. First, the program curriculum provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the program offers courses in human anatomy, human physiology, and general microbiology which may be used to satisfy prerequisites for nursing and other allied health programs. Third, the program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few require an associate degree, most require a baccalaureate degree, and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, biomedical scientist, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|-----------------------------------------------------|----------------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| Total Units | | 23 - 24 |

| RECOMMENDED ELECTIVES: | | UNITS |
|-------------------------------|-----------------------------------------------------------|--------------|
| BIOL 101 | Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 232 | Experience in Human Dissection *Active* | 1 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 290 | Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Previous Report

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin Rempala

**Origination
Date:**10/02/2015

Proposed Start:Fall 2020

Need for Proposal:

Remove BIOL 200, BIOL 100, BIOL 215, BIOL 250, and BIOL 296 from recommended electives. Update the title of degree.

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

Bring program up to date regarding industry trends.

Current Report

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin McConnell

**Origination
Date:**01/13/2023

Proposed Start:Fall 2024

Need for Proposal:

Remove BIOL 110 from recommended electives. Rearranged existing language in appropriate CurricUNET fields - no language has changed, but it now matches the catalog.

Attached Documents:

[Articulation Agreement UC Davis](#)
[Narrative_FA2024_2023-01-17](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Common university majors related to the field of Biology include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Botany and Plant Sciences, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Exercise Science, Genetics, Kinesiology, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Nursing, Nutrition and Food Science, Psychobiology, Toxicology, Zoology and Animal Science.

Course Requirements for Transfer Students: Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The primary goal of the Biology Program is to communicate the current state of knowledge and technology to members of the community so that they may better understand how various aspects of the life sciences impact their lives, as well as local and global communities. Program objectives are to foster the scientific curiosity of students and to

Program Emphasis:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology curriculum provides preparation for entry level employment as a biotechnology technician. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require an associate degree; most require a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

COURSES REQUIRED FOR THE MAJOR:

| | UNITS |
|---------------------------------------------------------------|-------|
| BIOL 210A Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 Calculus with Analytic Geometry I *Active* | 5 |

Total Units 23 - 24

RECOMMENDED ELECTIVES:

| | UNITS |
|--------------------------------------------------------------------|-------|
| BIOL 101 Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 110 Introduction to Oceanography *Active* | 3 |
| BIOL 130 Human Heredity *Active* | 3 |
| BIOL 180 Plants and People *Active* | 3 |
| BIOL 205 General Microbiology *Active* | 5 |
| BIOL 230 Human Anatomy *Active* | 4 |
| BIOL 232 Experience in Human Dissection *Active* | 1 |
| BIOL 235 Human Physiology *Active* | 4 |
| BIOL 290 Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval: 02/25/2016

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Subject Area: Biology

Program Area: Biology

Report Run: 02/24/2023 12:33 AM

Program ID: 3191

prepare students to achieve academic and professional success.

Academic Programs

The three associate degrees in biology require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The Associate Degree requires a minimum of 60 units.

Program Emphasis:

The Biology Program serves three areas of study. First, the program curriculum provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the program offers courses in human anatomy, human physiology, and general microbiology which may be used to satisfy prerequisites for nursing and other allied health programs. Third, the program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few require an associate degree, most require a baccalaureate degree, and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, biomedical scientist, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

COURSES REQUIRED FOR THE MAJOR:

| | UNITS |
|---------------------------------------------------------------|-------|
| BIOL 210A Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 Calculus with Analytic Geometry I *Active* | 5 |

Total Units 23 - 24

RECOMMENDED ELECTIVES:

| | UNITS |
|--------------------------------------------------------------------|-------|
| BIOL 101 Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 130 Human Heredity *Active* | 3 |
| BIOL 180 Plants and People *Active* | 3 |
| BIOL 205 General Microbiology *Active* | 5 |
| BIOL 230 Human Anatomy *Active* | 4 |
| BIOL 232 Experience in Human Dissection *Active* | 1 |
| BIOL 235 Human Physiology *Active* | 4 |
| BIOL 290 Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Subject Area: Biology

Report Run: 02/24/2023 12:33 AM

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:09/26/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to reflect 1) removal of MUSI 205A & MUSI 205B, and
2) addition of MUSI 206C & MUSI 206D.

Attached Documents:

[Assist CA Music Composition](#)

[CA Music Composition Narrative](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|----------------------------------------|-------|
| MUSI 123A | Recital Hour I *Active* | 0.5 |
| MUSI 123B | Recital Hour II *Active* | 0.5 |
| MUSI 124A | Piano Class I *Active* | 1 |
| MUSI 124B | Piano Class II *Active* | 1 |
| MUSI 148A | Music Theory I *Active* | 3 |
| MUSI 148B | Music Theory II *Active* | 3 |
| MUSI 206A | Projects in Composition I *Active* | 3 |
| MUSI 206B | Projects in Composition II *Active* | 3 |
| MUSI 206C | Projects in Composition III *Launched* | 3 |
| MUSI 206D | Projects in Composition IV *Launched* | 3 |
| MUSI 268A | Ear Training I *Active* | 1 |
| MUSI 268B | Ear Training II *Active* | 1 |

Total Units

23

DATES & CODES

CIC Approval:
Board Approval:
State Approval:

TOP Code: 1004.00
State Approval (Unique) Code: 38960

Subject Area: Music
Program Area: Music

Report Run: 02/24/2023 12:33 AM
Program ID: 4458

Previous Report

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:02/03/2020

Proposed Start:Fall 2021

Need for Proposal:

Program revision to reflect course renumbering (MUSI 116A/B to 124A/B; MUSI 158A/B to MUSI 148A/B) with change from 27 to 23 units.

Attached Documents:

[CA Music Composition Assist](#)

[CA Music Composition](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Award Notes:

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|---------------------------------------|--|-------|
| MUSI 123A | Recital Hour I *Active* | | 0.5 |
| MUSI 123B | Recital Hour II *Active* | | 0.5 |
| MUSI 124A | Piano Class I *Active* | | 1 |
| MUSI 124B | Piano Class II *Active* | | 1 |
| MUSI 148A | Music Theory I *Active* | | 3 |
| MUSI 148B | Music Theory II *Active* | | 3 |
| MUSI 205A | Audio Production Projects I *Active* | | 3 |
| MUSI 205B | Audio Production Projects II *Active* | | 3 |
| MUSI 206A | Projects in Composition I *Active* | | 3 |
| MUSI 206B | Projects in Composition II *Active* | | 3 |
| MUSI 268A | Ear Training I *Active* | | 1 |
| MUSI 268B | Ear Training II *Active* | | 1 |

Current Report

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:09/26/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to reflect 1) removal of MUSI 205A & MUSI 205B, and 2) addition of MUSI 206C & MUSI 206D.

Attached Documents:

[Assist CA Music Composition](#)

[CA Music Composition Narrative](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Award Notes:

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|----------------------------------------|--|-------|
| MUSI 123A | Recital Hour I *Active* | | 0.5 |
| MUSI 123B | Recital Hour II *Active* | | 0.5 |
| MUSI 124A | Piano Class I *Active* | | 1 |
| MUSI 124B | Piano Class II *Active* | | 1 |
| MUSI 148A | Music Theory I *Active* | | 3 |
| MUSI 148B | Music Theory II *Active* | | 3 |
| MUSI 206A | Projects in Composition I *Active* | | 3 |
| MUSI 206B | Projects in Composition II *Active* | | 3 |
| MUSI 206C | Projects in Composition III *Launched* | | 3 |
| MUSI 206D | Projects in Composition IV *Launched* | | 3 |
| MUSI 268A | Ear Training I *Active* | | 1 |
| MUSI 268B | Ear Training II *Active* | | 1 |

| DATES & CODES | | DATES & CODES | |
|----------------------------|-------------------------------------|---------------------|-------------------------------------|
| CIC Approval: 11/12/2020 | | CIC Approval: | |
| Board Approval: 12/17/2020 | TOP Code: 1004.00 | Board Approval: | TOP Code: 1004.00 |
| State Approval: 02/03/2021 | State Approval (Unique) Code: 38960 | State Approval: | State Approval (Unique) Code: 38960 |
| Subject Area: Music | Report Run: 02/24/2023 12:33 AM | Subject Area: Music | Report Run: 02/24/2023 12:33 AM |
| Program Area: Music | Program ID: 4110 | Program Area: Music | Program ID: 4458 |

CITY - OFFICE ADMINISTRATIVE ASSISTANT - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

Origination

Date:08/30/2022

Proposed Start:Fall 2024

Need for Proposal:

Revise program title, previously titled Business Information Worker II.
Revise program description. Revise program career options. Revise award description. Remove from courses required for the major: CBTE 127, CBTE 152, CBTE 205, CBTE 206. Add to courses required for the major: BUSE 101, BUSE 119, CBTE 140 as an or to CBTE 143, CBTE 164, CBTE 180. Revise total units to 18-19 units from 16 units.

Attached Documents:

[Archive COCI Approval Letter_01-06-2021](#)

[Archive_Regional Consortium_12-2016](#)

[COE LMI 09-19-2022](#)

[COE LMI 03-29-2021](#)

[COE LMI 04-2019](#)

[COE LMI 05-2021](#)

[LMI SOC43-4011](#)

[LMI SOC43-4199](#)

[LMI SOC43-5061](#)

[LMI SOC43-6014](#)

[LMI SOC43-5081](#)

[Narrative_FA2024_2022-12-02](#)

[Regional Consortium Recommendation_11-18-2022](#)

[Regional Consortium Minutes_11-18-2022](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Office Administration Assistant Certificate of Achievement is designed to prepare students for entry-level office and administrative support in a variety of fields or businesses. The goal of the Office Administration Assistant Certificate of Achievement is to prepare students for entry-level office and administrative support in the following areas: Basic oral and written business communications; basic computer application skills, including beginning Excel and Outlook; the fundamentals of computer systems; and critical thinking and problem solving. This certificate allows students desiring office skills to select courses that best serve their particular interests and meet the ever-changing demands and requirements of the job market.

Award Notes:

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

Program Description:

The Computer Business Technology program offers hands-on training in Microsoft Office applications. Skills learned in this program can be applied to any career field. Emphasis is placed on enhancing computer skills for college success and/or employment in entry-level

business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

Examples of careers in computer business technology include: brokerage clerk, information and record clerk, general office clerk, order clerk, receptionist, entry-level administrative assistant, administrative clerk, cashier receptionist, clerical technician, customer service rep, mortgage receptionist, etc.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|----------------------------------------------|--------------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 101 | Business Mathematics *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| BUSE 119 | Business Communications *Active* | 3 |
| CBTE 140 | Beginning Microsoft Excel *Active* | 2 |
| or CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 164 | Introduction to Microsoft Outlook *Approved* | 1 |
| CBTE 180 | Microsoft Office *Active* | 3 |

| | |
|-------------|---------|
| Total Units | 18 - 19 |
|-------------|---------|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0702.10

State Approval (Unique) Code: 36567

Subject Area: Computer Business
Technology

Report Run: 02/24/2023 12:33 AM

Program Area: Computer Business
Technology

Program ID: 4423

Previous Report

CITY - BUSINESS INFORMATION WORKER II - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

**Origination
Date:**10/18/2019

Proposed Start:Fall 2021

Need for Proposal:

Remove CBTE 155 from courses required for the major. Revise program and award description.

Attached Documents:

[Narrative \(10.21.19\)](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Business Information Worker II Certificate of Achievement is designed to provide students with the intermediate-level office skills that can facilitate advancement from entry-level to higher-level office and administrative support positions. Emphasis is placed on preparing students for advancement in general office environments in a variety of fields.

Award Notes:

Program Description:

The Computer Business Technology program offers certificates and degrees in entry-level positions. Skills learned in this program can be applied to any career field. Business Information Worker programs are offered for both transfer and career-oriented students. Emphasis is placed on upgrading computer skills for college success and/or employment in business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

The Business Information Worker II Certificate of Achievement is designed to provide students with the intermediate-level office skills that can facilitate advancement from entry-level to higher-level office and administrative support positions. Emphasis is placed on preparing students for advancement in general office environments in a variety of fields.

Current Report

CITY - OFFICE ADMINISTRATIVE ASSISTANT - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

**Origination
Date:**08/30/2022

Proposed Start:Fall 2024

Need for Proposal:

Revise program title, previously titled Business Information Worker II. Revise program description. Revise program career options. Revise award description. Remove from courses required for the major: CBTE 127, CBTE 152, CBTE 205, CBTE 206. Add to courses required for the major: BUSE 101, BUSE 119, CBTE 140 as an or to CBTE 143, CBTE 164, CBTE 180. Revise total units to 18-19 units from 16 units.

Attached Documents:

[Archive COCI Approval Letter_01-06-2021](#)

[Archive_Regional Consortium_12-2016](#)

[COE LMI 09-19-2022](#)

[COE LMI 03-29-2021](#)

[COE LMI 04-2019](#)

[COE LMI 05-2021](#)

[LMI SOC43-4011](#)

[LMI SOC43-4199](#)

[LMI SOC43-5061](#)

[LMI SOC43-6014](#)

[LMI SOC43-5081](#)

[Narrative_FA2024_2022-12-02](#)

[Regional Consortium Recommendation_11-18-2022](#)

[Regional Consortium Minutes_11-18-2022](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Office Administration Assistant Certificate of Achievement is designed to prepare students for entry-level office and administrative support in a variety of fields or businesses. The goal of the Office Administration Assistant Certificate of Achievement is to prepare students for entry-level office and administrative support in the following areas: Basic oral and written business communications; basic computer application skills, including beginning Excel and Outlook; the fundamentals of computer systems; and critical thinking and problem solving. This certificate allows students desiring office skills to select courses that best serve their particular interests and meet the ever-changing demands and requirements of the job market.

Award Notes:

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

Program Description:

The Computer Business Technology program offers hands-on training in Microsoft Office

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

COURSES REQUIRED FOR THE MAJOR:

| | | UNITS |
|-------------|-------------------------------------------|-------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| CBTE 127 | Beginning Microsoft PowerPoint *Active* | 2 |
| CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 152 | Beginning Microsoft Access *Active* | 2 |
| CBTE 205 | Records Management *Active* | 3 |
| or CBTE 206 | Electronic Records Management *Active* | 3 |

Total Units 16

DATES & CODES

CIC Approval: 03/26/2020

Board Approval: 05/14/2020

State Approval: 01/06/2021

TOP Code: 0702.10

State Approval (Unique) Code: 36567

Subject Area: Computer Business
Technology

Report Run: 02/24/2023 12:33 AM

Program Area: Computer Business
Technology

Program ID: 4037

applications. Skills learned in this program can be applied to any career field. Emphasis is placed on enhancing computer skills for college success and/or employment in entry-level business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

Examples of careers in computer business technology include: brokerage clerk, information and record clerk, general office clerk, order clerk, receptionist, entry-level administrative assistant, administrative clerk, cashier receptionist, clerical technician, customer service rep, mortgage receptionist, etc.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

COURSES REQUIRED FOR THE MAJOR:

| | | UNITS |
|-------------|----------------------------------------------|-------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 101 | Business Mathematics *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| BUSE 119 | Business Communications *Active* | 3 |
| CBTE 140 | Beginning Microsoft Excel *Active* | 2 |
| or CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 164 | Introduction to Microsoft Outlook *Approved* | 1 |
| CBTE 180 | Microsoft Office *Active* | 3 |

Total Units 18 - 19

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0702.10

State Approval (Unique) Code: 36567

Subject Area: Computer Business
Technology

Report Run: 02/24/2023 12:33 AM

Program Area: Computer Business
Technology

Program ID: 4423

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jennifer Snyder

Origination

Date:09/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to: 1) remove MATH 104 & MATH 141 (being deactivated), 2) add MATH 141A & MATH 141B, and 3) PSYC 258 as option to MATH 119. No unit change.

Attached Documents:

[PHYN AS Narrative 2-2023](#)

[ASSIST - SDSU Geology](#)

[ASSIST - SDSU Astronomy](#)

[ASSIST - SDSU Chemistry](#)

[ASSIST - SDSU Physics](#)

[ASSIST - SDSU Math](#)

PROGRAM & AWARD INFORMATION

Award Description:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|----------------------------------------------------------------------|--------------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| AT LEAST 3 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|----------------------------------------|--------------|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|-------------------------------------------|--------------|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|----------------------------------------------|--------------|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4454

Previous Report

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

Origination Date:02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, & PHYR 114; 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107); and 3) remove Recommended Electives.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

| | | UNITS |
|----------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

| | | UNITS |
|----------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

| | | UNITS |
|--|--|-------|
|--|--|-------|

Current Report

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jennifer Snyder

Origination Date:09/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to: 1) remove MATH 104 & MATH 141 (being deactivated), 2) add MATH 141A & MATH 141B, and 3) PSYC 258 as option to MATH 119. No unit change.

Attached Documents:

[PHYN AS Narrative 2-2023](#)

[ASSIST - SDSU Geology](#)

[ASSIST - SDSU Astronomy](#)

[ASSIST - SDSU Chemistry](#)

[ASSIST - SDSU Physics](#)

[ASSIST - SDSU Math](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

| | | UNITS |
|----------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

| | | UNITS |
|----------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |

| | | |
|-----------|----------------------------------------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

AT LEAST 3 UNITS FROM THE FOLLOWING: UNITS

| | | |
|-----------|----------------------------------------|---|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|----------|-------------------------------------------|---|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|----------|----------------------------------------------|---|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 35

DATES & CODES

CIC Approval: 04/26/2018

Board Approval: 06/07/2018

State Approval: 01/07/2019

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 3618

| | | |
|----------|--------------------------------------------|---|
| GEOL 120 | Earth Science Laboratory *Active* | 1 |
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|-----------|----------------------------------------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

AT LEAST 3 UNITS FROM THE FOLLOWING: UNITS

| | | |
|-----------|----------------------------------------|---|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|----------|-------------------------------------------|---|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|-------------|----------------------------------------------|---|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 35

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 4454

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Deactivation

Proposal Originator:Jennifer Snyder

Origination

Date:12/14/2022

Proposed Start:Fall 2024

Need for Proposal:

Deactivation proposal for PHYN CA due to low completion numbers.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|-------------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|--------------|----------------------------------------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or CHEM 152 | Introduction to General Chemistry *Active* | 3 |

| | | | |
|----|-----------|-------------------------------------------------------|---|
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| | |
|---------------------------------------------|--------------|
| AT LEAST 3 UNITS FROM THE FOLLOWING: | UNITS |
|---------------------------------------------|--------------|

| | | | |
|----|-----------|----------------------------------------|---|
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| | |
|---------------------------------------------|--------------|
| AT LEAST 8 UNITS FROM THE FOLLOWING: | UNITS |
|---------------------------------------------|--------------|

| | | | |
|----|----------|-------------------------------------------|---|
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| | |
|------------------------------------------------------|--------------|
| AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: | UNITS |
|------------------------------------------------------|--------------|

| | | | |
|----|----------|----------------------------------------------|---|
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4491

Previous Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

**Origination
Date:**02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, and 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107).

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

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Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

| | | UNITS |
|----------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

| | | UNITS |
|-------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

UNITS

Current Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Deactivation

Proposal Originator:Jennifer Snyder

**Origination
Date:**12/14/2022

Proposed Start:Fall 2024

Need for Proposal:

Deactivation proposal for PHYN CA due to low completion numbers.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

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Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

| | | UNITS |
|----------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

| | | UNITS |
|-------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|--------------|----------------------------------------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

AT LEAST 3 UNITS FROM THE FOLLOWING: UNITS

| | | |
|--------------|----------------------------------------|---|
| GEOG 101 | Physical Geography *Active* | 3 |
| or GEOG 101L | Physical Geography Laboratory *Active* | 1 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|-------------|-------------------------------------------|---|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| or PHYS 125 | General Physics *Active* | 5 |
| or PHYS 126 | General Physics II *Active* | 5 |
| or PHYS 195 | Mechanics *Active* | 5 |
| or PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: UNITS

| | | |
|-------------|----------------------------------------------|---|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or MATH 104 | Trigonometry *Active* | 3 |
| or MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or MATH 141 | Precalculus *Active* | 5 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 35

| | | |
|--------------|----------------------------------------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

AT LEAST 3 UNITS FROM THE FOLLOWING: UNITS

| | | |
|--------------|----------------------------------------|---|
| GEOG 101 | Physical Geography *Active* | 3 |
| or GEOG 101L | Physical Geography Laboratory *Active* | 1 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | |
|-------------|-------------------------------------------|---|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| or PHYS 125 | General Physics *Active* | 5 |
| or PHYS 126 | General Physics II *Active* | 5 |
| or PHYS 195 | Mechanics *Active* | 5 |
| or PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: UNITS

| | | |
|-------------|----------------------------------------------|---|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or MATH 104 | Trigonometry *Active* | 3 |
| or MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or MATH 141 | Precalculus *Active* | 5 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 35

DATES & CODES

CIC Approval: 04/26/2018

Board Approval: 06/07/2018

State Approval: 01/07/2019

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 3617

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 4491

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Andrew Lowe

Origination Date:01/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Edit restricted elective course list to include 141A and 141B

Attached Documents:

[CCCCO Narrative Biology AS](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|--|--------------|
|----------------------------------------|--|--------------|

| | | |
|-----------|----------------------------------------------------|---|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
|-----------|----------------------------------------------------|---|

| SELECT 4 TO 9 UNITS FROM THE FOLLOWING: | | UNITS |
|------------------------------------------------|--|--------------|
|------------------------------------------------|--|--------------|

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
|-----------|-----------------------------------------------------|---|

| | | |
|----------|----------------------------------------|---|
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
|----------|----------------------------------------|---|

| | | |
|-----------|-------------------------------------------|---|
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
|-----------|-------------------------------------------|---|

| SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------------------|--|--------------|
|---------------------------------------------------------|--|--------------|

| | | |
|-----------|-------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
|-----------|-------------------------------|---|

| | | |
|-----------|--------------------------------|---|
| ACCT 116B | Managerial Accounting *Active* | 4 |
|-----------|--------------------------------|---|

| | | |
|----------|-------------------------|---|
| BIOL 115 | Marine Biology *Active* | 4 |
|----------|-------------------------|---|

| | | |
|----------|-------------------------------|---|
| BIOL 205 | General Microbiology *Active* | 5 |
|----------|-------------------------------|---|

| | | |
|----------|------------------------------------------------------------|---|
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
|----------|------------------------------------------------------------|---|

| | | |
|----------|------------------------|---|
| BIOL 230 | Human Anatomy *Active* | 4 |
|----------|------------------------|---|

| | | |
|----------|---------------------------|---|
| BIOL 235 | Human Physiology *Active* | 4 |
|----------|---------------------------|---|

| | | |
|----------|-----------------------------------------------------------|---|
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
|----------|-----------------------------------------------------------|---|

| | | |
|----------|-----------------------------------------|---|
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
|----------|-----------------------------------------|---|

| | | |
|-----------|--------------------------------------------|---|
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
|-----------|--------------------------------------------|---|

| | | |
|----------|---------------------------|---|
| CISC 190 | Java Programming *Active* | 4 |
|----------|---------------------------|---|

| | | |
|----------|----------------------------|---|
| CISC 192 | C/C++ Programming *Active* | 4 |
|----------|----------------------------|---|

| | | |
|----------|-------------------------------------|---|
| MATH 116 | College and Matrix Algebra *Active* | 3 |
|----------|-------------------------------------|---|

| | | |
|----------|--------------------------------|---|
| MATH 119 | Elementary Statistics *Active* | 3 |
|----------|--------------------------------|---|

| | | |
|----------|-------------------------------------------------|---|
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
|----------|-------------------------------------------------|---|

| | | |
|----------|------------------------------------------|---|
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
|----------|------------------------------------------|---|

| | | |
|-----------|--------------------------|---|
| MATH 141A | Precalculus I *Launched* | 4 |
|-----------|--------------------------|---|

| | | |
|-----------|---------------------------|---|
| MATH 141B | Precalculus II *Launched* | 4 |
|-----------|---------------------------|---|

| | | |
|----------|--------------------------------------------|---|
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
|----------|--------------------------------------------|---|

| | | |
|----------|---------------------------------------------|---|
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
|----------|---------------------------------------------|---|

| | | |
|----------|--------------------------|---|
| PHYS 125 | General Physics *Active* | 5 |
|----------|--------------------------|---|

| | | |
|----------|-----------------------------|---|
| PHYS 126 | General Physics II *Active* | 5 |
|----------|-----------------------------|---|

| | | |
|----------|--------------------|---|
| PHYS 195 | Mechanics *Active* | 5 |
|----------|--------------------|---|

| | | |
|----------|------------------------------------|---|
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
|----------|------------------------------------|---|

| | | |
|----------|-------------------------------------------|---|
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
|----------|-------------------------------------------|---|

| | | |
|----------|-----------------------------|---|
| PSYC 101 | General Psychology *Active* | 3 |
|----------|-----------------------------|---|

| | | |
|----------|----------------------------------------|---|
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
|----------|----------------------------------------|---|

| | | |
|----------|----------------------------------|---|
| SOCO 101 | Principles of Sociology *Active* | 3 |
|----------|----------------------------------|---|

| | | |
|-------------|--|----|
| Total Units | | 18 |
|-------------|--|----|

DATES & CODES

CIC Approval:

Board Approval:

TOP Code: 0401.00

State Approval:

State Approval (Unique) Code: 18173

Subject Area: Biology
Program Area: Biology

Report Run: 02/24/2023 12:33 AM
Program ID: 4342

Previous Report

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:New Program

Proposal Originator:Duane Short

Origination Date:04/17/2008

Proposed Start:Fall 2008

Need for Proposal:

To replace noncompliant Transfer Studies degree.

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Career Options:

Current Report

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Andrew Lowe

Origination Date:01/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Edit restricted elective course list to include 141A and 141B

Attached Documents:

[CCCCO Narrative Biology AS](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|----------------------------------------------------|--------------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |

SELECT 4 TO 9 UNITS FROM THE FOLLOWING:

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING:

| | | |
|-----------|------------------------------------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
| ACCT 116B | Managerial Accounting *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| CISC 190 | Java Programming *Active* | 4 |
| CISC 192 | C/C++ Programming *Active* | 4 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
| PSYC 101 | General Psychology *Active* | 3 |
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| SOCO 101 | Principles of Sociology *Active* | 3 |

Total Units 18

DATES & CODES

CIC Approval: 03/13/2008

Board Approval: 04/17/2008

State Approval: 06/06/2008

TOP Code: 0401.00

State Approval (Unique) Code: 18173

Subject Area: Biology

Program Area: Biology

Report Run: 02/24/2023 12:33 AM

Program ID: 1886

requires a minimum of 60 units.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|----------------------------------------------------|--------------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |

SELECT 4 TO 9 UNITS FROM THE FOLLOWING:

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING:

| | | |
|-----------|------------------------------------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
| ACCT 116B | Managerial Accounting *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| CISC 190 | Java Programming *Active* | 4 |
| CISC 192 | C/C++ Programming *Active* | 4 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
| PSYC 101 | General Psychology *Active* | 3 |
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| SOCO 101 | Principles of Sociology *Active* | 3 |

Total Units 18

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 18173

Subject Area: Biology

Report Run: 02/24/2023 12:33 AM

Previous Report

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:New Program

Proposal Originator:Duane Short

Origination Date:04/17/2008

Proposed Start:Fall 2008

Need for Proposal:

To replace noncompliant Transfer Studies degree.

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology Associate Degree curriculum provides preparation for entry level employment as a technician in the life sciences industry. In addition to the associate degree programs, certificates in Applied Biotechnology with emphasis in either Molecular Biology or Analytical Chemistry are offered. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Program Emphasis:

The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Career Options:

Current Report

MIRAMAR - BIOLOGY STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Andrew Lowe

Origination Date:01/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Edit restricted elective course list to include 141A and 141B

Attached Documents:

[CCCCO Narrative Biology AS](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Biology Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a biology-related major. Common university majors in this field include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology / Animal Sciences. This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

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Program Emphasis:

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Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|----------------------------------------------------|--------------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |

SELECT 4 TO 9 UNITS FROM THE FOLLOWING:

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING:

| | | |
|-----------|------------------------------------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
| ACCT 116B | Managerial Accounting *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| CISC 190 | Java Programming *Active* | 4 |
| CISC 192 | C/C++ Programming *Active* | 4 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
| PSYC 101 | General Psychology *Active* | 3 |
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| SOCO 101 | Principles of Sociology *Active* | 3 |

Total Units 18

DATES & CODES

CIC Approval: 03/13/2008

Board Approval: 04/17/2008

State Approval: 06/06/2008

TOP Code: 0401.00

State Approval (Unique) Code: 18173

Subject Area: Biology

Program Area: Biology

Report Run: 02/24/2023 12:33 AM

Program ID: 1886

requires a minimum of 60 units.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist, lab assistant, and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Course Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|----------------------------------------------------|--------------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |

SELECT 4 TO 9 UNITS FROM THE FOLLOWING:

| | | |
|-----------|-----------------------------------------------------|---|
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

SELECT 5 TO 10 OR MORE UNITS FROM THE FOLLOWING:

| | | |
|-----------|------------------------------------------------------------|---|
| ACCT 116A | Financial Accounting *Active* | 4 |
| ACCT 116B | Managerial Accounting *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 215 | Introduction to Zoology *Active* ~Only available at: Mesa~ | 4 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 250 | Introduction to Botany *Active* ~Only available at: Mesa~ | 4 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| CISC 190 | Java Programming *Active* | 4 |
| CISC 192 | C/C++ Programming *Active* | 4 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |
| PSYC 101 | General Psychology *Active* | 3 |
| PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| SOCO 101 | Principles of Sociology *Active* | 3 |

Total Units 18

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 18173

Subject Area: Biology

Report Run: 02/24/2023 12:33 AM

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jae Calanog

Origination Date:05/17/2022

Proposed Start:Fall 2024

Need for Proposal:

Replace MATH 104 / 141 with MATH 141A/B

Attached Documents:

[Articulation documentation](#)

[CCCCO proposal narrative-d3](#)

[LMI Analysis_COE](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES: | | UNITS |
|------------------------------------------------------------------------------|-------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

| | | |
|-----------|--------------------------------------------|---|
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

| SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES: | UNITS |
|---------------------------------------------------------------------------------------|--------------|
|---------------------------------------------------------------------------------------|--------------|

| | | |
|----------|---------------------------------------------------|---|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

| SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES: | UNITS |
|--------------------------------------------------------------------------------|--------------|
|--------------------------------------------------------------------------------|--------------|

| | | |
|-------------|-------------------------------------------------|---|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|---------|
| Total Units | 18 - 21 |
|-------------|---------|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4390

Previous Report

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Gina Bochicchio

Origination Date:12/15/2019

Proposed Start:Fall 2021

Need for Proposal:

Remove MATH 115 and PHYN 101 which are being deactivated at Miramar; add PHYN 114 to restricted electives.

Attached Documents:

[CCCCO proposal narrative](#)

[Articulation documentation](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|--------------------------------------|--|-------|
| GEOL 100 | Physical Geology *Active* | | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | | 1 |

SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES:

| | | UNITS |
|----------|--------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |

Current Report

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jae Calanog

Origination Date:05/17/2022

Proposed Start:Fall 2024

Need for Proposal:

Replace MATH 104 / 141 with MATH 141A/B

Attached Documents:

[Articulation documentation](#)

[CCCCO proposal narrative-d3](#)

[LMI Analysis_COE](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|--------------------------------------|--|-------|
| GEOL 100 | Physical Geology *Active* | | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | | 1 |

SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES:

| | | UNITS |
|-----------|-------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |

| | | |
|-----------|-------------------------------------------------------|---|
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:

| | | |
|----------|---------------------------------------------------|---|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:

| | | |
|-------------|-------------------------------------------------|---|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 18 - 21

DATES & CODES

CIC Approval: 12/10/2020

Board Approval: 01/28/2021

State Approval: 03/29/2021

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4096

| | | |
|-----------|--------------------------------------------|---|
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:

| | | |
|----------|---------------------------------------------------|---|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:

| | | |
|-------------|-------------------------------------------------|---|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 18 - 21

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4390

Previous Report

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Gina Bochicchio

Origination Date:12/15/2019

Proposed Start:Fall 2021

Need for Proposal:

Remove MATH 115 and PHYN 101 which are being deactivated at Miramar; add PHYN 114 to restricted electives.

Attached Documents:

[CCCCO proposal narrative](#)

[Articulation documentation](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|--------------------------------------|--|-------|
| GEOL 100 | Physical Geology *Active* | | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | | 1 |

SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES:

| | | UNITS |
|----------|--------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |

Current Report

MIRAMAR - EARTH SCIENCE STUDIES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jae Calanog

Origination Date:05/17/2022

Proposed Start:Fall 2024

Need for Proposal:

Replace MATH 104 / 141 with MATH 141A/B

Attached Documents:

[Articulation documentation](#)

[CCCCO proposal narrative-d3](#)

[LMI Analysis_COE](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Associate of Science degree with an area of emphasis in Earth Science Studies is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical or earth science-related major. Common university majors in this field include: Earth Sciences, Environmental Sciences, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, and Physical Sciences.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a Miramar College counselor.

Award Notes:

Program Description:

N/A - this section is no longer updated via Curricunet.

Program Goals:

N/A - this section is no longer updated via Curricunet.

Program Emphasis:

N/A - this section is no longer updated via Curricunet.

Career Options:

N/A - this section is no longer updated via Curricunet.

Courses Required for the Major:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|--------------------------------------|--|-------|
| GEOL 100 | Physical Geology *Active* | | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | | 1 |

SELECT AT LEAST EIGHT (8) UNITS FROM THE FOLLOWING PHYSICAL SCIENCE COURSES:

| | | UNITS |
|-----------|-------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| AVIA 115 | Aviation Weather *Active* | 3 |
| CHEM 111 | Chemistry in Society *Active* | 3 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |

| | | |
|-----------|-------------------------------------------------------|---|
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:

| | | UNITS |
|----------|---------------------------------------------------|-------|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:

| | | UNITS |
|-------------|-------------------------------------------------|-------|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 18 - 21

DATES & CODES

CIC Approval: 12/10/2020

Board Approval: 01/28/2021

State Approval: 03/29/2021

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4096

| | | |
|-----------|--------------------------------------------|---|
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 111 | The Earth Through Time *Active* | 4 |
| OCEA 101 | The Oceans *Active* | 3 |
| PHYN 100 | Survey of Physical Science *Active* | 3 |
| PHYN 114 | Weather and Climate *Active* | 3 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 180A | General Physics I *Active* | 4 |
| PHYS 195 | Mechanics *Active* | 5 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING BIOLOGICAL SCIENCE COURSES:

| | | UNITS |
|----------|---------------------------------------------------|-------|
| ANTH 102 | Introduction to Biological Anthropology *Active* | 3 |
| ANTH 104 | Laboratory in Biological Anthropology *Active* | 1 |
| BIOL 100 | Natural History - Environmental Biology *Active* | 4 |
| BIOL 107 | General Biology-Lecture and Laboratory *Active* | 4 |
| BIOL 115 | Marine Biology *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| PSYC 260 | Introduction to Physiological Psychology *Active* | 3 |

SELECT AT LEAST THREE (3) UNITS FROM THE FOLLOWING MATHEMATICS COURSES:

| | | UNITS |
|-------------|-------------------------------------------------|-------|
| BUSE 115 | Statistics for Business *Active* | 3 |
| or MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 116 | College and Matrix Algebra *Active* | 3 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 18 - 21

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1930.00

State Approval (Unique) Code: 18176

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4390

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin McConnell

Origination

Date:01/13/2023

Proposed Start:Fall 2024

Need for Proposal:

Remove BIOL 110 from recommended electives. Rearranged existing language in appropriate CurricUNET fields - no language has changed, but it now matches the catalog.

Attached Documents:

[Articulation Agreement UC,Davis](#)

[Narrative_FA2024_2023-01-17](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Common university majors related to the field of Biology include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Botany and Plant Sciences, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Exercise Science, Genetics, Kinesiology, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Nursing, Nutrition and Food Science, Psychobiology, Toxicology, Zoology and Animal Science.

Course Requirements for Transfer Students: Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The primary goal of the Biology Program is to communicate the current state of knowledge and technology to members of the community so that they may better understand how various aspects of the life sciences impact their lives, as well as local and global communities. Program objectives are to foster the scientific curiosity of students and to prepare students to achieve academic and professional success.

Academic Programs

The three associate degrees in biology require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The Associate Degree requires a minimum of 60 units.

Program Emphasis:

The Biology Program serves three areas of study. First, the program curriculum provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the program offers courses in human anatomy, human physiology, and general microbiology which may be used to satisfy prerequisites for nursing and other allied health programs. Third, the program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few require an associate degree, most require a baccalaureate degree, and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, biomedical scientist, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|-----------------------------------------------------|----------------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| Total Units | | 23 - 24 |

| RECOMMENDED ELECTIVES: | | UNITS |
|-------------------------------|-----------------------------------------------------------|--------------|
| BIOL 101 | Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 232 | Experience in Human Dissection *Active* | 1 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 290 | Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Previous Report

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin Rempala

**Origination
Date:**10/02/2015

Proposed Start:Fall 2020

Need for Proposal:

Remove BIOL 200, BIOL 100, BIOL 215, BIOL 250, and BIOL 296 from recommended electives. Update the title of degree.

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

Bring program up to date regarding industry trends.

Program Emphasis:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology curriculum provides preparation for entry level employment as a biotechnology technician. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require an associate degree; most require a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|-----------------------------------------------------|-------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

Current Report

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin McConnell

**Origination
Date:**01/13/2023

Proposed Start:Fall 2024

Need for Proposal:

Remove BIOL 110 from recommended electives. Rearranged existing language in appropriate CurricUNET fields - no language has changed, but it now matches the catalog.

Attached Documents:

[Articulation Agreement UC.Davis](#)
[Narrative_FA2024_2023-01-17](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Common university majors related to the field of Biology include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Botany and Plant Sciences, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Exercise Science, Genetics, Kinesiology, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Nursing, Nutrition and Food Science, Psychobiology, Toxicology, Zoology and Animal Science.

Course Requirements for Transfer Students: Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The primary goal of the Biology Program is to communicate the current state of knowledge and technology to members of the community so that they may better understand how various aspects of the life sciences impact their lives, as well as local and global communities. Program objectives are to foster the scientific curiosity of students and to prepare students to achieve academic and professional success.

| | | |
|--------------|-------------------------------------------------|---|
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |

Total Units 23 - 24

| RECOMMENDED ELECTIVES: | | UNITS |
|------------------------|-----------------------------------------------------------|-------|
| BIOL 101 | Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 110 | Introduction to Oceanography *Active* | 3 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 232 | Experience in Human Dissection *Active* | 1 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 290 | Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval: 02/25/2016

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Subject Area: Biology
Program Area: Biology

Report Run: 02/24/2023 12:33 AM
Program ID: 3191

Academic Programs

The three associate degrees in biology require completion of the courses listed below.

Additional general education and graduation requirements for the associate degree are listed in the catalog. The Associate Degree requires a minimum of 60 units.

Program Emphasis:

The Biology Program serves three areas of study. First, the program curriculum provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the program offers courses in human anatomy, human physiology, and general microbiology which may be used to satisfy prerequisites for nursing and other allied health programs. Third, the program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few require an associate degree, most require a baccalaureate degree, and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, biomedical scientist, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|-----------------------------------------------------|-------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |

Total Units 23 - 24

| RECOMMENDED ELECTIVES: | | UNITS |
|------------------------|-----------------------------------------------------------|-------|
| BIOL 101 | Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 232 | Experience in Human Dissection *Active* | 1 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 290 | Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Subject Area: Biology
Program Area: Biology

Report Run: 02/24/2023 12:33 AM
Program ID: 4493

Previous Report

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin Rempala

**Origination
Date:**10/02/2015

Proposed Start:Fall 2020

Need for Proposal:

Remove BIOL 200, BIOL 100, BIOL 215, BIOL 250, and BIOL 296 from recommended electives. Update the title of degree.

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

Bring program up to date regarding industry trends.

Program Emphasis:

The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology curriculum provides preparation for entry level employment as a biotechnology technician. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Career Options:

The following list is a sample of the many career options available for the biology major. A few of these require an associate degree; most require a baccalaureate degree and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|-----------------------------------------------------|-------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |

Current Report

CITY - GENERAL BIOLOGY TRACK - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Erin McConnell

**Origination
Date:**01/13/2023

Proposed Start:Fall 2024

Need for Proposal:

Remove BIOL 110 from recommended electives. Rearranged existing language in appropriate CurricUNET fields - no language has changed, but it now matches the catalog.

Attached Documents:

[Articulation Agreement UC.Davis](#)

[Narrative_FA2024_2023-01-17](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Common university majors related to the field of Biology include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Botany and Plant Sciences, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Exercise Science, Genetics, Kinesiology, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Nursing, Nutrition and Food Science, Psychobiology, Toxicology, Zoology and Animal Science.

Course Requirements for Transfer Students: Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Program Description:

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Goals:

The primary goal of the Biology Program is to communicate the current state of knowledge and technology to members of the community so that they may better understand how various aspects of the life sciences impact their lives, as well as local and global communities. Program objectives are to foster the scientific curiosity of students and to prepare students to achieve academic and professional success.

| | | |
|--------------|-------------------------------------------------|---|
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |

Total Units 23 - 24

| RECOMMENDED ELECTIVES: | | UNITS |
|------------------------|-----------------------------------------------------------|-------|
| BIOL 101 | Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 110 | Introduction to Oceanography *Active* | 3 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 232 | Experience in Human Dissection *Active* | 1 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 290 | Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval: 02/25/2016

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Subject Area: Biology

Program Area: Biology

Report Run: 02/24/2023 12:33 AM

Program ID: 3191

Academic Programs

The three associate degrees in biology require completion of the courses listed below.

Additional general education and graduation requirements for the associate degree are listed in the catalog. The Associate Degree requires a minimum of 60 units.

Program Emphasis:

The Biology Program serves three areas of study. First, the program curriculum provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the program offers courses in human anatomy, human physiology, and general microbiology which may be used to satisfy prerequisites for nursing and other allied health programs. Third, the program provides courses in natural science to fulfill general education requirements.

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| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|-----------------------------------------------------|-------|
| BIOL 210A | Introduction to the Biological Sciences I *Active* | 4 |
| BIOL 210B | Introduction to the Biological Sciences II *Active* | 4 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |
| MATH 121 | Basic Techniques of Applied Calculus I *Active* | 3 |
| and MATH 122 | Basic Techniques of Calculus II *Active* | 3 |
| or MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |

Total Units 23 - 24

| RECOMMENDED ELECTIVES: | | UNITS |
|------------------------|-----------------------------------------------------------|-------|
| BIOL 101 | Issues in Environmental Science & Sustainability *Active* | 4 |
| BIOL 130 | Human Heredity *Active* | 3 |
| BIOL 180 | Plants and People *Active* | 3 |
| BIOL 205 | General Microbiology *Active* | 5 |
| BIOL 230 | Human Anatomy *Active* | 4 |
| BIOL 232 | Experience in Human Dissection *Active* | 1 |
| BIOL 235 | Human Physiology *Active* | 4 |
| BIOL 290 | Independent Study *Active* | 1 - 3 |

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0401.00

State Approval (Unique) Code: 05223

Subject Area: Biology

Program Area: Biology

Report Run: 02/24/2023 12:33 AM

Program ID: 4493

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:09/26/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to reflect 1) removal of MUSI 205A & MUSI 205B, and
2) addition of MUSI 206C & MUSI 206D.

Attached Documents:

[Assist CA Music Composition](#)

[CA Music Composition Narrative](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|----------------------------------------|-------|
| MUSI 123A | Recital Hour I *Active* | 0.5 |
| MUSI 123B | Recital Hour II *Active* | 0.5 |
| MUSI 124A | Piano Class I *Active* | 1 |
| MUSI 124B | Piano Class II *Active* | 1 |
| MUSI 148A | Music Theory I *Active* | 3 |
| MUSI 148B | Music Theory II *Active* | 3 |
| MUSI 206A | Projects in Composition I *Active* | 3 |
| MUSI 206B | Projects in Composition II *Active* | 3 |
| MUSI 206C | Projects in Composition III *Launched* | 3 |
| MUSI 206D | Projects in Composition IV *Launched* | 3 |
| MUSI 268A | Ear Training I *Active* | 1 |
| MUSI 268B | Ear Training II *Active* | 1 |

Total Units

23

DATES & CODES

CIC Approval:
Board Approval:
State Approval:

TOP Code: 1004.00
State Approval (Unique) Code: 38960

Subject Area: Music
Program Area: Music

Report Run: 02/24/2023 12:33 AM
Program ID: 4458

Previous Report

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:02/03/2020

Proposed Start:Fall 2021

Need for Proposal:

Program revision to reflect course renumbering (MUSI 116A/B to 124A/B; MUSI 158A/B to MUSI 148A/B) with change from 27 to 23 units.

Attached Documents:

[CA Music Composition Assist](#)

[CA Music Composition](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Award Notes:

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|---------------------------------------|--|-------|
| MUSI 123A | Recital Hour I *Active* | | 0.5 |
| MUSI 123B | Recital Hour II *Active* | | 0.5 |
| MUSI 124A | Piano Class I *Active* | | 1 |
| MUSI 124B | Piano Class II *Active* | | 1 |
| MUSI 148A | Music Theory I *Active* | | 3 |
| MUSI 148B | Music Theory II *Active* | | 3 |
| MUSI 205A | Audio Production Projects I *Active* | | 3 |
| MUSI 205B | Audio Production Projects II *Active* | | 3 |
| MUSI 206A | Projects in Composition I *Active* | | 3 |
| MUSI 206B | Projects in Composition II *Active* | | 3 |
| MUSI 268A | Ear Training I *Active* | | 1 |
| MUSI 268B | Ear Training II *Active* | | 1 |

Total Units

23

Current Report

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:09/26/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to reflect 1) removal of MUSI 205A & MUSI 205B, and 2) addition of MUSI 206C & MUSI 206D.

Attached Documents:

[Assist CA Music Composition](#)

[CA Music Composition Narrative](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Award Notes:

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|----------------------------------------|--|-------|
| MUSI 123A | Recital Hour I *Active* | | 0.5 |
| MUSI 123B | Recital Hour II *Active* | | 0.5 |
| MUSI 124A | Piano Class I *Active* | | 1 |
| MUSI 124B | Piano Class II *Active* | | 1 |
| MUSI 148A | Music Theory I *Active* | | 3 |
| MUSI 148B | Music Theory II *Active* | | 3 |
| MUSI 206A | Projects in Composition I *Active* | | 3 |
| MUSI 206B | Projects in Composition II *Active* | | 3 |
| MUSI 206C | Projects in Composition III *Launched* | | 3 |
| MUSI 206D | Projects in Composition IV *Launched* | | 3 |
| MUSI 268A | Ear Training I *Active* | | 1 |
| MUSI 268B | Ear Training II *Active* | | 1 |

Total Units

23

| DATES & CODES | | DATES & CODES | |
|----------------------------|-------------------------------------|---------------------|-------------------------------------|
| CIC Approval: 11/12/2020 | | CIC Approval: | |
| Board Approval: 12/17/2020 | TOP Code: 1004.00 | Board Approval: | TOP Code: 1004.00 |
| State Approval: 02/03/2021 | State Approval (Unique) Code: 38960 | State Approval: | State Approval (Unique) Code: 38960 |
| Subject Area: Music | Report Run: 02/24/2023 12:33 AM | Subject Area: Music | Report Run: 02/24/2023 12:33 AM |
| Program Area: Music | Program ID: 4110 | Program Area: Music | Program ID: 4458 |

Previous Report

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:02/03/2020

Proposed Start:Fall 2021

Need for Proposal:

Program revision to reflect course renumbering (MUSI 116A/B to 124A/B; MUSI 158A/B to MUSI 148A/B) with change from 27 to 23 units.

Attached Documents:

[CA Music Composition Assist](#)

[CA Music Composition](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Award Notes:

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

The academic program in Music will prepare students to transfer to 4 year universities as a music major (performance or non-performance) and to develop basic skills that relate to careers in the music industry.

Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|---------------------------------------|--|-------|
| MUSI 123A | Recital Hour I *Active* | | 0.5 |
| MUSI 123B | Recital Hour II *Active* | | 0.5 |
| MUSI 124A | Piano Class I *Active* | | 1 |
| MUSI 124B | Piano Class II *Active* | | 1 |
| MUSI 148A | Music Theory I *Active* | | 3 |
| MUSI 148B | Music Theory II *Active* | | 3 |
| MUSI 205A | Audio Production Projects I *Active* | | 3 |
| MUSI 205B | Audio Production Projects II *Active* | | 3 |
| MUSI 206A | Projects in Composition I *Active* | | 3 |
| MUSI 206B | Projects in Composition II *Active* | | 3 |
| MUSI 268A | Ear Training I *Active* | | 1 |
| MUSI 268B | Ear Training II *Active* | | 1 |

Total Units

23

Current Report

MESA - MUSIC COMPOSITION - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Dr. N. Scott Robinson

Origination

Date:09/26/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to reflect 1) removal of MUSI 205A & MUSI 205B, and 2) addition of MUSI 206C & MUSI 206D.

Attached Documents:

[Assist CA Music Composition](#)

[CA Music Composition Narrative](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Certificate of Achievement in Music Composition certifies that the student has completed the core course work in Music Composition and has demonstrated an operational understanding of music composition skills.

Award Notes:

Program Description:

The academic program in Music is designed to provide students with the sequenced fundamental skills for most musical pursuits for a transfer to a 4 year degree with a major in Music Performance (Classical or Jazz), non-performing music major or those seeking a career in the music industry.

Program Goals:

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Program Emphasis:

Career Options:

| COURSES REQUIRED FOR THE MAJOR: | | | UNITS |
|---------------------------------|----------------------------------------|--|-------|
| MUSI 123A | Recital Hour I *Active* | | 0.5 |
| MUSI 123B | Recital Hour II *Active* | | 0.5 |
| MUSI 124A | Piano Class I *Active* | | 1 |
| MUSI 124B | Piano Class II *Active* | | 1 |
| MUSI 148A | Music Theory I *Active* | | 3 |
| MUSI 148B | Music Theory II *Active* | | 3 |
| MUSI 206A | Projects in Composition I *Active* | | 3 |
| MUSI 206B | Projects in Composition II *Active* | | 3 |
| MUSI 206C | Projects in Composition III *Launched* | | 3 |
| MUSI 206D | Projects in Composition IV *Launched* | | 3 |
| MUSI 268A | Ear Training I *Active* | | 1 |
| MUSI 268B | Ear Training II *Active* | | 1 |

Total Units

23

DATES & CODES

CIC Approval: 11/12/2020
Board Approval: 12/17/2020
State Approval: 02/03/2021

TOP Code: 1004.00
State Approval (Unique) Code: 38960

Subject Area: Music
Program Area: Music

Report Run: 02/24/2023 12:33 AM
Program ID: 4110

DATES & CODES

CIC Approval:
Board Approval:
State Approval:

TOP Code: 1004.00
State Approval (Unique) Code: 38960

Subject Area: Music
Program Area: Music

Report Run: 02/24/2023 12:33 AM
Program ID: 4458

CITY - OFFICE ADMINISTRATIVE ASSISTANT - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

Origination

Date:08/30/2022

Proposed Start:Fall 2024

Need for Proposal:

Revise program title, previously titled Business Information Worker II.
Revise program description. Revise program career options. Revise award description. Remove from courses required for the major: CBTE 127, CBTE 152, CBTE 205, CBTE 206. Add to courses required for the major: BUSE 101, BUSE 119, CBTE 140 as an or to CBTE 143, CBTE 164, CBTE 180. Revise total units to 18-19 units from 16 units.

Attached Documents:

[Archive COCI Approval Letter_01-06-2021](#)

[Archive_Regional Consortium_12-2016](#)

[COE LMI 09-19-2022](#)

[COE LMI 03-29-2021](#)

[COE LMI 04-2019](#)

[COE LMI 05-2021](#)

[LMI SOC43-4011](#)

[LMI SOC43-4199](#)

[LMI SOC43-5061](#)

[LMI SOC43-6014](#)

[LMI SOC43-5081](#)

[Narrative_FA2024_2022-12-02](#)

[Regional Consortium Recommendation_11-18-2022](#)

[Regional Consortium Minutes_11-18-2022](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Office Administration Assistant Certificate of Achievement is designed to prepare students for entry-level office and administrative support in a variety of fields or businesses. The goal of the Office Administration Assistant Certificate of Achievement is to prepare students for entry-level office and administrative support in the following areas: Basic oral and written business communications; basic computer application skills, including beginning Excel and Outlook; the fundamentals of computer systems; and critical thinking and problem solving. This certificate allows students desiring office skills to select courses that best serve their particular interests and meet the ever-changing demands and requirements of the job market.

Award Notes:

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

Program Description:

The Computer Business Technology program offers hands-on training in Microsoft Office applications. Skills learned in this program can be applied to any career field. Emphasis is placed on enhancing computer skills for college success and/or employment in entry-level

business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

Examples of careers in computer business technology include: brokerage clerk, information and record clerk, general office clerk, order clerk, receptionist, entry-level administrative assistant, administrative clerk, cashier receptionist, clerical technician, customer service rep, mortgage receptionist, etc.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|----------------------------------------|----------------------------------------------|--------------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 101 | Business Mathematics *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| BUSE 119 | Business Communications *Active* | 3 |
| CBTE 140 | Beginning Microsoft Excel *Active* | 2 |
| or CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 164 | Introduction to Microsoft Outlook *Approved* | 1 |
| CBTE 180 | Microsoft Office *Active* | 3 |

| | |
|-------------|---------|
| Total Units | 18 - 19 |
|-------------|---------|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0702.10

State Approval (Unique) Code: 36567

Subject Area: Computer Business
Technology

Report Run: 02/24/2023 12:33 AM

Program Area: Computer Business
Technology

Program ID: 4423

Previous Report

CITY - BUSINESS INFORMATION WORKER II - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

**Origination
Date:**10/18/2019

Proposed Start:Fall 2021

Need for Proposal:

Remove CBTE 155 from courses required for the major. Revise program and award description.

Attached Documents:

[Narrative \(10.21.19\)](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Business Information Worker II Certificate of Achievement is designed to provide students with the intermediate-level office skills that can facilitate advancement from entry-level to higher-level office and administrative support positions. Emphasis is placed on preparing students for advancement in general office environments in a variety of fields.

Award Notes:

Program Description:

The Computer Business Technology program offers certificates and degrees in entry-level positions. Skills learned in this program can be applied to any career field. Business Information Worker programs are offered for both transfer and career-oriented students. Emphasis is placed on upgrading computer skills for college success and/or employment in business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

The Business Information Worker II Certificate of Achievement is designed to provide students with the intermediate-level office skills that can facilitate advancement from entry-level to higher-level office and administrative support positions. Emphasis is placed on preparing students for advancement in general office environments in a variety of fields.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|-------------------------------------------|-------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| CBTE 127 | Beginning Microsoft PowerPoint *Active* | 2 |
| CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 152 | Beginning Microsoft Access *Active* | 2 |
| CBTE 205 | Records Management *Active* | 3 |
| or CBTE 206 | Electronic Records Management *Active* | 3 |

Total Units

16

DATES & CODES

Current Report

CITY - OFFICE ADMINISTRATIVE ASSISTANT - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

**Origination
Date:**08/30/2022

Proposed Start:Fall 2024

Need for Proposal:

Revise program title, previously titled Business Information Worker II. Revise program description. Revise program career options. Revise award description. Remove from courses required for the major: CBTE 127, CBTE 152, CBTE 205, CBTE 206. Add to courses required for the major: BUSE 101, BUSE 119, CBTE 140 as an or to CBTE 143, CBTE 164, CBTE 180. Revise total units to 18-19 units from 16 units.

Attached Documents:

[Archive COCI Approval Letter 01-06-2021](#)

[Archive Regional Consortium 12-2016](#)

[COE LMI 09-19-2022](#)

[COE LMI 03-29-2021](#)

[COE LMI 04-2019](#)

[COE LMI 05-2021](#)

[LMI SOC43-4011](#)

[LMI SOC43-4199](#)

[LMI SOC43-5061](#)

[LMI SOC43-6014](#)

[LMI SOC43-5081](#)

[Narrative_FA2024_2022-12-02](#)

[Regional Consortium Recommendation 11-18-2022](#)

[Regional Consortium Minutes 11-18-2022](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Office Administration Assistant Certificate of Achievement is designed to prepare students for entry-level office and administrative support in a variety of fields or businesses. The goal of the Office Administration Assistant Certificate of Achievement is to prepare students for entry-level office and administrative support in the following areas: Basic oral and written business communications; basic computer application skills, including beginning Excel and Outlook; the fundamentals of computer systems; and critical thinking and problem solving. This certificate allows students desiring office skills to select courses that best serve their particular interests and meet the ever-changing demands and requirements of the job market.

Award Notes:

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

Program Description:

The Computer Business Technology program offers hands-on training in Microsoft Office applications. Skills learned in this program can be applied to any career field. Emphasis is

CIC Approval: 03/26/2020
Board Approval: 05/14/2020
State Approval: 01/06/2021

Subject Area: Computer Business
Technology
Program Area: Computer Business
Technology

TOP Code: 0702.10
State Approval (Unique) Code: 36567

Report Run: 02/24/2023 12:33 AM
Program ID: 4037

placed on enhancing computer skills for college success and/or employment in entry-level business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

Examples of careers in computer business technology include: brokerage clerk, information and record clerk, general office clerk, order clerk, receptionist, entry-level administrative assistant, administrative clerk, cashier receptionist, clerical technician, customer service rep, mortgage receptionist, etc.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|----------------------------------------------|-------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 101 | Business Mathematics *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| BUSE 119 | Business Communications *Active* | 3 |
| CBTE 140 | Beginning Microsoft Excel *Active* | 2 |
| or CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 164 | Introduction to Microsoft Outlook *Approved* | 1 |
| CBTE 180 | Microsoft Office *Active* | 3 |

Total Units 18 - 19

DATES & CODES

CIC Approval:
Board Approval: TOP Code: 0702.10
State Approval: State Approval (Unique) Code: 36567

Subject Area: Computer Business
Technology
Program Area: Computer Business
Technology
Report Run: 02/24/2023 12:33 AM
Program ID: 4423

Previous Report

CITY - BUSINESS INFORMATION WORKER II - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

**Origination
Date:**10/18/2019

Proposed Start:Fall 2021

Need for Proposal:

Remove CBTE 155 from courses required for the major. Revise program and award description.

Attached Documents:

[Narrative \(10.21.19\)](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Business Information Worker II Certificate of Achievement is designed to provide students with the intermediate-level office skills that can facilitate advancement from entry-level to higher-level office and administrative support positions. Emphasis is placed on preparing students for advancement in general office environments in a variety of fields.

Award Notes:

Program Description:

The Computer Business Technology program offers certificates and degrees in entry-level positions. Skills learned in this program can be applied to any career field. Business Information Worker programs are offered for both transfer and career-oriented students. Emphasis is placed on upgrading computer skills for college success and/or employment in business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

The Business Information Worker II Certificate of Achievement is designed to provide students with the intermediate-level office skills that can facilitate advancement from entry-level to higher-level office and administrative support positions. Emphasis is placed on preparing students for advancement in general office environments in a variety of fields.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|-------------------------------------------|-------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| CBTE 127 | Beginning Microsoft PowerPoint *Active* | 2 |
| CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 152 | Beginning Microsoft Access *Active* | 2 |
| CBTE 205 | Records Management *Active* | 3 |
| or CBTE 206 | Electronic Records Management *Active* | 3 |

Total Units

16

DATES & CODES

Current Report

CITY - OFFICE ADMINISTRATIVE ASSISTANT - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Theresa Savarese

**Origination
Date:**08/30/2022

Proposed Start:Fall 2024

Need for Proposal:

Revise program title, previously titled Business Information Worker II. Revise program description. Revise program career options. Revise award description. Remove from courses required for the major: CBTE 127, CBTE 152, CBTE 205, CBTE 206. Add to courses required for the major: BUSE 101, BUSE 119, CBTE 140 as an or to CBTE 143, CBTE 164, CBTE 180. Revise total units to 18-19 units from 16 units.

Attached Documents:

[Archive COCI Approval Letter 01-06-2021](#)

[Archive Regional Consortium 12-2016](#)

[COE LMI 09-19-2022](#)

[COE LMI 03-29-2021](#)

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[LMI SOC43-4011](#)

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[LMI SOC43-6014](#)

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[Narrative_FA2024_2022-12-02](#)

[Regional Consortium Recommendation 11-18-2022](#)

[Regional Consortium Minutes 11-18-2022](#)

PROGRAM & AWARD INFORMATION

Award Description:

The Office Administration Assistant Certificate of Achievement is designed to prepare students for entry-level office and administrative support in a variety of fields or businesses. The goal of the Office Administration Assistant Certificate of Achievement is to prepare students for entry-level office and administrative support in the following areas: Basic oral and written business communications; basic computer application skills, including beginning Excel and Outlook; the fundamentals of computer systems; and critical thinking and problem solving. This certificate allows students desiring office skills to select courses that best serve their particular interests and meet the ever-changing demands and requirements of the job market.

Award Notes:

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

Program Description:

The Computer Business Technology program offers hands-on training in Microsoft Office applications. Skills learned in this program can be applied to any career field. Emphasis is

CIC Approval: 03/26/2020
Board Approval: 05/14/2020
State Approval: 01/06/2021

Subject Area: Computer Business
Technology
Program Area: Computer Business
Technology

TOP Code: 0702.10
State Approval (Unique) Code: 36567

Report Run: 02/24/2023 12:33 AM
Program ID: 4037

placed on enhancing computer skills for college success and/or employment in entry-level business office environments.

Program Goals:

This section is no longer updated in CurricUNET.

Program Emphasis:

Career Options:

Examples of careers in computer business technology include: brokerage clerk, information and record clerk, general office clerk, order clerk, receptionist, entry-level administrative assistant, administrative clerk, cashier receptionist, clerical technician, customer service rep, mortgage receptionist, etc.

The Computer Business Technology Department requires students to complete all CBTE requirements for the certificate within five years.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|----------------------------------------------|-------|
| ACCT 150 | Computer Accounting Applications *Active* | 3 |
| BUSE 101 | Business Mathematics *Active* | 3 |
| BUSE 102 | Introduction to Customer Service *Active* | 3 |
| BUSE 119 | Business Communications *Active* | 3 |
| CBTE 140 | Beginning Microsoft Excel *Active* | 2 |
| or CBTE 143 | Intermediate Microsoft Excel *Active* | 3 |
| CBTE 164 | Introduction to Microsoft Outlook *Approved* | 1 |
| CBTE 180 | Microsoft Office *Active* | 3 |

Total Units 18 - 19

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 0702.10

State Approval (Unique) Code: 36567

Subject Area: Computer Business
Technology
Program Area: Computer Business
Technology

Report Run: 02/24/2023 12:33 AM
Program ID: 4423

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jennifer Snyder

Origination

Date:09/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to: 1) remove MATH 104 & MATH 141 (being deactivated), 2) add MATH 141A & MATH 141B, and 3) PSYC 258 as option to MATH 119. No unit change.

Attached Documents:

[PHYN AS Narrative 2-2023](#)

[ASSIST - SDSU Geology](#)

[ASSIST - SDSU Astronomy](#)

[ASSIST - SDSU Chemistry](#)

[ASSIST - SDSU Physics](#)

[ASSIST - SDSU Math](#)

PROGRAM & AWARD INFORMATION

Award Description:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|----------------------------------------------------------------------|--------------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| AT LEAST 3 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|----------------------------------------|--------------|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|-------------------------------------------|--------------|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|---------------------------------------------|----------------------------------------------|--------------|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4454

Previous Report

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

Origination

Date:02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, & PHYR 114; 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107); and 3) remove Recommended Electives.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
|----------|------------------------------------|---|

Current Report

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jennifer Snyder

Origination

Date:09/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to: 1) remove MATH 104 & MATH 141 (being deactivated), 2) add MATH 141A & MATH 141B, and 3) PSYC 258 as option to MATH 119. No unit change.

Attached Documents:

[PHYN AS Narrative 2-2023](#)

[ASSIST - SDSU Geology](#)

[ASSIST - SDSU Astronomy](#)

[ASSIST - SDSU Chemistry](#)

[ASSIST - SDSU Physics](#)

[ASSIST - SDSU Math](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

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Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |

| | | |
|-----------|----------------------------------------------------------------------|---|
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| AT LEAST 3 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------|-------|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-------------------------------------------|-------|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------------|-------|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval: 04/26/2018

Board Approval: 06/07/2018

State Approval: 01/07/2019

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 3618

| | | |
|----------|--------------------------------------------|---|
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| AT LEAST 3 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------|-------|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-------------------------------------------|-------|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------------|-------|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4454

Previous Report

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

Origination

Date:02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, & PHYR 114; 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107); and 3) remove Recommended Electives.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
|----------|------------------------------------|---|

Current Report

MESA - PHYSICAL SCIENCES - ASSOCIATE OF SCIENCE DEGREE

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Jennifer Snyder

Origination

Date:09/20/2022

Proposed Start:Fall 2024

Need for Proposal:

Program revision to: 1) remove MATH 104 & MATH 141 (being deactivated), 2) add MATH 141A & MATH 141B, and 3) PSYC 258 as option to MATH 119. No unit change.

Attached Documents:

[PHYN AS Narrative 2-2023](#)

[ASSIST - SDSU Geology](#)

[ASSIST - SDSU Astronomy](#)

[ASSIST - SDSU Chemistry](#)

[ASSIST - SDSU Physics](#)

[ASSIST - SDSU Math](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

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Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|----------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| ASTR 109 | Practice in Observing *Active* | 1 |
| ASTR 111 | Astronomy Laboratory *Active* | 1 |
| GEOL 104 | Earth Science *Active* | 3 |
| GEOL 120 | Earth Science Laboratory *Active* | 1 |

| | | |
|-----------|----------------------------------------------------------------------|---|
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| AT LEAST 3 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------|-------|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-------------------------------------------|-------|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------------|-------|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 104 | Trigonometry *Active* | 3 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| MATH 141 | Precalculus *Active* | 5 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval: 04/26/2018

Board Approval: 06/07/2018

State Approval: 01/07/2019

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 3618

| | | |
|----------|--------------------------------------------|---|
| GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| AT LEAST 3 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------|-------|
| GEOG 101 | Physical Geography *Active* | 3 |
| GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-------------------------------------------|-------|
| PHYS 100 | Introductory Physics *Historical* | 4 |
| PHYS 125 | General Physics *Active* | 5 |
| PHYS 126 | General Physics II *Active* | 5 |
| PHYS 195 | Mechanics *Active* | 5 |
| PHYS 196 | Electricity and Magnetism *Active* | 5 |
| PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|----------------------------------------------|-------|
| MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| MATH 119 | Elementary Statistics *Active* | 3 |
| or PSYC 258 | Behavioral Science Statistics *Active* | 3 |
| MATH 141A | Precalculus I *Launched* | 4 |
| MATH 141B | Precalculus II *Launched* | 4 |
| MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 05357

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4454

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Deactivation

Proposal Originator:Jennifer Snyder

Origination

Date:12/14/2022

Proposed Start:Fall 2024

Need for Proposal:

Deactivation proposal for PHYN CA due to low completion numbers.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

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Program Emphasis:

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Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

COURSES REQUIRED FOR THE MAJOR:

UNITS

| | | |
|----------|--------------------------------------|---|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

AT LEAST 4 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|-------------|---------------------------------------------------------------|---|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

AT LEAST 8 UNITS FROM THE FOLLOWING:

UNITS

| | | |
|--------------|----------------------------------------------------------------------|---|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or CHEM 152 | Introduction to General Chemistry *Active* | 3 |

| | | | |
|----|-----------|-------------------------------------------------------|---|
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| | |
|---------------------------------------------|--------------|
| AT LEAST 3 UNITS FROM THE FOLLOWING: | UNITS |
|---------------------------------------------|--------------|

| | | | |
|----|-----------|----------------------------------------|---|
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| | |
|---------------------------------------------|--------------|
| AT LEAST 8 UNITS FROM THE FOLLOWING: | UNITS |
|---------------------------------------------|--------------|

| | | | |
|----|----------|-------------------------------------------|---|
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| | |
|------------------------------------------------------|--------------|
| AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: | UNITS |
|------------------------------------------------------|--------------|

| | | | |
|----|----------|----------------------------------------------|---|
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science

Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM

Program ID: 4491

Previous Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

**Origination
Date:**02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, and 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107).

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| AT LEAST 4 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |

Current Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Deactivation

Proposal Originator:Jennifer Snyder

**Origination
Date:**12/14/2022

Proposed Start:Fall 2024

Need for Proposal:

Deactivation proposal for PHYN CA due to low completion numbers.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

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| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| AT LEAST 4 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-----------------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |

| | | | |
|----|-----------|----------------------------------------------------------------------|---|
| or | CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or | CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or | CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or | CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

AT LEAST 3 UNITS FROM THE FOLLOWING: UNITS

| | | | |
|----|-----------|----------------------------------------|---|
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | | |
|----|----------|-------------------------------------------|---|
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: UNITS

| | | | |
|----|----------|----------------------------------------------|---|
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 35

DATES & CODES

CIC Approval: 04/26/2018

Board Approval: 06/07/2018

State Approval: 01/07/2019

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 3617

| | | | |
|----|-----------|----------------------------------------------------------------------|---|
| or | CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or | CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or | CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

AT LEAST 3 UNITS FROM THE FOLLOWING: UNITS

| | | | |
|----|-----------|----------------------------------------|---|
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

AT LEAST 8 UNITS FROM THE FOLLOWING: UNITS

| | | | |
|----|----------|-------------------------------------------|---|
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: UNITS

| | | | |
|----|----------|----------------------------------------------|---|
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

Total Units 35

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4491

Previous Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

**Origination
Date:**02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, and 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107).

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

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| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| AT LEAST 4 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |

Current Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Deactivation

Proposal Originator:Jennifer Snyder

**Origination
Date:**12/14/2022

Proposed Start:Fall 2024

Need for Proposal:

Deactivation proposal for PHYN CA due to low completion numbers.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

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| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| AT LEAST 4 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-----------------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |

| | | | |
|----|-----------|----------------------------------------------------------------------|---|
| or | CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or | CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or | CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or | CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| | | | |
|---------------------------------------------|-----------|----------------------------------------|--------------|
| AT LEAST 3 UNITS FROM THE FOLLOWING: | | | UNITS |
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| | | | |
|---------------------------------------------|----------|-------------------------------------------|--------------|
| AT LEAST 8 UNITS FROM THE FOLLOWING: | | | UNITS |
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| | | | |
|------------------------------------------------------|----------|----------------------------------------------|--------------|
| AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: | | | UNITS |
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

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|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval: 04/26/2018

Board Approval: 06/07/2018

State Approval: 01/07/2019

TOP Code: 1901.00

State Approval (Unique) Code: 22320

Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 3617

| | | | |
|----|-----------|----------------------------------------------------------------------|---|
| or | CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or | CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or | CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

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|---------------------------------------------|-----------|----------------------------------------|--------------|
| AT LEAST 3 UNITS FROM THE FOLLOWING: | | | UNITS |
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

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|---------------------------------------------|----------|-------------------------------------------|--------------|
| AT LEAST 8 UNITS FROM THE FOLLOWING: | | | UNITS |
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

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|------------------------------------------------------|----------|----------------------------------------------|--------------|
| AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: | | | UNITS |
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval:

Board Approval:

State Approval:

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Subject Area: Physical Science
Program Area: Physical Sciences

Report Run: 02/24/2023 12:33 AM
Program ID: 4491

Previous Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Revision

Proposal Originator:Donald Barrie

**Origination
Date:**02/07/2018

Proposed Start:Fall 2019

Need for Proposal:

Program revision to: 1) Add ASTR 102, GEOL 120, GEOL 104, and 2) remove courses not active at Mesa (i.e. Physics 180A, 180B, 181A and 181B; Math 107).

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| AT LEAST 4 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |

Current Report

MESA - PHYSICAL SCIENCES - CERTIFICATE OF ACHIEVEMENT

PROPOSAL INFORMATION

Action Proposed:Program Deactivation

Proposal Originator:Jennifer Snyder

**Origination
Date:**12/14/2022

Proposed Start:Fall 2024

Need for Proposal:

Deactivation proposal for PHYN CA due to low completion numbers.

Attached Documents:

[Catalog Changes](#)

PROGRAM & AWARD INFORMATION

Award Description:

Award Notes:

Program Description:

Physical Sciences is a multidisciplinary program promoting an appreciation for various disciplines such as physics, chemistry, astronomy and earth sciences by exposing students to various methodologies.

Program Goals:

This program serves the students to transfer to four-year colleges and to acquire the necessary skills for employment as technicians.

Program Emphasis:

The Physical Sciences Program prepares students for transfer to four-year institutions. Students may acquire skills for employment in science education and science journalism.

Career Options:

Most careers in physical sciences require education beyond the associate degree and some require a graduate degree. Careers utilizing physical sciences are lab technician, teacher at elementary or secondary level and science journalist.

| COURSES REQUIRED FOR THE MAJOR: | | UNITS |
|---------------------------------|--------------------------------------|-------|
| GEOL 100 | Physical Geology *Active* | 3 |
| GEOL 101 | Physical Geology Laboratory *Active* | 1 |

| AT LEAST 4 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|---------------------------------------------------------------|-------|
| ASTR 101 | Descriptive Astronomy *Active* | 3 |
| or ASTR 102 | Exploring The Solar System And Life Beyond The Earth *Active* | 3 |
| or ASTR 109 | Practice in Observing *Active* | 1 |
| or ASTR 111 | Astronomy Laboratory *Active* | 1 |
| or GEOL 104 | Earth Science *Active* | 3 |
| or GEOL 120 | Earth Science Laboratory *Active* | 1 |
| or GEOL 130 | Field Geology of San Diego County *Active* | 4 |
| or PHYN 114 | Weather and Climate *Active* | 3 |

| AT LEAST 8 UNITS FROM THE FOLLOWING: | | UNITS |
|--------------------------------------|-----------------------------------------------|-------|
| CHEM 100 | Fundamentals of Chemistry *Active* | 3 |
| or CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |

| | | | |
|----|-----------|----------------------------------------------------------------------|---|
| or | CHEM 100L | Fundamentals of Chemistry Laboratory *Active* | 1 |
| or | CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or | CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or | CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| | | | |
|---------------------------------------------|-----------|----------------------------------------|--------------|
| AT LEAST 3 UNITS FROM THE FOLLOWING: | | | UNITS |
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| | | | |
|---------------------------------------------|----------|-------------------------------------------|--------------|
| AT LEAST 8 UNITS FROM THE FOLLOWING: | | | UNITS |
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| | | | |
|------------------------------------------------------|----------|----------------------------------------------|--------------|
| AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: | | | UNITS |
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
|-------------|----|
| Total Units | 35 |
|-------------|----|

DATES & CODES

CIC Approval: 04/26/2018

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Report Run: 02/24/2023 12:33 AM
Program ID: 3617

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| or | CHEM 130 | Introduction to Organic and Biological Chemistry *Active* | 3 |
| or | CHEM 130L | Introduction to Organic and Biological Chemistry Laboratory *Active* | 1 |
| or | CHEM 152 | Introduction to General Chemistry *Active* | 3 |
| or | CHEM 152L | Introduction to General Chemistry Laboratory *Active* | 1 |
| or | CHEM 200 | General Chemistry I - Lecture *Active* | 3 |
| or | CHEM 200L | General Chemistry I - Laboratory *Active* | 2 |
| or | CHEM 201 | General Chemistry II - Lecture *Active* | 3 |
| or | CHEM 201L | General Chemistry II - Laboratory *Active* | 2 |

| | | | |
|---------------------------------------------|-----------|----------------------------------------|--------------|
| AT LEAST 3 UNITS FROM THE FOLLOWING: | | | UNITS |
| | GEOG 101 | Physical Geography *Active* | 3 |
| or | GEOG 101L | Physical Geography Laboratory *Active* | 1 |

| | | | |
|---------------------------------------------|----------|-------------------------------------------|--------------|
| AT LEAST 8 UNITS FROM THE FOLLOWING: | | | UNITS |
| | PHYS 100 | Introductory Physics *Historical* | 4 |
| or | PHYS 125 | General Physics *Active* | 5 |
| or | PHYS 126 | General Physics II *Active* | 5 |
| or | PHYS 195 | Mechanics *Active* | 5 |
| or | PHYS 196 | Electricity and Magnetism *Active* | 5 |
| or | PHYS 197 | Waves, Optics and Modern Physics *Active* | 5 |

| | | | |
|------------------------------------------------------|----------|----------------------------------------------|--------------|
| AT LEAST 8 UNITS SELECTED FROM THE FOLLOWING: | | | UNITS |
| | MATH 96 | Intermediate Algebra and Geometry *Active* | 5 |
| or | MATH 104 | Trigonometry *Active* | 3 |
| or | MATH 118 | Math for the Liberal Arts Student *Active* | 3 |
| or | MATH 119 | Elementary Statistics *Active* | 3 |
| or | MATH 141 | Precalculus *Active* | 5 |
| or | MATH 150 | Calculus with Analytic Geometry I *Active* | 5 |
| or | MATH 151 | Calculus with Analytic Geometry II *Active* | 4 |
| or | MATH 252 | Calculus with Analytic Geometry III *Active* | 4 |

| | |
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| Total Units | 35 |
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