MISSION COLLEGE

ADDENDUM TO THE 2019-2020 CATALOG ADDENDUM
DATED JANUARY 16, 2020

This addendum contains new/revised courses and new/revised noncredit programs from the 2019-2020 Catalog Addendum dated August 1, 2019 and the 2019-2020 Catalog.
Course Preparation

Degree applicable courses require that a student be able to read college level textbooks, write college level essays, think critically, and study independently. All degree applicable courses carry an advisory of eligibility for ENG 001A or ENG 001AX and REA 054. Some courses carry additional advisories which are indicated in the course descriptions. An ADVISORY recommends a skill you should have or course you should have taken or should be eligible to take prior to enrollment in the course which carries the advisory. Advisories are recommendations, not requirements.

Some courses require specific pre- or corequisites to qualify for enrollment.

A PREREQUISITE is a course or skill which is required before you can enroll in a particular course. If you successfully completed a prerequisite course at Mission College, you will be eligible to enroll in the subsequent course as stated in the Catalog and Schedule of Classes. If you are currently enrolled in a prerequisite course, you may enroll now in the subsequent course for next semester. If you do not pass your current course and it is a prerequisite for the course in which you registered, you will be dropped from the course and your fees will be automatically refunded.

A COREQUISITE is a course which you must take at the same time as another course as a condition of enrollment. You are not be permitted to enroll in a class for which you cannot demonstrate you have met the prerequisite or are enrolled in the corequisite. In some cases a course may be listed as prerequisite OR corequisite. In this case the course can be taken prior to or at the same time as the

All prerequisites and corequisites may be met with an equivalent course.

Placement and Assessment services can assist you with clearing or challenging prerequisite or corequisite requirements if you believe you have acquired the necessary knowledge or ability through alternative means.

Mission College also offers noncredit courses, non-degree applicable credit courses, and some degree applicable credit courses which can help develop skills for success.
### Mission College CATALOG ADDENDUM JANUARY 2020

#### Academic Programs

### Graduation Requirements 2019-2020

Graduation Requirements 2019-2020

**Associate in Arts and Associate in Science Degrees**

Mission College will confer the **Associate in Arts (A.A.) or Associate in Science (A.S.)** degree upon a student who successfully completes requirements listed below in accordance with WMCCCD Board Policy 4025 and Title 5 § 55063. Graduation requirements (Major, Competency, and General Education) are listed in the College Catalog at the time studies begin. Those requirements may be followed throughout the course of study as long as the student remains in continuous enrollment which is defined as enrollment for at least one regular semester, summer session or winter session each academic year. If a break in attendance occurs, the graduation requirements shall become those listed in the College Catalog which is current at the time studies are resumed.

**Reciprocity Agreement:** Students completing all of the general education and graduation competency requirements at a participating college will be given full credit for having completed the Mission College general education-graduation requirements, including reading, writing, oral communication, mathematics, and information competency.

1. **Residency Requirement:** A minimum of 12 degree applicable units must be completed at Mission College.
2. **Scholarship Requirements:** An overall grade point average of 2.0 in 60 units of work reflected on all college transcripts.
3. **Major Requirement:** Fulfill a specialized major as listed in the college catalog with a grade of C (or “P”) or better in each major requirement.
4. **Basic Competency Requirements:** Proficiency in the following areas is required for graduates earning an AA or AS Spring 2020 or later:

**Writing:**
- Completion of the ENG 001A, English Composition I, or ENG 001AX, Intensive English Composition, with a grade of C or better.

**Reading:**
- A grade of C (or “P”) or better in REA 054, Critical College Reading and Thinking or ENG 001A or ENG 001AX.

**Oral Communication:**
- A. Successful completion of the proficiency exam or
- B. A grade of C (or “P”) or better in COM 001, 001H or COM 020, 020H for the A.A. Degree
- COM 001, 001H, COM 004, COM 020 or 020H for the A.S. Degree

**Mathematics:**
- A. Successful completion of the competency exam, or
- B. A grade of C (or “P”) or better in MAT 000C or equivalent or a transfer-level Math course.

5. **Area Requirements (General Education):** Complete a minimum of 24 units from Areas A – F, plus additional courses to meet unit requirements.

**All courses are three (3) semester units unless otherwise noted.**

### Area A – Language and Rationale

6 semester units / 9 quarter units minimum

1. **English Composition course**

| ENG 001A English Composition I or ENG 001AX Intensive English Composition |

2. **One additional course:**

| COM 001, 001H Public Speaking | MAT 000C or equivalent or a transfer-level Math course (3-5 units) |
| COM 004 Small Group Communications | PHI 002 Logic |
| COM 020, 020H Argumentation and Debate | PHI 003 Introduction to Ethics |
| CIS 001 Introduction to Computer Science and Technology (4) | POL 020 Controversial Legal Issues |
| ENG 001B English Composition | REA 054 Critical College Reading & Thinking |
| ENG 001C Clear Thinking in Writing | SOC 016 Introduction to Statistics in Social and Behavioral Sciences |
| EGR 030 Intro to Computing for Engineers | SPA 003, 004 Intermediate Language (5ea) |
| FRN 003,004 Intermediate Language (5ea) | |

### Area B – Natural Sciences

3 semester units / 4.5 quarter units minimum

These courses examine the physical universe, its life forms and its natural phenomena. Courses with a lab are underlined.

| ANT 001 Physical Anthropology |
| AST 001 Astronomy |
| AST 003 Astronomy with Lab (4) |
| AST 003H Astronomy w/ Lab – Honors (4) |
| AST 004 Astrobiology |
| BIO 001A, 001AH, 001B General Biology (5 ea) |
| BIO 004 Microbiology (5) |
| BIO 010 Introduction to Biology |
| BIO 010L Introduction to Biology Lab (1) |
| BIO 011 Human Biology (4) |
| BIO 012 Emerging Infectious Disease |
| BIO 014, 014H Introductory Neuroscience |
| BIO 016 Marine Biology (4) |
| BIO 017, 017H Genetics and Society |
| BIO 019 Oceans: Life in the Sea |
| BIO 022 Anat & Physiology for Allied Health Workers (4) |
| BIO 025 Environmental Biology |
| BIO 030 Tropical Ecology (3) |
| BIO 030L Tropical Ecology Field Studies (1) |
| BIO 032 California Plants and Animal (4) |
| BIO 047, 048, 048H Human Anatomy, Physiology (5ea) |
| CHM 001A,001AH, 001B, 001AH General Chemistry (5ea) |
| CHM 002 Introductory Chemistry |
| CHM 002L Introduction to Chemistry Lab (1) |
| CHM 007 Biochemistry: An Introduction to Structure, Enzymes & Metabolism |
| CHM 012A, 012AH, 012B, 012BH Organic Chemistry (5ea) |
| CHM 030A,030B Fundamentals of Chemistry (4) |
| CHM 060 Survey of General, Organic and Biological Chemistry (4) |
| GEO 001 Introduction to Physical Geography |
| NTR 015 Human Nutrition |
| NTR 040 Nutrition and Disease |
| NTR 052 Nutrition for Children |
| PHY 002A,002AH General Physics (5ea) |
| PHY 004A,004B,004C Engineering Physics (5ea) |
| PHY 004D Engineering Physics - Atomic (2) |
| PHY 010 Introduction to Physics (4) |
| PSY 007 Biological Psychology |
### AREA C – HUMANITIES – 3 semester units / 4.5 quarter units minimum

These courses develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creation. **NOTE:** Three 1-unit classes alone may not be used to satisfy this category.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ARB 001, 002</td>
<td>First, Second Semester Arabic</td>
</tr>
<tr>
<td>ART 001A</td>
<td>Survey of Western Art I</td>
</tr>
<tr>
<td>ART 001B</td>
<td>Survey of Western Art II</td>
</tr>
<tr>
<td>ART 001D</td>
<td>Survey of Modern Art</td>
</tr>
<tr>
<td>ART 004</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 007</td>
<td>Survey of Asian Art</td>
</tr>
<tr>
<td>ART 011</td>
<td>The History of Modern Design</td>
</tr>
<tr>
<td>ART 031A</td>
<td>Drawing</td>
</tr>
<tr>
<td>ART 033A</td>
<td>Basic Design: Two-Dimensional</td>
</tr>
<tr>
<td>ART 033B</td>
<td>Basic Design: Three-Dimensional</td>
</tr>
<tr>
<td>ART 034A, 034B</td>
<td>Introduction to/Advanced Digital Art</td>
</tr>
<tr>
<td>ART 035A, 035B</td>
<td>Life Drawing</td>
</tr>
<tr>
<td>ART 039A</td>
<td>Survey of Printmaking</td>
</tr>
<tr>
<td>ART 047A, 047B</td>
<td>Watercolor</td>
</tr>
<tr>
<td>ART 049A, 049B</td>
<td>Ceramics-Handbuilding</td>
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<tr>
<td>ART 067A, 067B</td>
<td>Ceramics-Potter's Wheel</td>
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<tr>
<td>ART 075A, 075B</td>
<td>Metalsmithing</td>
</tr>
<tr>
<td>ART 078A, 078B</td>
<td>Furniture Design and Construction</td>
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<tr>
<td>ART 085A, 085B</td>
<td>Sculpture</td>
</tr>
<tr>
<td>ART 088A, 088B</td>
<td>Metal Sculpture Casting</td>
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<tr>
<td>CHI 001, 002</td>
<td>First/Second Semester Chinese</td>
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<tr>
<td>COM 012</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>ENG 008</td>
<td>English Composition</td>
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<tr>
<td>ENG 009A, 009B</td>
<td>English Literature</td>
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<tr>
<td>ENGL 006B</td>
<td>World Literature</td>
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<tr>
<td>ENG 007A, 007B</td>
<td>American Literature</td>
</tr>
<tr>
<td>ENG 013</td>
<td>Chicana/o-Latina/o Literature</td>
</tr>
<tr>
<td>ENG 015</td>
<td>Intro. to Film Analysis</td>
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<tr>
<td>ENG 043</td>
<td>Classical Mythology</td>
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<tr>
<td>ENG 046</td>
<td>Introduction to Shakespeare</td>
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<tr>
<td>ENG 070</td>
<td>Creative Writing</td>
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<tr>
<td>FRN 001, 002</td>
<td>First/Second Semester French - Elementary (5 ea)</td>
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<tr>
<td>FRN 003, 004</td>
<td>Third/Forth Semester French - Intermediate (5 ea)</td>
</tr>
<tr>
<td>FRN 001L, 002L</td>
<td>French Lab (0.5 ea)</td>
</tr>
<tr>
<td>GDS 011</td>
<td>The History of Modern Design</td>
</tr>
<tr>
<td>GDS 012</td>
<td>History of Photography</td>
</tr>
<tr>
<td>GDS 015</td>
<td>Photo-media and Social Change</td>
</tr>
<tr>
<td>GDS 073</td>
<td>Digital Photography</td>
</tr>
<tr>
<td>HIS 004A, 004AH</td>
<td>History of Western Civilization</td>
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<tr>
<td>HIS 004B, 004BH</td>
<td>History of Western Civilization</td>
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<tr>
<td>HIS 015, 015H</td>
<td>World History to 1500</td>
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<tr>
<td>HIS 016, 016H</td>
<td>World History since 1500</td>
</tr>
<tr>
<td>HIS 017A, 017AH</td>
<td>History of the United States to 1877</td>
</tr>
<tr>
<td>HIS 017B, 017BH</td>
<td>History of the United States since 1877</td>
</tr>
<tr>
<td>HIS 033, 033H</td>
<td>Women’s Issues Past and Present</td>
</tr>
<tr>
<td>HUM 001A, 001B</td>
<td>Human Values in and from the Arts</td>
</tr>
<tr>
<td>HUM 007</td>
<td>International Films</td>
</tr>
<tr>
<td>HUM 015</td>
<td>Intro to Film Analysis</td>
</tr>
<tr>
<td>HUM 016A</td>
<td>Hispanic Roots and Culture</td>
</tr>
<tr>
<td>HUM 018, 018H</td>
<td>African American Culture/Humanities</td>
</tr>
<tr>
<td>HUM 020</td>
<td>Asian Roots and Culture</td>
</tr>
<tr>
<td>HUM 022</td>
<td>Introduction to Islam</td>
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<tr>
<td>HUM 024</td>
<td>The American Experience</td>
</tr>
<tr>
<td>JPN 001, 002</td>
<td>First/Second Semester Japanese - Elementary (5 ea)</td>
</tr>
<tr>
<td>KIN 041 – 048</td>
<td>All Dance Classes see catalog for complete course titles and units</td>
</tr>
<tr>
<td>KIN 080</td>
<td>Dance Appreciation (formerly WHP 040)</td>
</tr>
<tr>
<td>MUS 005</td>
<td>Fundamentals of Music Theory</td>
</tr>
<tr>
<td>MUS 006</td>
<td>Commercial Music Theory</td>
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<tr>
<td>MUS 007</td>
<td>Commercial Music Theory II</td>
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<tr>
<td>MUS 010</td>
<td>Music Appreciation</td>
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<tr>
<td>MUS 015</td>
<td>History of Rock Music</td>
</tr>
<tr>
<td>MUS 017</td>
<td>Musics of the World</td>
</tr>
<tr>
<td>MUS 030A, 031A</td>
<td>Beginning/Intermediate Piano (1 ea)</td>
</tr>
<tr>
<td>MUS 032A, 033A</td>
<td>Beginning/Intermediate Voice (1 ea)</td>
</tr>
<tr>
<td>MUS 036A, 037A</td>
<td>Beginning Guitar (1 ea)</td>
</tr>
<tr>
<td>MUS 041A, 041B</td>
<td>Mission Chorus (1 ea)</td>
</tr>
<tr>
<td>MUS 048A, 048B</td>
<td>Symphony Orchestra (1 ea)</td>
</tr>
<tr>
<td>PHI 001</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHI 002</td>
<td>Logic</td>
</tr>
<tr>
<td>PHI 003</td>
<td>Introduction to Problems in Ethics</td>
</tr>
<tr>
<td>PHI 005</td>
<td>Introduction to Social and Political Philosophy</td>
</tr>
<tr>
<td>POL 003</td>
<td>Introduction to Social and Political Philosophy</td>
</tr>
<tr>
<td>SPA 001, 002</td>
<td>First/Second Semester Spanish - Elementary (5 ea)</td>
</tr>
<tr>
<td>SPA 001L, 002L</td>
<td>Spanish Lab (.5 ea)</td>
</tr>
<tr>
<td>SPA 003, 004</td>
<td>Third/Forth Semester Spanish - Intermediate (5 ea)</td>
</tr>
<tr>
<td>SPA 050A, 050B</td>
<td>Basic Conversational Spanish</td>
</tr>
<tr>
<td>VIE 001, 002</td>
<td>First/Second Semester Vietnamese - Elementary (5 ea)</td>
</tr>
<tr>
<td>VIE 049A, 049B</td>
<td>Vietnamese Language &amp; Culture for Fluent Speakers</td>
</tr>
</tbody>
</table>

**NOTE:** Course noted with an # also satisfy Area F. See page 2 for more information.
**AREA D — SOCIAL & BEHAVIORAL SCIENCES**

**Series 1: Social and Behavioral Sciences (3 sem units / 4.5 qtr units):** These courses deal with human, social, psychological, political, and economic institutions and behavior and their historical background, selected from among the following:

- ANT 003 Cultural Anthropology
- ANT 055 Magic, Witchcraft, & Religion
- BUS 061 Business and Society
- CHD 001 Child Growth & Development
- CHD 002 Child, Family and Community
- CHD 013 Teaching Children in a Diverse Society
- COM 025 Mass Communication and Society
- COU 055 Valuing Diversity
- ECN 001A Principles of Macroeconomics
- ECN 001B Principles of Microeconomics
- ECN 006 The Global Economy
- GEO 002 Introduction to Cultural Geography
- GEO 006 World Regional Geography
- GLB 001 Global Perspectives
- GLB 002 Global Issues
- GLB 004 The Developing World
- HIS 004A, 004AH, 004B History of Western Civilization
- HIS 015, 015H World History to 1500
- HIS 016, 016H World History since 1500
- HIS 017A, 017AH United States History to 1877
- HIS 017B, 017BH United States History since 1877
- HIS 020 History and Geography of California
- HIS 033, 033H Women’s Issues Past and Present
- HUM 016A Hispanic Roots and Culture
- HUM 018, 018H African American Roots and Culture
- HUM 024 The Asian American Experience
- POL 001, 001H American Government
- POL 002 Comparative Government
- POL 004 International Relations
- POL 005 Political Science Research Methodology
- POL 006 Politics of Race, Class and Gender
- POL 007 International Films
- PSY 001, 001H General Psychology
- PSY 007 Biological Psychology
- PSY 010 Social Psychology
- PSY 012 Human Growth and Development
- PYS 015, 015H Introduction to Research Methods
- PYS 025 Introduction to Abnormal Psychology
- PSY 030 Psychology of Addiction and Substance Abuse
- PSY 045 Human Sexuality (Also ANT/SOC 045)
- SJS 001 Social Justice
- SJS 002 Introduction to Gender Studies
- SJS 003 Introduction to LGBTQ Studies
- SOC 001, 001H Introduction to Sociology
- SOC 002, 002H Social Problems
- SOC 021 Sociology of Minorities in the U.S.
- SOC 040 Marriage and Family
- SOC 045 Human Sexuality
- SOC 047 Sociology of Criminology
- SOC 050 Introduction to Criminal Justice
- SOC 054 Concepts of Criminal Law
- SOC 060 Community and the Justice System

**Series 2: American History and Institutions (3 sem/4 qtr units):** Demonstrate proficiency in American history or American government via credit by exam OR complete a course with a grade of C (or “P”) or better from one of the following:

- HIS 017A, 017AH History of United States to 1877
- HIS 020 History and Geography of California
- HIS 017B, 017BH History of United States since 1877
- POL 001, 001H American Government

**AREA E — LIFELONG LEARNING — 3 semester/4 quarter units minimum:** The Lifelong Learning requirement will be completed by the selection of either:

- **Option 1:** Three (3) units from Area A-2, B, C or D: OR
- **Option 2:** Three (3) units from courses listed below which cultivate self-understanding and development of the student as an integrated individual capable of coping with life in our modern society, assist students to acquire the skills necessary to adapt to change, gain self-understanding, and set achievable goals, and which include consideration of such matters as cognitive, affective and psycho-motor development, health, stress management, and key relationships of humans to their social and physical environment.

  **NOTE:** All Kinesiology (KIN/WHP/PE) courses are accepted in Area E (except Theory courses). However, only one unit from this area will count for General Education.

  - BIO 025 Environmental Biology
  - BUS 061 Business and Society
  - CHD 002 Child, Family and Community
  - CHD 013 Teaching Children in a Diverse Society
  - CHL 010 Community Health Problems
  - COM 004 Small Group Communication
  - COM 008 Interpersonal Communication
  - COM 012 Introduction to Intercultural Communication
  - COU 012 Careers and Life Styles
  - COU 012A Careers and Life Styles (1)
  - COU 017 Transfer Success and Life Transitions
  - COU 023 Becoming a Master Student-Athlete (2)
  - COU 055 Valuing Diversity
  - GLB 001 Global Perspectives
  - GLB 002 Global Issues
  - KIN 078 Introduction to Kinesiology
  - LIB 010 Information Competency (1)
  - LIB 010H Information Competency (1)
  - NTR 015 Human Nutrition
  - NTR 040 Nutrition and Disease
  - NTR 052 Nutrition for Children
  - PSY 012 Human Growth and Development
  - PSY 025 Introduction to Abnormal Psychology
  - PSY 030 Psychology of Addiction and Substance Abuse
  - PSY 045 Human Sexuality
  - SOC 002, 002H Social Problems
  - SOC 021 Sociology of Minorities in the U.S.
  - SOC 040 Marriage and Family
  - SOC 045 Human Sexuality
  - HOC 006 Health and Lifestyle
  - KIN 079 Lifetme Fitness
  - LIB 010 Information Competency (1)
  - NTR 015 Human Nutrition
  - NTR 052 Nutrition for Children
  - PSY 012 Human Growth and Development
  - PSY 025 Introduction to Abnormal Psychology
  - PSY 030 Psychology of Addiction and Substance Abuse
  - PSY 045 Human Sexuality
  - SOC 002, 002H Social Problems
  - SOC 021 Sociology of Minorities in the U.S.
  - SOC 040 Marriage and Family
  - SOC 045 Human Sexuality
  - SOC 060 Community and the Justice System

**AREA F — CULTURE, DIVERSITY AND EQUITY — 0-3 semester/4 quarter units (FOR STUDENTS WHO BEGIN FALL 2019 OR LATER)**

These courses are designed to provide students with the analytical skills needed to develop critical, reflective and equitable perspectives on similarities and differences within cultures and societies, and to prepare them to function, thrive and provide leadership in today’s multicultural and multiethnic world. Select one course from any of the above areas that is marked with the # sign. Courses in this area will “double-count” to meet other GE requirements.

**Notes:** Not all courses that satisfy the Associate’s Degree requirements satisfy transfer requirements. Please visit www.ASINT.org or the Counseling Office for transfer requirements.

MC Office of Articulation 011020
Low-Beginning ESL Certificate of Competency (Noncredit)

The program in Low-Beginning ESL offers students the opportunity to gain the English language skills they need for basic communication at home, school, and work. This includes listening, speaking, pronunciation, reading, grammar, writing skills. This program prepares students to enter ESL courses at the high beginning level.

Program Learning Outcomes:
• Students will demonstrate the reading, vocabulary, grammar, writing, listening, and speaking skills necessary to succeed in the beginning level ESL courses.

Career/Transfer Opportunities:
A familiarity with spoken and written English at the beginning level is required in order to improve employability or to succeed in ESL courses at the beginning level.

*Federal Financial aid may not apply to this certificate program. Consult financial aid office for more information.
NON CREDIT ENGLISH AS A SECOND LANGUAGE (ESL)
esl.missioncollege.edu

High-Beginning ESL Certificate of Competency (Noncredit)
The High-Beginning English as a Second Language Program equips students with listening, speaking, reading, writing, and study skills for success in the first level of the college’s credit ESL program.

Program Learning Outcomes:
- Students will demonstrate the listening, speaking, reading, writing, and study skills necessary for success in the 940-level credit ESL program.

Career/Transfer Opportunities:
With the ability to speak and write English at the high-beginning level, students can improve their employability, enter the Mission College credit ESL courses, and explore pathways to higher education.

*Federal Financial aid may not apply to this certificate program. Consult financial aid office for more information.

Students must complete the following courses:

<table>
<thead>
<tr>
<th>Courses Required</th>
<th>Units/ Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCE 931 High Beginning ESL Listening and Speaking AND</td>
<td>0.0 / 72.0</td>
</tr>
<tr>
<td>NCE 932 High Beginning Grammar and Writing AND</td>
<td>0.0 / 72.0</td>
</tr>
<tr>
<td>NCE 933 High Beginning Reading and Vocabulary AND</td>
<td>0.0 / 72.0</td>
</tr>
<tr>
<td>NCE 934 Bridge to ESL College Success</td>
<td>0.0 / 32.0</td>
</tr>
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</table>

Total Required Units: 0.0
Total Required Hours: 320
Non Credit English as a Second Language (ESL)
esl.missioncollege.edu

Beginning ESL Certificate of Competency (Noncredit)

The program in Beginning ESL equips students with the Basic English language skills they need in order to reach personal goals, improve employability, or enter into ESL courses at the high beginning level. This includes listening, speaking, pronunciation, reading, grammar, writing skills, and study skills, as well as the computer skills needed to access and succeed in using 21st century course materials.

Program Learning Outcomes:
• Students will demonstrate the reading, vocabulary, grammar, writing, listening, pronunciation, and speaking skills necessary to succeed in the ESL high-beginning level courses.

Career/Transfer Opportunities:
A familiarity with spoken and written English at the beginning level is required in order to improve employability or to succeed in ESL courses at the high beginning level.

*Federal Financial aid may not apply to this certificate program. Consult financial aid office for more information.
English for Childcare Certificate of Competency (Noncredit)

This program in English for Child Care equips students with essential English language skills they need in order to communicate at the low-intermediate level with and about children. This includes listening, speaking, reading, and writing skills as well as parenting and childcare skills.

Program Learning Outcomes:
- Students will respond adequately to spoken language appropriate for mid-beginning to intermediate level learners and use common concrete vocabulary to speak about and understand topics related to young children and their care.
- Students will read dialogs, stories, and articles suitable for the level and will write simple sentences and paragraphs using vocabulary common in this context.

Career/Transfer Opportunities:
A familiarity with spoken and written English at the low-intermediate level is required in order to improve employability or to enter into English for Child Development courses.

*Federal Financial aid may not apply to this certificate program. Consult financial aid office for more information.

Students must complete the following courses:

<table>
<thead>
<tr>
<th>Courses Required:</th>
<th>Units/ Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCE 920EC ESL for Child Care: Intro AND</td>
<td>0.0 / 32.0</td>
</tr>
<tr>
<td>NCE 930EC ESL for Child Care: Health and Safety AND</td>
<td>0.0 / 64.0</td>
</tr>
<tr>
<td>NCE 940EC ESL for Child Care: Ages and States</td>
<td>0.0 / 64.0</td>
</tr>
</tbody>
</table>

Total Required Units: 0.0
Total Required Hours: 160
Beginning Computer Skills Certificate of Competency (Noncredit)
This noncredit CDCP program teaches students basic computer skills needed for today’s workforce. This includes touch keyboarding, searching the Internet, using application software and sending emails.

Program Learning Outcomes:
• Using touch keyboarding, students will use application software and the Internet to search a subject, create a document, and send an email.

Career/Transfer Opportunities:
Students who complete this program will be able to carry out simple computer operations required of many entry-level jobs in business and technology.

*Federal Financial aid may not apply to this certificate program. Consult financial aid office for more information.

Students must complete the following courses:

<table>
<thead>
<tr>
<th>Courses Required</th>
<th>Units/ Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 100 Learning the Keyboard AND</td>
<td>0.00 / 54.0</td>
</tr>
<tr>
<td>CAP 101 Computers Simplified for Beginning Learners</td>
<td>0.00 / 54.0</td>
</tr>
</tbody>
</table>

Total Required Units: 0.0
Total Required Hours: 108
Basic Writing Skills (Noncredit)
This certificate indicates that the student has completed two courses focused on writing improvement and has demonstrated the ability to use a variety of sentence types and rhetorical strategies.

Program Learning Outcomes:
• Students will upon completion of the courses required for the Basic Writing Skills Certificate, students will assess into English 905 or above.

Career/Transfer Opportunities:
The ability to write accurate sentences and paragraphs is required in order to place into the credit English program, to successfully complete college-level coursework, to improve employment skills, and/or to reach personal goals.

Students must complete the following courses:

<table>
<thead>
<tr>
<th>Courses Required</th>
<th>Units/ Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCB 901 Strategies to Improve Writing</td>
<td>0.00 / 21.0</td>
</tr>
<tr>
<td>NCB 902 Strategies to Improve Writing</td>
<td>0.00 / 21.0</td>
</tr>
</tbody>
</table>

Total Required Units: 0.0
Total Required Hours: 42
HEALTH OCCUPATIONS (HOC)
nursing.missioncollege.edu

Associate in Science Registered Nursing (LVN to RN)

The Associate Degree (LVN-to-RN) Nursing curriculum is approved through the California Board of Registered Nursing (BRN) and is designed to prepare students to take the National Council Licensure Examination-Registered Nursing (NCLEX-RN). Upon successful completion of the NCLEX-RN examination, the student becomes a Registered Nurse (R.N.).

Program Learning Outcomes:
- Students will demonstrate skills required for entry level practice.
- Students will demonstrate the use of theoretical and clinical skills during the performance of patient care to prepare for employment.
- Students will successfully pass the courses required to meet eligibility requirements for licensure and/or certification examination.

Career/Transfer Opportunities:
Employment opportunities following the acquisition of the license include hospitals, clinics, home-care, and community centers.

Admission to the LVN-to-RN Program

The Nursing program is limited in the number of students it can admit each year. Applicants are cautioned that satisfaction of the prerequisite requirements qualifies them only for consideration for admission to the program. There is a selection procedure which assists us to select qualified applicants.

Prerequisite Requirements for Admission to the LVN-to-RN Program

1. High school graduate or equivalent
2. Proof of active LVN license (copy)
3. Minimum cumulative GPA of 2.5 for all college coursework
4. Satisfactory score on the Test of Essential Academic Skills (TEAS)
5. Completion of the LVN-to-RN Course prerequisites listed below (18 units):
   - Human Anatomy (one, 5-unit semester course or equivalent, e.g. BIO 047)
   - Human Physiology (one, 5-unit semester course or equivalent, e.g. BIO 048)
   - Microbiology (one, 5-unit semester course or equivalent, e.g. BIO 004)
   - English Composition (ENG 001A or equivalent with minimum grade of “C”)

NOTE: Applicants must have a minimum overall college GPA of 2.5 and no less than 2.5 GPA for Human Anatomy, Human Physiology, and Microbiology combined, with no grade less than a “C” for each course and no more than one repetition for any of the three courses.

LVN-RN Program Requirements following Admission

Following admission to the program, the following requirements must be met:
- A Physical Exam documented on the Mission College Health Appraisal form, which considers the student free from communicable disease and ability to function in a hospital setting.
- Proof of Immunity to Rubeola, Mumps, Rubella, Hepatitis B, Varicella.
- Evidence of physical and emotional fitness upon admission and throughout the program is expected and is subject to the medical opinion of the college physician.
- Current Cardiopulmonary Resuscitation certification, CPR for Health Care Provider or CPR for Professional Rescuer.
- Criminal background check. If you have been convicted of any offense other than a minor traffic violation, you may not qualify to be licensed as a registered nurse. Each case is reviewed and determined by the California Board of Registered Nursing. The Board considers the nature and severity of the offense, subsequent acts or crimes, compliance with the sanctions, and evidence of rehabilitation. (www.rn.ca.gov)

LVN-to-RN Program Course Requirements

After completion of the Role Transition Courses (HOC 050 and 050A) the LVN-to-RN program consists of two additional semesters. Classroom instruction is offered concurrently with clinical experience. The Curriculum has been organized under the standards mandated by the State of California Board of Registered Nursing.

General Education course requirements mandated by the Board of Registered Nursing:* The following courses must be taken prior to the last semester of the LVN to RN program. These courses are necessary to be eligible to take the NCLEX to become an RN.

- General Psychology (PSY 001) or Human Psychology (PSY 012) or equivalent
- Public Speaking (COM 001 or equivalent)
- Intermediate Algebra (MAT 000C) or Statistics (MAT 010) or equivalent

Additional Mission College General Education course requirements:* The following courses are necessary for the Associate Degree and must be completed prior to graduation.

- U.S. History (HIS 017A) or American Government (POL 001) or equivalent
- Arts and Humanities (3 units)

* It is highly recommended that students complete all general-education coursework prior to entry into the LVN to RN program.
ACC 001A  FINANCIAL ACCOUNTING  4.0 units
Total Lecture: 72 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: University of California, California State University
This is the study of accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and statement analysis. Included are issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics. This course may be offered via distance learning. This course is approved for credit by exam. Grade only. C-ID # ACCT 110.

ACC 001B  MANAGERIAL ACCOUNTING  4.0 units
Total Lecture: 72 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: ACC 001A
Acceptable for credit: University of California, California State University
This is the study of how managers use accounting information in decision-making, planning, directing operations and controlling. The focus is on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis. Included are issues relating to cost systems, cost control, profit planning, and performance analysis in manufacturing and service environments. This course may be offered via distance learning. Grade only. C-ID # ACCT 120.

ACC 023  Small Business Accounting  3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University
This course is designed as a non-theoretical, practical approach to accounting with special emphasis on accounting for the smaller business establishments including the basic bookkeeping cycle, petty cash, bank reconciliations, and payroll accounting. This course may be offered via distance learning. Pass/No Pass Option.

ACC 040  INTRODUCTION TO PERSONAL FINANCIAL PLANNING  1.0 unit
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course introduces the major areas of personal financial planning (insurance, investment, tax, retirement, and estate). Income statements, balance sheets and budgets are introduced, and students prepare their own personal budgets and statements of net worth. The time value of money and its importance in the financial planning process is stressed. This course may also be offered via distance learning. Pass/No Pass Option.

ACC 041  INSURANCE PLANNING  1.0 unit
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course introduces fundamental insurance concepts, then uses these concepts to determine insurance needs. Life, health, disability, property and liability insurance are studied. Students prepare their own personal insurance plans. This course may be offered via distance learning. Pass/No Pass Option.

ACC 042  INVESTMENT PLANNING  1.0 unit
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course introduces fundamental investment concepts such as risk, return, diversification, and how financial markets work. The course covers common stock, fixed-income securities, mutual funds and other investments. Students prepare their own personal statement of net worth and use asset allocation to design an investment portfolio. This course may also be offered via distance learning. Pass/No Pass Option.

ACC 043  TAX PLANNING  1.0 unit
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course covers calculation of the federal income tax and strategies to help save or defer taxes. Students calculate their own federal income tax liability, then use at least one method to plan a reduction in taxes for next year. This course may be offered via distance learning. Pass/No Pass Option.

ACC 044  RETIREMENT PLANNING  1.0 unit
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course covers company pension plans, other company retirement plans, individual retirement plans and social security benefits. Students use a retirement savings worksheet to estimate their own savings needs for retirement using data from their personal budget and personal statement of net worth. This course may also be offered via distance learning. Pass/No Pass Option.

ACC 045  ESTATE PLANNING  1.0 unit
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course covers estate planning techniques and terminology such as wills, probate, trusts, contractual transfers, gift tax and estate tax. Methods of holding title to property, e.g., joint tenancy with right of survivorship, are also discussed. This course may be offered via distance learning. Pass/No Pass Option.

ACC 051A  TAXATION OF INDIVIDUALS  4.0 units
Total Lecture: 72 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course covers Federal and California income tax laws and preparation as related to individuals and small business entities. Topics include income tax theory, law, and preparation of common tax forms for individuals. This course is certified by the California Tax Education Council as fulfilling the 60-hour qualifying education requirement imposed by the State of California for becoming a Registered Tax Preparer. This course may be offered via distance learning. Grade Only.

ACC 051B  TAXATION OF BUSINESS ENTITIES  3.0 units
Total Lecture: 54 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Advisory: ACC 051A
Acceptable for credit: California State University
The course, through problems and case studies, develops a basic understanding of the taxation principles applied to partnerships, corporations, estates and trusts with an emphasis on tax research and written communication skills. This course may be offered via distance learning. Grade only.
ACC 052  PAYROLL AND BUSINESS TAX ACCOUNTING  3.0 units
Total Lecture: 54 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: ACC 001A
Acceptable for credit: California State University
This course offers a thorough study of payroll preparation, payroll taxes, sales and use taxes, and property taxes. Basic payroll procedures used in business are stressed. Various manual and automated methods of payroll preparation are presented. This course may be offered via distance learning. Grade only.

ACC 053A  VOLUNTEER INCOME TAX ASSISTANCE (VITA) I  3.0 units
Total Lecture: 54 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This is the first course in a sequence of three courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Mission College. This course covers Federal and California tax theories and laws appropriate for the current tax year. Students apply their knowledge by taking the IRS exams for VITA volunteers. Upon successful completion of the IRS VITA Basic and Intermediate exams, the students are able to assist low-income individuals and families with tax return preparation through the VITA program for the current year. This course may be offered via distance learning. Pass/No Pass Option.

ACC 053B  VOLUNTEER INCOME TAX ASSISTANCE (VITA) II  1.0 units
Total Lecture: 9 hours, Total Lab: 27 hours
Prerequisite: ACC 053A
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This is the second course in a sequence of three courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Mission College. This course allows students who have successfully passed ACC 053A to apply their tax knowledge by assisting low-income individuals and families with their tax preparation through the VITA program for the current year. In this course, students learn to research current tax issues, use the TaxWise software to accurately prepare individual federal and state income tax returns within the scope of the VITA program. Students also learn how to work within a cooperative and quality controlled environment and develop their communication skills through taxpayer interviews and explanation of tax return results. Pass/No Pass Only.

ACC 053C  VOLUNTEER INCOME TAX ASSISTANCE (VITA) III  1.0 units
Total Lecture: 9 hours, Total Lab: 27 hours
Prerequisite: ACC 053B
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This is the third course in a sequence of three courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Mission College. This course allows students who have successfully passed ACC 053B to work on advanced tax situations and take part in running the tax center for the current year. In this course, students cover advanced tax topics and develop the skills necessary in running a tax center including site organization, quality control procedures, and providing guidance to both taxpayers and tax preparers. Pass/No Pass Option.

ACC 057A  COST ACCOUNTING  4.0 units
Total Lecture: 72 hours
Advisory: ACC 001B
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
The course provides a thorough presentation of cost accounting terminology and concepts, and develops a basic facility in cost accounting techniques and systems. Emphasis is placed on the use of cost accounting data rather than data accumulation. The course covers job order costing, process costing, standard costing, activity-based costing, budgeting, flexible budgeting, cost volume profit analysis, incremental and relevant costing, product pricing, the balanced scorecard, capital budgeting, and management accounting ethics. This course may be offered via distance learning. Grade only.

ACC 058A  INTERMEDIATE ACCOUNTING I  4.0 units
Total Lecture: 72 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: ACC 001A
Acceptable for credit: California State University
This course is a review of fundamental accounting processes, techniques and principles including control and theory of accounting for assets, correction of prior years’ earnings, and measurement and determination of income. Current standards and pronouncements are presented. This course may be offered via distance learning. Grade only.

ACC 058B  INTERMEDIATE ACCOUNTING II  4.0 units
Total Lecture: 72 hours
Advisory: ACC 058A
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: ACC 001A
Acceptable for credit: California State University
This course provides a comprehensive study of liabilities, formation and changes in stockholders’ equity, statement of cash flows, pension plans, leases, earnings per share, accounting for income taxes, and accounting changes and corrections. Current standards and pronouncements are presented. Financial statement analysis also is reviewed. This course may be offered via distance learning. Grade only.

ACC 070  ETHICS IN ACCOUNTING  3.0 units
Total Lecture: 54 hours
Advisory: ACC 001A
Acceptable for credit: California State University
This course involves the study of ethical problems which arise within the contexts of accounting and corporate management. Topics include major ethical theories and the professional code of conduct for accountants, auditors, and tax preparers. The focus is on ethical issues in corporate case studies such as Enron, Worldcom, Sunbeam, and Madoff. This course may be offered via distance learning. Pass/No Pass Option.

ACC 075  CLOUD COMPUTING AND ANALYTICS IN ACCOUNTING  4.0 units
Total Lecture: 72 hours
Prerequisite: ACC 001A
Acceptable for credit: California State University
Students will learn cloud accounting and analytics theory through hands-on exercises using SAP Business ByDesign. SAP (Systems, Applications, & Products in Data Processing) is the number one Enterprise Resource Planning (ERP) software vendor in the world. Its ByDesign system is a cloud-based ERP solution for small-to-medium enterprises. Students will also use Excel and Power BI for data analytics and visualization capabilities. This course is useful as preparation for higher level business, accounting, and/or analytics courses, for careers in accounting and finance, or for work as an analyst, data scientist, or consultant. Grade only. This course may be offered via distance learning.
BIO 001A GENERAL BIOLOGY: CELLS 5.0 units
Total Lecture: 54 hours. Total Lab: 108 hours
Prerequisite: CHM 001A OR CHM 001AH AND
Prerequisite: MAT 000C AND BIO 010, OR
Prerequisite: CHM 001A OR CHM 001AH AND
Prerequisite: MAT 000C AND BIO 011
Acceptable for credit: University of California, California State University
This course is a comprehensive introduction to cell and molecular biology, and is
designed for students pursuing degrees in biology or professional programs such
as medicine or pharmacy. Topics addressed in lecture and lab include biochemistry,
the structure and function of prokaryotic and eukaryotic cells, cellular metabolism,
and prokaryotic and eukaryotic gene expression and regulation. This course may
be offered via distance learning. Grade only. CSUGE: B2, B3; IGETC: 5B, 5C.

BIO 001AH GENERAL BIOLOGY: CELLS – HONORS 5.0 Units
Total Lecture: 54 hours. Total Lab: 108 hours
Advisory: CHM 001B
Prerequisite: CHM 001A OR CHM 001AH AND
Prerequisite: MAT 000C AND BIO 010, OR
Prerequisite: CHM 001A OR CHM 001AH AND
Prerequisite: MAT 000C AND BIO 011
Acceptable for Credit: California State University
This honors course is a comprehensive introduction to cell and molecular biology,
and is designed for students pursuing degrees in biology or professional programs
such as medicine or pharmacy. Topics addressed in lecture and lab include biochemistry,
the structure and function of prokaryotic and eukaryotic cells, cellular metabolism,
and prokaryotic and eukaryotic gene expression and regulation. Students may not receive credit for both BIO 001A and BIO 001AH. Enrollment in the
Honors Transfer Project is required. This course may be offered via distance
learning. Grade only. CSUGE: B2, B3.

BIO 004 MICROBIOLOGY 5.0 units
Total Lecture: 54 hours. Total Lab: 108 hours
Prerequisite: BIO 011 AND CHM 030A OR
Prerequisite: BIO 011 AND CHM 030A OR
Prerequisite: BIO 011 AND CHM 060 OR
Prerequisite: BIO 001A AND CHM 010A OR
Prerequisite: BIO 001A AND CHM 030A OR
Prerequisite: BIO 001A AND CHM 060 OR
Prerequisite: BIO 010 AND BIO 010L AND CHM 010A OR
Prerequisite: BIO 010 AND BIO 010L AND CHM 030A OR
Prerequisite: BIO 010 AND BIO 010L AND CHM 060 OR
Prerequisite: BIO 022 AND CHM 001A OR
Prerequisite: BIO 022 AND CHM 030A OR
Prerequisite: BIO 022 AND CHM 060
Acceptable for credit: University of California, California State University
This survey course in microbiology is intended for nursing and other health-science
majors. Lecture topics include the morphology and physiology of the major groups
of microorganisms, bacterial and viral genetics, mechanisms of infection and
disease, and the human immune response to infection. Laboratory activities focus
on techniques employed in the culture and identification of bacteria of medical
importance. This course may be offered via distance learning. Grade only. CSUGE:
B2, B3; IGETC: 5B, 5C.

BIO 014H INTRODUCTORY NEUROSCIENCE HONORS 3.0 Units
Total Lecture: 54 hours
Advisory: ENG 001 A AND REA 054 or
Advisory: ENG 001AX AND REA 054
Acceptable for credit: University of California, California State University
This honors course is an introduction to the organization and functions of the
nervous system. The physiology of the brain and senses are discussed. Emotions, sleep, language, attention, memory and a survey of nervous system
disorders are explored. Pass/No Pass Option

BIO 017 GENETICS AND SOCIETY 3.0 units
Total Lecture: 54 hours
Anti-Requisite: BIO 017H
Acceptable for credit: University of California, California State University
This course is a broad survey of genetics, with a focus on the societal impacts of
topics in genetics such as human genetic disease, biotechnology, reproductive
technologies, and evolution. It is designed for the general education student.
This course may be offered via distance learning. Pass/No Pass Option. CSUGE: B2; IGETC: 5B.

BIO 017H GENETICS AND SOCIETY - HONORS 3.0 units
Total Lecture: 54 hours
Anti-Requisite: BIO 017
Acceptable for credit: University of California, California State University
This course is a broad survey of genetics, with a focus on the societal impacts of
topics in genetics such as human genetic disease, biotechnology, reproductive
technologies, and evolution. The honors component involves an in-depth
analysis of specific topics, using current information from research journals.
Students cannot get credit for both BIO 017 and BIO 017H. Enrollment in the
Honors Transfer Project is required. This course may be offered via distance
learning. Pass/No Pass Option. CSUGE: B2; IGETC: 5B.

BIO 022 ANATOMY AND PHYSIOLOGY FOR ALLIED HEALTH WORKERS 4.0 units
Total Lecture: 54 hours, Total Lab: 54 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course is an overview of the normal structure and function of the human
body and is designed to provide a foundation for the study of disease and
dysfunction in the clinical setting. Laboratory work includes dissection of
preserved materials. BIO 022 is designed to meet the state board requirements
for the vocational nursing and psychiatric technician programs. Grade only.
CSUGE: B2, B3.

BIO 031L TROPICAL ECOLOGY FIELD STUDIES 1.0 unit
Total Arranged Lab: 54 hours
Acceptable for credit: California State University
In this introductory level laboratory class, students carry out research methods
that ecologists use to observe and investigate tropical ecosystems. This course includes a field trip to Costa Rica. Students who take this course are
not required to complete BIO 30, the lecture course in Tropical Ecology. Pass/ No Pass Option.
| COURSES |
|-----------------|-----------------|
| **BIO 047** HUMAN ANATOMY 5.0 units | **BUS 052** FUNDAMENTALS OF FINANCIAL INVESTING 3.0 units |
| Total Lecture: 54 hours, Total Lab: 108 hours | Total Lecture: 54 hours |
| Advisory: Concurrent enrollment in BIO 047S is recommended for all students. | Advisory: MAT 903 or High School Algebra I, or equivalent |
| Prerequisite: BIO 010 AND BIO 010L OR | Acceptable for credit: California State University |
| Prerequisite: BIO 011 OR | This course provides students with the fundamentals to make sound financial investment decisions. Study involves the investment environment, the risks and returns objectives consistent with an associated with different types of financial investments, and the establishment of investment individual’s characteristics, capacities and restrictions. Other topics include the participants in the investment process including organization issuing securities, and the laws and regulations covering their activities. Class projects cover techniques of investment analysis, timing, decision making, investment planning and management. This course may also be offered via distance learning. Pass/No Pass Option. C-ID # BUS 115. |
| Prerequisite: BIO 022 OR | |
| Prerequisite: BIO 001A OR | |
| Prerequisite: BIO 001AH | |
| Acceptable for credit: University of California, California State University | |
| This course is an in-depth study of the microscopic and gross anatomical structure of the human body, including some corresponding pathology. It is designed to meet the prerequisite for programs in nursing, physical therapy, kinesiology, occupational therapy, etc. Laboratory work includes: examination of models, histological specimens, and animal specimens. Grade only. C-ID # BIOL 110B. CSUGE: B2, B3; IGETC: 5B, 5C. |
| **BIO 048** HUMAN PHYSIOLOGY 5.0 units | **BUS 064B** BUSINESS MATH 4.0 units |
| Total Lecture: 54 hours, Total Lab: 108 hours | (replaces BUS 064) |
| Prerequisite: BIO 047 AND CHM 001A OR CHM 001AH OR | Total Lecture: 72 hours |
| Prerequisite: BIO 047 AND CHM 030A OR | Advisory: MAT 903 or High School Algebra I, or equivalent |
| Prerequisite: BIO 047 AND CHM 060 | Acceptable for credit: California State University |
| Advisory: MAT 000C or High School Algebra II, or equivalent | This course is designed for business majors to review the fundamental mathematical principles through lectures and individual operation of electronic calculators. This course will emphasize methods of problem analysis, interpretation and the solving of common business calculation problems such as percentage, trade and cash discounts, interest, time value of money, compounding, depreciation and discounting notes. This course is recommended for all business majors. This course may also be offered via distance learning. Pass/No Pass Option. |
| Acceptable for credit: University of California, California State University | |
| This course provides students with a basic understanding of the physiological mechanisms underlying body function in order to provide a foundation for more in-depth study and practical application. With an emphasis on cause and effect, details of the chemical and cellular basis for the workings of the nervous, muscular, cardiovascular, respiratory, renal and digestive systems are emphasized. Laboratory investigations of physiological processes familiarize students with scientific analysis and research techniques. Grade only. C-ID # BIOL 120B. CSUGE: B2; IGETC: 5B. |
| **BIO 048H** HUMAN PHYSIOLOGY - HONORS 5.0 units | **CHEMISTRY (CHM)** |
| Total Lecture: 54 hours, Total Lab: 108 hours | **CHM 001A** GENERAL CHEMISTRY 5.0 units |
| Prerequisite: BIO 047 AND CHM 001A OR CHM 001AH OR | Total Lecture: 54 hours, Total Lab: 108 hours |
| Prerequisite: BIO 047 AND CHM 030A OR | Prerequisite: CHM 002 AND MAT 000C |
| Prerequisite: BIO 047 AND CHM 060 | Acceptable for credit: University of California, California State University |
| Advisory: MAT 000C or High School Algebra II, or equivalent | Chemistry 001A is the first of a two-semester sequence in general inorganic chemistry designed for science majors and those seeking entry to medicine or other professional programs in the health sciences. Topics include atomic structure, theories of chemical bonding, nomenclature, stoichiometry, thermochemistry, gas laws, and the properties of solids, liquids, gases, and solutions. Students cannot get credit for both CHM 001A and CHM 001AH. Enrollment in the Honors Transfer Project is required. This course may also be offered via distance learning. Grade only. C-ID # CHEM 110, C-ID 120S. CSUGE: B1, B3; IGETC: 5A, 5C. |
| Acceptable for credit: University of California, California State University | |
| This course provides students with a basic understanding of the physiological mechanisms underlying body function in order to provide a foundation for more in-depth study and practical application. With an emphasis on cause and effect, details of the chemical and cellular basis for the workings of the nervous, muscular, cardiovascular, respiratory, renal and digestive systems are emphasized. Laboratory investigations of physiological processes familiarize students with scientific analysis and research techniques. Grade only. C-ID # BIOL 120B. CSUGE: B2, B3; IGETC: 5B, 5C. |
| **BUS 010** GLOBAL BUSINESS 3.0 units | **CHM 001AH** GENERAL CHEMISTRY I - HONORS 5.0 units |
| Total Lecture: 54 hours | Total Lecture: 54 hours, Total Lab: 108 hours |
| Advisory: MAT 903 or High School Algebra I, or equivalent | Prerequisite: Prerequisite: CHM 002 AND MAT 000C |
| Acceptable for credit: California State University | Acceptable for credit: University of California, California State University |
| This course provides a comprehensive overview of global business including international management, finance, law, global strategy and marketing. Emphasis is on the firm in the global competitive context, decisions to enter markets, how to compete in global markets, and how to develop and implement a global strategy. This course may also be offered via distance learning. Pass/ No Pass Option. | Chemistry 001AH is the honors version of the first of a two-semester sequence in general inorganic chemistry designed for science majors and those seeking entry to medicine and other professional programs in the health sciences. Topics include atomic structure, stoichiometry, chemical bonding, thermochemistry, chemical reactivity, and the properties of solids, liquids, gases, and solutions. Students cannot get credit for both CHM 001A and CHM 001AH. Enrollment in the Honors Transfer Project is required. This course may also be offered via distance learning. Grade only. C-ID # CHEM 120S. CSUGE: B1, B3; IGETC: 5A, 5C. |
| **BUS 052** FUNDAMENTALS OF | |
| FINANCIAL INVESTING | **CHM 002** INTRODUCTORY CHEMISTRY 3.0 units |
| 3.0 units | Total Lecture: 54 hours |
| | Prerequisite: MAT 000C OR High School Algebra II, or equivalent |
| | Acceptable for credit: University of California, California State University |
| | This course is designed specifically to prepare students for Chemistry 001A (general chemistry). It introduces the principles of atomic structure, gas laws, solutions, and acid-base theories. There is heavy emphasis on problem solving, chemical formulas, equations and quantity relationships. Grade only. C-ID # CHEM 101. CSUGE: B1; IGETC: 5A. |
CHM 030A  FUNDAMENTALS OF CHEMISTRY  4.0 units  
**Total Lecture:** 54 hours, **Total Lab:** 54 hours  
**Prerequisite:** MAT 903 OR High School Algebra I, or equivalent  
**Acceptable for credit:** University of California, California State University  
CHM 030A is an introductory chemistry course designed for nursing and allied-health majors. Topics include dimensional analysis, inorganic nomenclature, atomic and molecular structure, bonding, chemical reactions, gas laws, solutions, acids-bases, oxidation-reduction, equilibrium and electrolyte systems. This course is not recommended for students majoring in biology or chemistry or for those seeking entry to professional programs in medicine or pharmacy. This course may also be offered via distance learning. Grade only. CSUGE: B1, B3; IGETC: 5A, 5C.

CHM 060  SURVEY OF GENERAL, ORGANIC, AND BIOLOGICAL CHEMISTRY  4.0 units  
**Total Lecture:** 54 hours, **Total Lab:** 54 hours  
**Prerequisite:** MAT 903 OR High School Algebra I, or equivalent OR **Prerequisite:** MAT 903M  
**Acceptable for credit:** California State University  
Topics include atomic structure, chemical bonding, and acid-base chemistry; organic chemistry nomenclature, functional groups, stereochemistry, and classes of organic reactions; an introduction to the structure and function of biological macromolecules (carbohydrates, lipids, DNA/RNA, and proteins) and an overview of metabolism. This course may be offered via distance learning. Grade Only. CSUGE: B1, B3.

COMMUNICATION STUDIES (COM)

COM 008  INTERPERSONAL COMMUNICATION  3.0 units  
**Total Lecture:** 54 hours  
**Acceptable for credit:** California State University  
This course involves practical communication skills useful for communicating in one's personal life as well as in working relationships. Course content emphasizes communication skills and theory important in improving interpersonal relationships. Topic areas include listening, nonverbal communication, assertiveness, self-awareness, intercultural communication and conflict resolution. This course may be offered via distance learning. Pass/No Pass Option. C-ID # COMM 130. CSUGE: E.

COMPUTER APPLICATIONS (CAP)

CAP 100  LEARNING THE KEYBOARD  NONCREDIT  
**Total:** 54 hours  
This noncredit course is designed for anyone who wants to learn the "touch" system of keyboarding on the computer. Proper techniques of keyboarding are emphasized to develop speed and accuracy. Satisfactory Progress.

CAP 101  COMPUTERS SIMPLIFIED FOR BEGINNING LEARNERS  NONCREDIT  
**Total:** 18 hours  
This noncredit course takes students through the basics of using a computer to perform essential tasks for workforce and academic survival. Highlights of the course include: operating system basics, applications software, e-mail basics, computer peripherals, and Internet basics. Satisfactory Progress.

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 051  INTRODUCTION TO DATA ANALYSIS  4.0 units  
**Total Lecture:** 54 hours, **Total Lab:** 54 hours  
**Advisory:** CIS 007  
**Acceptable for credit:** California State University  
This is an introductory course on data analysis. It provides a foundation for understanding data analysis principles, tools and applications. Topics include data loading and storage, data manipulation, data cleaning and preparation, data wrangling, plotting, visualization and analysis. Students will use Python programming language and Python libraries such as NumPy, Pandas, Matplotlib in the course. This course may also be offered via distance learning. Pass/No Pass Option.
**COURSES**

**MISSION COLLEGE CATALOG ADDENDUM JANUARY 2020**

**CIT 011** INTRODUCTION TO COMPUTER HARDWARE AND SOFTWARE (A+)

- **Total Lecture:** 54 hours, **Total Lab:** 54 hours
- **Advisory:** MAT 903 or High School Algebra I, or equivalent
- **Acceptable for credit:** California State University

This course covers the fundamentals of computer hardware and software and advanced concepts such as security, networking, mobile devices such as tablets and smartphones, client side virtualization, and the responsibilities of an IT professional. It helps students prepare for entry-level career opportunities in ICT and the CompTIA A+ certification. It also provides a learning pathway to Cisco CCNA. Hands-on lab activities are an essential element of the course. The Virtual Laptop and Virtual Desktop are stand-alone tools designed to supplement classroom learning and provide an interactive “hands-on” experience in learning environments with limited physical equipment. The use of Packet Tracer supports alignment with the new CompTIA A+ certification objectives. This course may also be offered via distance learning. Pass/No Pass Option.

**COU 005** STRATEGIES FOR SUCCESS

- **Total Lecture:** 54 hours
- **Advisory:** ENG 001A AND REA 054 OR ENG 001AX AND REA 054
- **Acceptable for credit:** University of California, California State University

This is a comprehensive course that integrates critical and creative thinking proficiency, personal growth and values, and academic study strategies. This survey course includes a study of the following topics: role of education in life, college systems, effective learning strategies, academic survival, career information, awareness of personal development and techniques of interpersonal communication.Emphasis is on the attainment of life-long success in academic, professional and personal development. This course may be offered via distance learning. Pass/No Pass Option. CSUGE: E.

**COU 007** UNIVERSITY TRANSFER PLANNING

- **Total Lecture:** 18 hours
- **Advisory:** ENG 001A AND REA 054 OR ENG 001AX AND REA 054
- **Acceptable for credit:** University of California, California State University

This course provides in-depth information and assistance with the transfer process to four-year colleges/universities. It is designed to enable students to actively participate in planning their educational and career goals by providing information about the process and requirements for transferring from a community college to a university. Lower division major and general education requirements, college/university selection, admission procedures, state-wide transfer policies, application deadlines, financial aid and scholarship information are covered. Students have the opportunity to broaden their perspectives by examining the changes in the education policies and regulations that impact society and may influence their transfer planning and admission to a university. Use of college catalogs, printed directories and the Internet are necessary to complete assignments. Students cannot get credit for both COU 007 and COU 007H. Enrollment in the Honors Transfer Project is required. This course may also be offered via distance learning. Pass/No Pass Option.

**COU 012A** CAREERS AND LIFESTYLES

- **Total Lecture:** 18 hours
- **Advisory:** ENG 001A AND REA 054 OR ENG 001AX AND REA 054
- **Acceptable for credit:** California State University

This course assists students in exploring individual interests through the use of a variety of career assessments. The focus is on career, personal and educational awareness as they relate to the process of career choice and major selection. Students identify personal interests, values, abilities and skills and use self-assessment instruments to help them identify career options. Materials fee required. This course may be offered via distance learning. Pass/No Pass Option.

**COU 012C** CAREERS AND LIFESTYLES

- **Total Lecture:** 18 hours
- **Advisory:** ENG 001A AND REA 054 OR ENG 001AX AND REA 054

This course assists students in the area of job search skills. Students learn to market themselves using resume writing and interview skills, and to identify different types of skills and how they relate to job requirements. Occupational trends are examined. This course may also be offered via distance learning. This course may be offered via distance learning. Pass/No Pass Option.

**COU 017** TRANSFER SUCCESS AND LIFE TRANSITIONS

- **Total Lecture:** 54 hours
- **Advisory:** ENG 001A
- **Acceptable for credit:** University of California, California State University

Through the context of transferring from a community college to a university, this course introduces students to appropriate life skills that can help them achieve greater success in their educational, personal, and professional lives. The course is designed specifically for students interested in successfully navigating the process of transferring to a college or university. Topics include: self-awareness; goal setting; motivation; learning styles; critical thinking; decision making; degree options; university systems and transfer programs; education planning; time management and procrastination; money management and financial aid; effective communication; unique transitional considerations for transfer students; and maintaining a healthy lifestyle. This course may be offered via distance learning. Pass/No Pass Option. CSUGE: E.

**COU 023** BECOMING A MASTER STUDENT-ATHLETE

- **Total Lecture:** 36 hours
- **Advisory:** ENG 001A AND REA 054 OR ENG 001AX AND REA 054
- **Acceptable for credit:** California State University

In this course, student-athletes learn tools for success to be applied in the classroom and in their sport. This survey course includes a study of the following topics: the role of education in life, college systems, learning strategies, academic survival, career information, and awareness of personal development and techniques of interpersonal communication. In addition, students learn how to balance academics and athletics, and how to prepare for a bright future. This course may be offered via distance learning. Pass/No Pass Option.
ENGINEERING (EGR)

EGR 010  INTRODUCTION TO ENGINEERING  4.0 units
Total Lecture: 54 hours, Total Lab: 54 hours
Advisory: MAT 903 or MAT 903M or High School Algebra I, or equivalent
Acceptable for credit: University of California, California State University
This course exposes students to the field of engineering and the various engineering disciplines. Course presents the basic skills necessary to succeed as an engineering student. The nature of engineering work and the roles of engineers are explored. The Engineering Design Process is addressed through multiple team-based projects and engineering problem-solving topics. Communication skills for technical presentations and reports are developed through practical engineering scenarios. Guest speakers from local engineering firms and tours to local companies are included. Pass/No Pass Option. C-ID#110

EGR 010H  INTRODUCTION TO ENGINEERING – HONORS  4.0 Units
Total Lecture: 54 hours, Total Lab: 54 hours
Advisory: MAT 903 or MAT 903M or High School Algebra I, or equivalent
Acceptable for Credit: California State University, University of California
This course is the honors version of Introduction to Engineering. This course exposes students to the field of engineering and the various engineering disciplines. Course presents the basic skills necessary to succeed as an engineering student. The nature of engineering work and the roles of engineers are explored. The Engineering Design Process is addressed through multiple team-based projects and engineering problem-solving topics. Communication skills for technical presentations and reports are developed through practical engineering scenarios. Guest speakers from local engineering firms and tours to local companies are included. Students may not receive credit for both EGR 010 and EGR 010H. Enrollment in the Honors Transfer Project is required. Pass/No Pass Option. C-ID#110

ECONOMICS (ECN)

ECN 001A  PRINCIPLES OF MACROECONOMICS  4.00 units
ECN 001A (replaces ECN 001A/001AL)
Total Lecture: 54 hours, Total Lab: 54 hours
Advisory: MAT 000C or High School Algebra II, or equivalent
Prerequisite: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: University of California, California State University
This course is an introduction to macroeconomic analysis. Topics include aggregate measures of economic activity, such as gross domestic product, unemployment, and inflation; market systems; macroeconomic models and their equilibria; effects of fiscal and monetary policy; economic growth; evolution of economic thought; and international economics. The course also includes an online lab component that reinforces concepts learned through deeper learning and applications, and offers additional practice with solving problems in economics. This course may be offered via distance learning. This course is approved for credit by exam. Grade only. C-ID # ECON 202. CSUGE: D; IGETC: 4.

ECN 001B  PRINCIPLES OF MICROECONOMICS  4.00 Units
ECN 001B (replaces ECN 001B/001BL)
Total Lecture: 54 hours, Total Lab: 54 hours
Advisory: MAT 000C or High School Algebra II, or equivalent
Prerequisite: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: University of California, California State University
This course is an introduction to microeconomic analysis that focuses on choices of individual economic decision makers. Topics include scarcity and resource allocation, elasticity, market equilibrium in competitive and noncompetitive market structures, consumer behavior, production decisions, income distribution, market failure, and effects of government intervention. This course includes a lab component, which provides additional practice and deeper learning and applications. This course may be offered via distance learning. This course is approved for credit by exam. Grade Only. C-ID # ECON 201. CSUGE: D; IGETC: 4.

ENGLISH (ENG)

ENG 001A  ENGLISH COMPOSITION  3.0 units
Total Lecture: 54 hours
Prerequisite: ENG 905AC OR ENG 908 OR ESL 980 OR Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Acceptable for credit: University of California, California State University
This course emphasizes the techniques of English composition with emphasis on the process of learning to write clearly and effectively and to read analytically. English 001A fulfills the English requirement for the Associate degree; this is a baccalaureate course. This course may be offered via distance learning. Pass/No Pass Option. C-ID # ENGL 100. CSUGE: A2; IGETC: 1A.

ENG 001AX  ENGLISH COMPOSITION WITH ADDITIONAL SUPPORT  5.0 units
Total Lecture: 90 hours
Prerequisite: ESL 980 OR ENG 908 OR ENG 905AC OR Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Acceptable for credit: University of California, California State University
This course introduces the techniques of collegiate English composition with emphasis on clear, effective writing and analytical reading. Students will learn to think critically about their own writing and will receive extensive support throughout the writing process. Areas of support will include close reading, textual analysis, finding and correctly incorporating credible, relevant source material, and acclimating to a college academic environment. English 1AX fulfills the English requirement for the Associate degree. This course also satisfies the composition requirement for baccalaureate degrees. This course may be offered via distance learning. Grade Only. CSUGE: A2; IGETC: 1A.

ENG 006B  SURVEY OF WORLD LITERATURE  3.0 units
Total Lecture: 54 hours
Advisory: ENG 001A OR ENG 001AX
Acceptable for credit: University of California, California State University
World Literature is the study of representative works of world literature from the seventeenth century to the present. The course emphasizes the literary and cultural significance of selected great works of Western and non-Western literary traditions, including women, minority, and ethnic literature from around the world. This course may be offered via distance learning. Pass/No Pass Option. C-ID # ENGL 145. CSUGE: C2; IGETC: 3B.

COU 055  VALUING DIVERSITY  3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University
This course addresses the complexities of interpersonal relationships among and between several cultures and ethnic groups within our society. Students examine cultural perceptions, while exploring self-concepts, values, beliefs, communication styles, religion, gender, ageism, and lifestyles in order to promote respect for differences and develop a sense of community. This course may also be offered via distance learning. Pass/No Pass Option. C-ID#110

ENG 001A  ENGLISH COMPOSITION  3.0 units
Total Lecture: 54 hours
Prerequisite: ENG 905AC OR ENG 908 OR ESL 980 OR Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Acceptable for credit: University of California, California State University
This course emphasizes the techniques of English composition with emphasis on the process of learning to write clearly and effectively and to read analytically. English 001A fulfills the English requirement for the Associate degree; this is a baccalaureate course. This course may be offered via distance learning. Pass/No Pass Option. C-ID # ENGL 100. CSUGE: A2; IGETC: 1A.

ECN 001B  PRINCIPLES OF MICROECONOMICS  4.00 Units
ECN 001B (replaces ECN 001B/001BL)
Total Lecture: 54 hours, Total Lab: 54 hours
Advisory: MAT 000C or High School Algebra II, or equivalent
Prerequisite: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: University of California, California State University
This course is an introduction to microeconomic analysis that focuses on choices of individual economic decision makers. Topics include scarcity and resource allocation, elasticity, market equilibrium in competitive and noncompetitive market structures, consumer behavior, production decisions, income distribution, market failure and effects of government intervention. This course includes a lab component, which provides additional practice and deeper learning and applications. This course may be offered via distance learning. This course is approved for credit by exam. Grade Only. C-ID # ECON 201. CSUGE: D; IGETC: 4.
ENG 905  ENGLISH FUNDAMENTALS  3.0 Units
Total Lecture: 54 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Concentration is on the writing of basic expository paragraphs and essays having grammatically correct sentences and clear organization of ideas. There are no final letter grades for the course. The course does not fulfill the English requirement for the Associate degree and is not a baccalaureate level class. Pass/No Pass Option. Non-degree applicable course.

ENG 905AC  ACCELERATED ESSAY WRITING  6.0 Units
Total Lecture: 108 hours
Prerequisite: Completion of the Mission College Assistance Tool prior to registration.
Concentration is on the writing and revision process, academic essays and introduction to research skills. The course qualifies students for English 001A. This course may be offered via distance learning. Pass/No Pass Option. Non-degree applicable course.

ENG 908  EFFECTIVE WRITING  3.0 units
Total Lecture: 54 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Concentration is on the writing process, academic essays, and introduction to research skills. This course qualifies students for English 001A. This course may be offered via distance learning. Pass/No Pass Option. Non-degree applicable course.

ENGLISH AS A SECOND LANGUAGE (ESL)

ESL 985  WRITING FOR ESL STUDENTS IN ENGLISH 001A  2.0 units
Total Lecture: 36 hours
Co-requisite: ENG 001A
This course is for students taking English 001A whose native language is not English. This course provides intensive instruction and practice in writing coherent paragraphs and essays for specific audiences. This course includes the drafting, revision, and editing processes as well as instruction in grammar, mechanics, and usage. The course focuses on the sentence patterns, grammatical structures and academic vocabulary necessary to be successful in English 001A. Pass/No Pass Option. Non-degree applicable course.

FIRE PROTECTION TECHNOLOGY (FPT)

FPT 051  FIRE PROTECTION ORGANIZATION  3.0 units
Total Lecture: 54 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course provides a general introduction to the field of Fire Protection, including: career opportunities; philosophy and history of fire protection; the organization and function of fire protection services; and a basic introduction to the chemistry and physics of fire and fire control techniques, with an introduction to fireground hazards, strategy, and tactics. This course is approved for credit by exam. Pass/No Pass Option.

FPT 052  FIRE BEHAVIOR AND COMBUSTION  3.0 units
Total Lecture: 54 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course focuses on the theory and fundamentals of how and why fires start, the spread and fire control methods; an in-depth study of fire chemistry, fire behavior and physics; fire characteristics of materials and compounds and the use of extinguishing agents and fire control techniques. This course is approved for credit by exam. Pass/No Pass Option.

FPT 054  BUILDING CONSTRUCTION FOR FIRE PROTECTION  3.0 units
Total Lecture: 54 hours
Advisory: FPT 051 and MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course provides instruction regarding: theory and fundamentals of building construction; laws, regulations and standards; the Uniform Building Code requirements for fire safety in buildings; classification of buildings by occupancy; elements of building construction and design; fire protection requirements for buildings, special occupancies and open areas. Pass/No Pass Option.

FPT 056  HAZARDOUS MATERIALS TECHNOLOGY  3.0 units
Total Lecture: 54 hours
Advisory: FPT 052 and MAT 903 or High School Algebra I, or equivalent
Acceptable for credit: California State University
This course provides an in-depth study of the following: materials presenting special problems in firefighting operations; laws and standards involved in the storage and handling of hazardous chemicals and substances; the identification of hazardous materials; and the handling procedures and practices for emergencies involving corrosive water-reactive, toxic, explosive and radio-active materials. This course is approved for credit by exam. Pass/No Pass Option.

FPT 065L  EMERGENCY MEDICAL TECHNICIAN LAB  1.5 units
Total Lab: 81 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: HOC 002, American Heart Association BLS for the Healthcare Provider or equivalent
Corequisite: FPT 065 and FPT 065C
Acceptable for credit: California State University
The purpose of this EMT-I training course is to prepare individuals to render prehospital basic life support at the scene of an emergency, during transport of the sick and injured, or during interfacility transfer within an organized EMS system. This course meets all the skills laboratory requirements at the mandated instructor: student ratio of 1:10 for certification as an Emergency Medical Technician –I as specified in the regulations approved by the State of California Emergency Medical Services Authority in April, 2013. Students must successfully complete concurrently FPT 065 and FPT 065C to be eligible for certification. Pass/No Pass Option.

FPT 180  EMT I - REFRESHER  2.0 units
Total Lecture: 36 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: HOC 002, American Heart Association BLS for the Healthcare Provider or equivalent.
Acceptable for credit: California State University
The purpose of this EMT-I refresher course is to review topics to prepare individuals to render prehospital basic life support at the scene of an emergency, during transport of the sick and injured, or during inter-facility transfer within an organized EMS system. This course meets all the refresher course requirements for recertification as an Emergency Medical Technician –I as specified in the regulations approved by the State of California Emergency Medical Services Authority in April 2013. Pass/No Pass Option.
FRN 001  FIRST SEMESTER FRENCH (ELEMENTARY LEVEL)  5.0 units
Total Lecture: 90 hours
Acceptable for credit: University of California, California State University
Students acquire the basic skills for communication in French: listening, speaking, reading, and writing. Students are also exposed to a general overview of Francophone civilization and culture. Pass/No Pass Option. CSUGE: C2; IGETC: 6A.

FRN 002  SECOND SEMESTER FRENCH (ELEMENTARY LEVEL)  5.0 units
Total Lecture: 90 hours
Prerequisite: FRN 001 or two years high-school French or equivalent with a grade of “C” or better.
Acceptable for credit: University of California, California State University
FRN 002 is a continuation of FRN 001. The student continues to develop basic skills for communication in French: listening, speaking, reading, and writing. The student is exposed to a general overview of francophone civilization and culture. Pass/No Pass Option. CSUGE: C2; IGETC: 3B, 6A.

GDS 045  WEB DESIGN AND DEVELOPMENT 1  3.0 units
Total Lecture: 36 hours, Total Lab: 54 hours
Acceptable for credit: California State University
This introductory course focuses on the design and technical skills required to create effective web designs using HTML, CSS and a variety of software packages. The basic principles of type, color, and layout are explored, along with necessary basic coding skills. Emphasis is placed on using industry standard workflows and techniques to create compelling designs. This course may also be offered via distance learning. Pass/No Pass Option.

HOC 019G  HOME HEALTH AIDE CLINICAL  0.5 Units
HOC 019G (replaces AHL 020G)
Total Arranged Lab: 24 hours
Co-requisite: HOC 019F
Advisory: Students should have basic arithmetic skills
This clinical practicum provides the student with experience in basic nursing skills in a skilled nursing facility/home setting. Students who successfully complete this course along with HOC 019F are eligible to apply for the California Home Health Aide Certificate. Pass/No Pass Only.

HOC 020  INTRODUCTION TO PROFESSIONAL HEALTH CARE  0.5 units
HOC 020 (replaces PT 067 / VN 050)
Total Lecture: 9 hours
Advisory: AHS 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent.
This course helps acquaint incoming vocational nursing and psychiatric technician students with Mission College, available student services, and the Health Occupations career tracks. It covers college orientation and information regarding Health Occupations policies and procedures, study skills, assignments, time management, and career opportunities. Pass/No Pass Only.
HOC 022  PATIENT NURSING CARE FUNDAMENTALS     1.5 units
HOC 022 (replaces PT 069 / VN 055A1)
Total Lecture: 27 hours
Advisory: AHL 001A, ENG 001A, HOC 003, HOC 905, MAT 903 or High School Algebra I or equivalent.
Prerequisite: BIO 022, BIO 047, BIO 048, HOC 002
Corequisite: HOC 020, HOC 023A, HOC 023B, HOC 023C, HOC 024; HOC 025A, HOC 025B, HOC 026A, HOC 026B
Acceptable for credit: California State University
This is a foundation course in which beginning Health Occupations students gain knowledge of fundamental principles and techniques necessary to provide basic nursing care to patients. Ethical and legal responsibilities of the vocational nurse and psychiatric technician are explored. Students utilize the nursing process and therapeutic communication while gaining competence in performing basic nursing procedures and skills, including administration of medications and enemas; performing physical assessments of body systems; collecting and ensuring integrity of diagnostic specimens; insertion of nasogastric tube; enteral feedings; airway suctioning; tracheotomy care; wound assessment and care, including application of dressings; as well as documentation of assessment findings, care provided and patient’s responses. Grade only.

HOC 023A  BEG. MEDICAL-SURGICAL NURSING THEORY     2.5 units
HOC 023A (replaces PT 068 / VN 055A2)
Total Lecture: 45 hours
Corequisite: HOC 022, HOC 023B, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, HOC 027, HOC 028, PSY 001 or PSY 001H, PSY 012
Acceptable for credit: California State University
This course focuses on beginning level nursing care and interventions for patients with diseases or disorders of particular body systems. The nursing process is used as a critical thinking tool in understanding diagnostics, assessing manifestations experienced by the patient, identifying and implementing evidence-based nursing interventions, and evaluating outcomes. Students identify the roles of vocational nurses and psychiatric technicians in collaborating with other health team members and planning therapeutic management of patients with conditions affecting the musculoskeletal, neurological, neurosensory and reproductive systems. Includes six hours of related pharmacology content. Grade only.

HOC 023B  BEG. COGNITIVE DISABILITIES–MENTAL HEALTH THEORY     1.0 unit
HOC 023B (replaces PT 017A / PT 017B / PT 017C / VN 055B2)
Total Lecture: 18 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, HOC 027, PSY 001 or PSY 001H, PSY 012
Acceptable for credit: California State University
This beginning course is designed to present theoretical concepts of mental health disorders, legal and ethical principles, and approaches to assist the vocational nursing and psychiatric technician students to identify and understand therapeutic communication skills, psycho-pharmacological concepts and assessment skills in caring for persons with psychiatric disorders. Among these skills are objective and subjective observations and data collection through assessment of strengths and abnormalities in function and behavior across the lifespan. Includes two hours of related pharmacology content. Grade only.

HOC 023C  BEG. COGNITIVE DISABILITIES–DEVELOPMENTAL DISABILITY THEORY     1.0 unit
HOC 023C (replaces PT 013A / PT 013B)
Total Lecture: 18 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 024, HOC 025B, HOC 026B, HOC 027, PSY 012
Acceptable for credit: California State University
This is a beginning course in which the causes of intellectual and development disorders are explored. Psychiatric Technician students learn to perform focused behavioral and functional assessments and plan behavioral modification interventions for enhancing quality of life within areas of interpersonal relations, social inclusion, physical well-being and personal development for clients with intelligence and developmental disorders. Includes two hours of related pharmacology content. Grade only.

HOC 024  PHARMACOLOGY A     1.0 unit
HOC 024 (replaces PT 060A / VN 060A)
Total Lecture: 18 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, HOC 027, PSY 001 or PSY 001H, PSY 012
Acceptable for credit: California State University
This beginning course in pharmacology presents the vocational nursing and psychiatric technician student with the basic principles of pharmacology. The emphasis is on defining pharmacological agents, the use of reference books, and the nursing implications in pharmacological therapy. The course covers the uses of pharmacological agents, precautions for use, side effects, medication interactions, contraindications, and patient teaching for safe and proper pharmacological agent use for patients with disorders of the musculoskeletal, neurological, neurosensory, and reproductive systems. This course is approved for credit by exam. Grade only.

HOC 025A  FUNDAMENTALS SKILLS/ SIMULATION LAB     1.0 unit
HOC 025A (replaces VN 055A1)
Total Lab: 54 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 024, HOC 027, PSY 001 or PSY 001H
Acceptable for credit: California State University
This course allows the beginning vocational nursing student the opportunity to integrate the concepts of the nursing process, clinical reasoning, nursing theory, and nursing skills in a laboratory setting which simulates the clinical experience. Focus is placed on developing competence in performing basic nursing procedures and skills through practice on manikins, return demonstration of skills and participation in simulated clinical scenarios aimed to meet the needs of the medical-surgical and geriatric patients with musculoskeletal, neurological, neurosensory, reproductive and mental health disorders in inpatient and outpatient settings. Pass/No Pass Only.

HOC 025B  FUNDAMENTALS SKILLS/ SIMULATION LAB     1.0 unit
HOC 025B (replaces PT 069)
Total Lab: 54 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 025B, HOC 026B, HOC 027
Acceptable for credit: California State University
This course allows the beginning psychiatric technician student the opportunity to integrate the concepts of the nursing process, clinical reasoning, nursing theory, and nursing skills in a laboratory setting which simulates the clinical experience. Focus is placed on developing competence in performing basic nursing procedures and skills through practice on manikins, return demonstration of skills and participation in simulated clinical scenarios aimed to meet the needs of the medical-surgical and geriatric patients with musculoskeletal, neurological, neurosensory, reproductive and mental health disorders in inpatient and outpatient settings. Pass/No Pass Only.
HOC 026A BEG. CLINICAL PRACTICUM 5.0 units
HOC 026A (replaces VN 055A1 / VN 055B1)
Total Lab: 270 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 024, HOC 025A, HOC 027, PSY 001 or PSY 001H
Acceptable for credit: California State University
This is a foundation course which provides the Vocational Nursing student clinical experiences during which they integrate standards of professional practice, theoretic principles of nursing, therapeutic communication, nursing process and basic nursing skills during supervised care to patients with acute or chronic medical-surgical concerns and mental illnesses. Students spend approximately seventeen hours each week in community agencies. Pass/No Pass Only.

HOC 026B BEG. CLINICAL PRACTICUM 5.0 units
HOC 026B (replaces PT 069 / PT 019A / PT 019B)
Total Lab: 270 hours
Advisory: AHL 001A, HOC 002, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 025B, HOC 027, PSY 012
Acceptable for credit: California State University
This is a foundation course which provides the beginning psychiatric technician student clinical experiences during which they integrate research-based standards of professional practice, theoretic principles of nursing science, therapeutic communication, nursing process and basic nursing skills during supervised care to patients/clients with acute or chronic medical-surgical concerns, intellectual, developmental and mental health disabilities and disorders throughout the lifespan. Students spend approximately seventeen hours each week in community health care agencies. Pass/No Pass Only.

HOC 027 NURSING PROCESS AND COMMUNICATION 2.0 units
HOC 027 (replaces PT 017C / VN 055A3 / VN 055A4)
Total Lecture: 36 hours
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent
Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, PSY 001 or PSY 001H
Acceptable for credit: California State University
This course is designed to provide the beginning health care practitioner with an introduction to the framework of nursing process and basic communication concepts. Both are essential to development of problem-solving and critical thinking abilities as well as the formation of trusting interpersonal relationships necessary to meet individualized needs of the client, family, and community. Vocational nursing and psychiatric technician students participate in activities designed to integrate therapeutic communication through each step of the nursing process that facilitates active engagement of the patient and family in health care management while supporting effective, collaborative teamwork among interdisciplinary healthcare members. Grade only.

HOC 045A ADVANCED SKILLS/ SIMULATION LAB 1.0 unit
HOC 045A (replaces VN 055C2)
Total Lab: 54 hours
Prerequisite: HOC 032 Must pass the course with a grade of 75% or higher; HOC 033A Must pass the course with a grade of 75% or higher; HOC 033B Must pass the course with a grade of 75% or higher; HOC 034 Must pass the course with a grade of 75% or higher; HOC 035A ; HOC 036A ; NTR 015.
Corequisite: HOC 042 Must pass the course with a grade of 75% or higher; HOC 043A Must pass the course with a grade of 75% or higher; HOC 043B Must pass the course with a grade of 75% or higher; HOC 044 Must pass the course with a grade of 75% or higher; HOC 046A ; HOC 047 Must pass the course with a grade of 75% or higher; PSY 012 (May be taken as a prerequisite).
Acceptable for credit: California State University

This course allows the advanced vocational nursing student the opportunity to integrate the concepts of the nursing process, clinical reasoning, nursing theory, and nursing skills in a laboratory setting which simulates the clinical experience. Focus is placed on developing competence in performing basic nursing procedures and skills through practice on manikins, return demonstration of skills and participation in simulated clinical scenarios aimed to meet the needs of the medical-surgical and geriatric patients with gastrointestinal, integumentary, endocrine, and hematological disorders and pediatric patients and their families in inpatient and outpatient settings. Pass/No Pass Only.

HOC 905 MATH FOR HEALTH OCCUPATIONS 1.0 units
Total Lecture: 18 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
This course is an introduction to math calculations for health occupations students. It provides the learner with the opportunity to explore the math functions within the health field. Students become competent with performing accurate calculations for the delivery of medications. Pass/No Pass Option Non-degree applicable course.

KINESIOLOGY (KIN)

KIN 014C VOLLEYBALL – INTERMEDIATE 1.0 unit
Total Lab: 54 hours
Advisory: KIN 014B
Acceptable for credit: California State University
This course is designed to enhance the fundamental skills of volleyball and add jump-serving hitting, swing-blocking, jump-setting and tipping techniques to the players’ repertoire. Players work on improving the depth and accuracy of their skills while employing specific strategies of the game. Pass/No Pass Option. CSUGE: E.

KIN 014D VOLLEYBALL – ADVANCED 1.0 unit
Total Lab: 54 hours
Advisory: KIN 014C
Acceptable for credit: California State University
This course is designed to enhance the fundamental skills of volleyball and add jump-serving hitting, swing-blocking, jump-setting and tipping techniques to the players’ repertoire. Players work on fine tuning the depth and accuracy of their skills while employing specific, advanced strategies of the game. Pass/No Pass Option. CSUGE: E.

KIN 033C KICKBOXING FITNESS- INTERMEDIATE 1.0 unit
Total Lab: 54 hours
Acceptable for credit: California State University
This course advances students’ kickboxing skills for aerobic fitness. Basic punches, kicks and stances are taught. Techniques are taken from karate, tai chi and boxing as ways to improve cardiovascular fitness. Pass/No Pass Option. CSUGE: E.

KIN 078 INTRODUCTION TO KINESIOLOGY 3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University, University of California
This course is an introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in physical education and kinesiology (motor learning/control, motor development, biomechanics, exercise physiology, social psychological foundations, and sport nutrition) will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions. This course may also be offered via distance learning. Pass/ No Pass Option. C-ID # KIN 100. CSUGE: E.
KIN 079 LIFETIME FITNESS 3.0 Units
Total Lecture: 54 hours
Acceptable for credit: California State University, University of California
This course serves as an introduction to fitness, wellness and lifestyle management. Topics covered include: theories of health and fitness, nutrition, weight management, and behavioral changes that promote a healthy lifestyle. Students participate in activities consisting of a variety of fitness tests and measurements to evaluate their fitness level and set goals related to their own personal development. Pass/No Pass Option.

KIN 081 SPORT IN SOCIETY 3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University
Sport in Society is a sociological analysis of sport in contemporary American Society. Sport roles and sport institutions are examined to help explain the impact of sport on basic social institutions including family, church, school, government, and economics. Different patterns of involvement in sport, the social forces that have created sports organizations, the societal impact of sports and the consequences of sports participation are also investigated. The course uncovers the ethic consequences of the modern pressures on athletes in schools and the commercialism of professional sport. Pass/No Pass Option.

LIB 010 INFORMATION COMPETENCY 1.0 unit
Total Lecture: 18 hours
Acceptable for credit: California State University; University of California
This course covers the basic elements of information competency by introducing students to the nature of research and the role of the library in research, including finding, analyzing, organizing, and presenting information and the legal and ethical aspects of research. Students are introduced to a variety of information resources including print, media, electronic formats and the World Wide Web. This course may be offered via distance learning. Pass/No Pass Option.

LIB 010H INFORMATION COMPETENCY – HONORS 1.0 Unit
Total Lecture: 18 hours
Acceptable for credit: California State University; University of California
This course covers the basic elements of information competency by introducing students to the nature of research and the role of the library in research, including finding, analyzing, organizing, and presenting information and the legal and ethical aspects of research. Students are introduced to a variety of information resources including print, media, electronic formats and the World Wide Web. Students cannot get credit for both LIB 010 and LIB 010H. Enrollment in the Honors Transfer Project is required. This course may be offered via distance learning. Pass/No Pass Option.

MAT 000CM INTERMEDIATE ALGEBRA (MAPS) 5.0 units
Total Lecture: 90 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Co-requisite: MAT 00CMX
MAT 000CM is the second course in the MAPS Algebra sequence that will prepare students to meet the math requirement for the associate degree. The MAPS program is designed for the student who has had difficulty in mathematics. Extended classroom hours in this sequence allow students to participate in various conceptual activities to build a stronger foundation in the fundamental concepts. Special attention is paid to presenting the material in various modalities to meet the needs of the students. Course topics include linear systems and inequalities, absolute value equations and inequalities, rational exponents, radicals, complex numbers, quadratic equations, graphical representations, functions and inverses, logarithmic and exponential functions, conic sections, sequences and series, and applied problems. Concurrent enrollment in MAT 00CMX is mandatory. This course is approved for credit by exam. Pass/No Pass Option.

MAT 000CMX INTERMEDIATE ALGEBRA MAPS EXTRA 3.0 units
Total Lecture: 54 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Co-requisite: MAT 00CM
This lecture course is a corequisite for MAT 000CM. This course provides students with additional lecture time, and consequently additional required homework assignments, in order for them to fully engage and succeed in the enhanced and innovative learning strategies and activities used by the MAPS program. Pass/No Pass Only.

MAT 000D TRIGONOMETRY 3.0 units
Total Lecture: 54 hours
Prerequisite: MAT 000C or MAT 000CM or MAT 00CMX or High School Algebra II, or equivalent.
Acceptable for credit: California State University
This course fulfills the graduation competency requirement for Associate degree and the general education requirement in mathematics for the CSU system. It introduces critical thinking techniques in areas of mathematics that include, but not limited to sequences and series, probability and statistics, countable and uncountable sets, cryptography and number theory, history of mathematics, mathematics in art and nature, the Pythagorean Theorem, and methods of proof.
and game theory. There is an emphasis on general problem solving techniques as the class explores mathematics that may will be unfamiliar to most students, and communicate mathematics through class activities and write-ups. Pass/No Pass Option. CSUGE: B4; IGETC: 2A.

MAT 001  COLLEGE ALGEBRA  4.0 units
Total Lecture: 72 hours
Prerequisite: MAT 000C or MAT 000CM or MAT 00CMX or High School Algebra II, or equivalent.
Acceptable for credit: University of California, California State University
This is a college-level course in preparation for the Calculus sequence. Its contents include real and complex number systems, polynomials, algebraic fractions, exponents and radicals, linear and quadratic equations, simultaneous equations, inequalities, functions, theory of equations, exponential and logarithmic equations, sequence and series, induction and the binomial theorem. This course may be offered via distance learning. This course is approved for credit by exam. Pass/No Pass Option. C-ID # MATH 955. CSUGE: B4; IGETC: 2A.

MAT 002  PRECALCULUS AND TRIGONOMETRY  6.0 units
Total Lecture: 108 hours
Prerequisite: MAT 000C or MAT 000CM or MAT 00CMX or High School Algebra II, or equivalent.
Acceptable for credit: University of California (4 units only), California State University
This is an intensive course covering those topics traditionally found in the separate courses of college algebra (MAT 001) and trigonometry (MAT 000D). This course is designed for the highly motivated and very well prepared student who desires to fulfill the requirements of MAT 000D and MAT 001 in one semester. It prepares the student for the Calculus 003A/B sequence. This course is approved for credit by exam. Pass/No Pass Option. C-ID # MATH 955. CSUGE: B4; IGETC: 2A.

MAT 010  ELEMENTARY STATISTICS  4.0 units
Total Lecture: 72 hours
Prerequisite: MAT 000C or MAT 000CM or MAT 00CMX or High School Algebra II, or equivalent.
Acceptable for credit: University of California, California State University
Students study and demonstrate knowledge and understanding of descriptive and inferential statistics including data analysis, correlation and linear regression, probability, probability distributions and assorted hypothesis testing. Particular emphasis is placed on applications. Current statistical computer packages are used. This course may also be offered via distance learning. This course is approved for credit by exam. Pass/No Pass Option. C-ID # MATH 110. CSUGE: B4; IGETC: 2A.

MAT 010H  ELEMENTARY STATISTICS HONORS  4.0 units
Total Lecture: 72 hours
Prerequisite: MAT 000C or MAT 000CM or MAT 00CMX or High School Algebra II, or equivalent.
Acceptable for credit: University of California, California State University
This course is the honors version of the Elementary Statistics course. The course provides students with a comprehensive introduction to statistical methods and research. Topics include descriptive and inferential statistics, correlation and linear regression, probability, probability distributions and assorted hypothesis testing. Particular emphasis is placed on applications and data analysis. Current statistical computer packages are used. Students may not receive credit for both MAT 010 and MAT 010H. Enrollment in the Honors Transfer Project is required. This course may also be offered via distance learning. Pass/No Pass Option. C-ID # MATH 110. CSUGE: B4; IGETC: 2A.

MAT 012  CALCULUS FOR BUSINESS  4.0 units
Total Lecture: 72 hours
Prerequisite: MAT 000C or MAT 000CM or MAT 00CMX or High School Algebra II, or equivalent.
Acceptable for credit: University of California, California State University
Course topics include the intuitive concept of a limit, and simple techniques of differential and integral calculus and their most common applications in business, social science and biology. This course is suitable for business, biology, or social science majors. This course is not equivalent to MAT 003A. This course is approved for credit by exam. Pass/No Pass Option. C-ID # MATH 140. CSUGE: B4; IGETC: 2A.

MAT 080  ADOPTION OF CALCULUS FOR BUSINESS  3.0 units
Total Lecture: 54 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Co-requisite: MAT 003M
MAT 080 is the first course in the MAPS Algebra; it prepares students to meet the math requirement for the associate degree. The MAPS program is designed for the student who has had difficulty in mathematics. Extended classroom hours in this sequence allow students to participate in various conceptual activities to build a stronger foundation in the fundamental concepts. Special attention is taken to present the material in various modalities to meet the needs of the students. Course topics include operations with real numbers; properties of real numbers and signed exponents; solving and graphing linear equations; solving linear inequalities; functions; factoring polynomials; solving quadratic equations by factoring; simplifying rational expressions; solving rational equations; applications of linear, quadratic, and rational equations; and working with scientific notation. Concurrent enrollment in MAT 080 is mandatory. This course is approved for credit by exam. Pass/No Pass Only. Non-degree applicable course.

MAT 080M  ELEMENTARY ALGEBRA (MAPS)  3.0 units
Total Lecture: 54 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
Co-requisite: MAT 003M
This lecture course is a co-requisite for MAT 003M. This course provides students with additional lecture time, and consequently additional required homework assignments, in order for them to fully engage and succeed in the enhanced and innovative learning strategies and activities employed by the MAPS program. Pass/No Pass Only. Non-degree applicable course.

MAT 009  INTEGRATED STATISTICS I  5.0 units
Total Lecture: 90 hours
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration.
This is the first of two courses in the Statway sequence. Students study and demonstrate concepts and methods of statistics with an emphasis on data analysis. Topics include methods for collecting data, descriptive statistics, introduction to simple linear regression, and basic concepts of probability. Particular emphasis is placed on applications. Current statistical technology packages are used. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. Successful completion of both MAT 009 and MAT 009 is required to satisfy CSU and UC transferability. Pass/No Pass Option. Non-degree applicable course.
COURSES

NONCREDIT ENGLISH AS A SECOND LANGUAGE (NCE)

NCE 010  ENGLISH FOR CITIZENSHIP  NONCREDIT
Total: 48 Hours
Advisory: NCE 910B
In this course, students develop the English speaking, listening, and literacy skills necessary to pass an oral and written U.S. citizenship exam. Topics include a general survey of U.S. history, government, and civics, including culture, institutions, and ideals. Non-degree applicable course.

NCE 920EC  NC ESL FOR CHILD CARE: INTRO  NONCREDIT
Total: 32 Hours
Advisory: NCE 910
This beginning level course develops oral and written communication skills in English within the context of child care and parenting. Students develop listening, speaking, reading and writing skills for communicating about a child’s day-to-day care, needs, and interests. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 920GW  BEGINNING GRAMMAR AND WRITING  NONCREDIT
Total: 54 Hours
Advisory: NCE 910A
This course is for beginning-level ESL students with minimal knowledge of English grammar and writing conventions. The course is designed to provide an introduction to English grammar and opportunities to practice basic sentence-level writing skills. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 920PL  BEGINNING PRONUNCIATION AND LISTENING  NONCREDIT
Total: 54 Hours
Advisory: NCE 920A
Beginning level students develop and practice basic aspects of American English pronunciation in order to speak more clearly, confidently, and accurately. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 930EC  NC ESL FOR CHILD CARE: HEALTH AND SAFETY  NONCREDIT
Total: 72 Hours
Advisory: NCE 920B
This high-beginning level course develops oral and written communication skills in English within the context of child care and parenting. Students develop listening, speaking, reading and writing skills for communicating about a child’s health and safety. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 931  HIGH BEGINNING LISTENING AND SPEAKING  NONCREDIT
Total: 72 Hours
Advisory: NCE 920B
This is the first course in a noncredit certificate program in High Beginning ESL. Students develop listening skills necessary for comprehension of vocabulary, sentences, and short lectures on academic and day-to-day topics. Students also develop pronunciation and speaking skills necessary for clearly expressing themselves. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 932  HIGH BEGINNING GRAMMAR AND WRITING  NONCREDIT
Total: 72 Hours
Advisory: NCE 920B AND NCE 931
This is the second course in a noncredit certificate program in High Beginning ESL. Students develop basic writing and grammar skills of standard written English. Students also practice and write simple and compound sentences using correct word forms, word order, articles, prepositions, spelling, and punctuation within their written compositions. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 933  HIGH BEGINNING READING AND VOCABULARY  NONCREDIT
Total: 72 Hours
Advisory: NCE 932
This is the third course in a noncredit certificate program in High Beginning ESL. In this course, students develop reading and vocabulary skills necessary for comprehension of simplified articles and stories in English. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

NCE 934  BRIDGE TO ESL COLLEGE SUCCESS  NONCREDIT
Total: 32 Hours
Advisory: NCE 933
This is the fourth course in the series of noncredit courses that make up the certificate in High Beginning ESL. Students develop their English language skills as they acquire successful strategies for the credit-level ESL program and other academic college classes. Pass/No Pass, Satisfactory Progress.

NCE 940EC  NC ESL FOR CHILD CARE: AGES AND STAGES  NONCREDIT
Total: 64 Hours
Advisory: ESL 930EC
This low-intermediate level course develops oral and written communication skills in English within the context of child care and parenting. Students develop listening, speaking, reading and writing skills for communicating with and about infants, toddlers, preschoolers, and school-age children. This course may also be offered via distance learning. Pass/No Pass, Satisfactory Progress.

PHYSICS (PHY)

PHY 010  INTRODUCTION TO PHYSICS  4.0 units
Total Lecture: 54 hours, Total Lab: 54 hours
Prerequisite: MAT 903 or High School Algebra I, or equivalent.
Acceptable for credit: University of California, California State University
This is a conceptual course in physics, including the development of fundamental concepts as applied to everyday phenomena, from a limited mathematical perspective, emphasizing verbal logic, critical analysis, and rational thought. The topics included in this course are mechanics, thermodynamics, electricity and magnetism, optics, and modern physics. Grade only. CSUGE: B1; IGETC: 5A.

SOCIAL JUSTICE STUDIES (SJS)

SJS 001  SOCIAL JUSTICE  3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University, University of California
Interdisciplinary study of social justice. The course will cover philosophical and historical foundations of the social justice concept and movement and examine the socio-economic, cultural and political conditions of key social groups. The lens will be centered on but not limited to the experiences of the United States. This course may be offered via distance learning. Pass/No Pass Option.
SJS 002  INTRODUCTION TO GENDER STUDIES  3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University, University of California
In this course, students will learn how sex and gender are shaped by biological and environmental factors, and what research shows about sex differences. Further, students will examine gender from feminist perspectives. This course will examine how gender is constructed in various institutions such as the family, mass media, education, and the economy. In this course students will be given a basic understanding of the gender and feminism and will be introduced to relevant theories of gender, the intersectionality of gender, race and class, as well as how gender shapes an individual’s experience of the world in realms such as communication, sexuality, relationships, work, health and violence. This course may be offered via distance learning. Pass/No Pass Option.

SJS 003  INTRODUCTION TO LGBTQ STUDIES  3.0 units
Total Lecture: 54 hours
Acceptable for credit: California State University, University of California
This introductory course introduces students to a broad range of historical and contemporary gay, lesbian, bisexual, transgender, and queer issues addressed through sociological, political, racial, and sexual context. This course may be offered via distance learning. Pass/No Pass Option.

SOCIOLOGY (SOC)

SOC 016  INTRODUCTION TO STATISTICS IN SOCIAL AND BEHAVIORAL SCIENCES  3.0 units
Total Lecture: 54 hours
Prerequisite: PSY 001 AND
Prerequisite: MAT 000C or MAT 000CM/00CMX or High School Algebra II, or equivalent OR
Prerequisite: PSY 001H AND
Prerequisite: MAT 000C or MAT 000CM/00CMX or High School Algebra II, or equivalent OR
Prerequisite: SOC 001 AND
Prerequisite: MAT 000C or MAT 000CM/00CMX or High School Algebra II, or equivalent OR
Prerequisite: SOC 001H AND
Prerequisite: MAT 000C or MAT 000CM/00CMX or High School Algebra II, or equivalent
Acceptable for credit: University of California, California State University
For students majoring in psychology, sociology, and other behavioral sciences. Introduces students to the basic statistical techniques and design methodologies used in behavioral sciences. Topics include descriptive statistics; probability and sampling distributions; statistical inference and power; linear correlation and regression; chi-square; t-tests, and ANOVA. An emphasis will be placed on the interpretation and relevance of statistical findings and the application of statistical concepts to real-world problems in the behavioral and social sciences. Pass/No Pass Option. C-ID # SOCI 125. CSUGE: B4; IGETC: 2A.

TRANSPORTATION (TRN)

TRN 102  PUBLIC SERVICE AND STRESS MANAGEMENT FOR PUBLIC TRANSIT EMPLOYEES  1.0 unit
Total Lecture: 18 hours
Students are introduced to the principles of effective stress management for public service and managing stress factors inherent in the transit industry. Students acquire fundamental knowledge of public service strategies and stress management skills needed for a career in transit industry operations. This course is approved for credit by exam. Pass/No Pass Option.

TRN 103  COMMUNITY HEALTH ISSUES FOR PUBLIC TRANSIT EMPLOYEES  1.0 unit
Total Lecture: 18 hours
Students are introduced to common community health problems and issues they are likely to encounter on the job in the public transit industry. Topics include biohazards, communicable disease, and occupational safety. Additionally, students are taught a framework for understanding and handling interactions with members of the community suffering from difficult health issues, such as substance abuse or mental illness. This course is approved for credit by exam. Pass/No Pass Option.

TRN 104  PEER MENTORING FOR PUBLIC TRANSIT WORKERS: ONE-ON-ONE SKILLS  1.0 unit
Total Lecture: 18 hours
Students are introduced to the basic elements of one-on-one peer mentoring in a transit industry environment. Students acquire fundamental knowledge of the personal and interpersonal skills needed to be an effective peer mentor in entry-level transit operations. This course is approved for credit by exam. Pass/No Pass Option.

TRN 105  GROUP FACILITATION AND TRAINING SKILLS FOR PEER MENTORS  1.0 unit
Total Lecture: 18 hours
This course focuses on the theory and practice of facilitating effective meetings in a public transit environment. Topics include the differences between leading and facilitating, fundamental facilitation techniques, and personal strategies for facilitators to maintain neutrality while guiding meeting participants to successful outcomes. This course is approved for credit by exam. Pass/No Pass Option.

TRN 106  INTERPERSONAL COMMUNICATION FOR TRANSIT WORKERS  1.0 unit
Total Lecture: 18 hours
Students are introduced to the principles of effective interpersonal communication in public transit professions. Topics include verbal and non-verbal communication, active listening, and accountability in communication. This course is approved for credit by exam. Pass/No Pass Option.

TRN 107  LABOR/MANAGEMENT PROBLEM SOLVING IN PUBLIC TRANSIT  1.0 unit
Total Lecture: 18 hours
Students are introduced to the principles of effective labor/management problem solving in public transit professions. Topics include an overview of labor and management; trust building, and developing problem solving strategies. This course is approved for credit by exam. Pass/No Pass Option.

TRN 108  PERFORMANCE COACHING FOR PUBLIC TRANSIT LEADERS  1.0 unit
Total Lecture: 18 hours
Students are introduced to the principles of effective performance coaching in unionized public transit professions. Topics include leadership roles, management styles, and positive performance coaching. This course is approved for credit by exam. Pass/No Pass Option.

TRN 109  TRANSIT BUSINESS TECHNOLOGY AND PRACTICES FOR TRANSIT EMPLOYEES  1.0 unit
Total Lecture: 9 hours, Total Lab: 27 hours
Students acquire fundamental technology skills necessary in today’s public transit agencies, including computer basics, simple usage of Microsoft Office applications, and accessing the Internet. This course is approved for credit by exam. Pass/No Pass Option.
TRN 110 TRANSIT OPERATIONS FOR NEW LEADERS 2.0 units
Total Lecture: 36 hours
Students are introduced to major support departments in public transit bus (coach) operations: coach maintenance, transit planning and scheduling, transit radio dispatching, and field supervision. Students learn the major functions, relationships, and overall impact of these departments on delivering safe and reliable public bus service on the street. This course is approved for credit by exam. Pass/No Pass Option.

TRN 121 WAY, POWER, & SIGNAL MAINTENANCE CORE TRAINING I 1.0 unit
Total Lecture: 9 hours, Total Lab: 27 hours
Students are introduced to the Way, Power, and Signal shop floor and basic safety protocols. This course prepares students for positions in light rail maintenance. This course is approved for credit by exam. Pass/No Pass Option.

TRN 122 WAY, POWER, & SIGNAL MAINTENANCE CORE TRAINING II 1.0 unit
Total Lecture: 18 hours
Students are introduced to rail certification (rules and regulations) and roadway worker protection (safety in the railroad environment). This course prepares students for positions in light rail maintenance. This course is approved for credit by exam. Pass/No Pass Option.

TRN 123 WAY, POWER, & SIGNAL MAINTENANCE CORE TRAINING III 1.0 unit
Total Lecture: 18 hours
Students are introduced to rail certification (rules and regulations) and roadway worker protection (safety in the railroad environment). This course prepares students for positions in light rail maintenance. This course is approved for credit by exam. Pass/No Pass Option.

TRN 131 BASIC PRINCIPLES OF TRACK MAINTENANCE I 2.0 units
Total Lecture: 27 hours, Total Lab: 27 hours
Students are introduced to track structure, safety and use of track, track tools, roadbed, crossties, and ballast. This course prepares students for entry-level positions in railway track work. This course is approved for credit by exam. Pass/No Pass Option.

TRN 132 BASIC PRINCIPLES OF TRACK MAINTENANCE II 2.0 units
Total Lecture: 27 hours, Total Lab: 27 hours
Students are introduced to rail maintenance, rail joint maintenance, track alignment and gage, track surface, turnouts, and roadway maintenance. This course prepares students for entry-level positions in railway track work. This course is approved for credit by exam. Pass/No Pass Option.

TRN 133 ADVANCED PRINCIPLES OF TRACK MAINTENANCE I 2.0 units
Total Lecture: 27 hours, Total Lab: 27 hours
Students are introduced to rail replacement, cutting and welding, turnouts and trackwork, track construction, railroad grade crossing, and management and security. This course prepares students for entry-level positions in railway track work. This course is approved for credit by exam. Pass/No Pass Option.

TRN 134 ADVANCED PRINCIPLES OF TRACK MAINTENANCE II 2.5 units
Total Lecture: 27 hours, Total Lab: 54 hours
Students are introduced to operation work equipment, vegetation control, rail defects, track inspection, Federal Railroad Administration (FRA) track standards, and derailment work. This course prepares students for entry-level positions in railway track work. This course is approved for credit by exam. Pass/No Pass Option.

TRN 143 DC THEORY AND POWER COMPONENTS 2.0 units
Total Lecture: 36 hours
Advisory: MAT 903 or High School Algebra I, or equivalent
Prerequisite: Per California Code of Regulations, this course is limited to students admitted to the Overhead Line Core apprenticeship program at Santa Clara Valley Transportation Authority.
This course covers DC (Direct Current) theory and various power components used in overhead line work. Per California Code of Regulations, this course is limited to students admitted to the Overhead Line Core apprenticeship program at Santa Clara Valley Transportation Authority. This course is approved for credit by exam. Pass/No Pass Option.

TRN 201 SERVICE MECHANIC: ORIENTATION & SAFETY 2.5 units
Total Lecture: 45 hours
This course covers an orientation to VTA, the mechanic helper program, the shop floor, familiarization with the fleet, and electrical safety. This course is approved for credit by exam. Pass/No Pass Option.

TRN 202 SERVICE MECHANIC: TOOLS & FASTENERS 2.5 units
Total Lecture: 45 hours
This course focuses on tools and fasteners: correct work methods, care and selection of tools, common tools and uses, and common fasteners and uses. This course is approved for credit by exam. Pass/No Pass Option.

TRN 203A SERVICE MECHANIC: ELECTRICAL/ ELECTRONICS 1 2.5 units
Total Lecture: 45 hours
This course covers direct current, circuits, Ohm’s Law, and Watt’s Law. This course is approved for credit by exam. Pass/No Pass Option.

TRN 203B SERVICE MECHANIC: ELECTRICAL/ ELECTRONICS 2 2.5 units
Total Lecture: 45 hours
This course covers batteries, starters, and the ATEC course on wiring, circuits, and schematics. This course is approved for credit by exam. Pass/No Pass Option.

TRN 204 SERVICE MECHANIC: AIR BRAKES 2.5 units
Total Lecture: 45 hours
This course introduces students to the air brake system used on VTA buses. Classroom theory on brake systems along Federal Motor Vehicle Safety Standards (FMVSS) will be emphasized. Topics include: air foundation brakes, air supply system, air service circuits, special circuits, and mechanical components. This course is approved for credit by exam. Pass/No Pass Option.

TRN 205 SERVICE MECHANIC: TRANSMISSION 2.5 units
Total Lecture: 45 hours
This course covers transmission, including safety, driveline checks, hydraulics, and other related topics. This course is approved for credit by exam. Pass/No Pass Option.

TRN 206 SERVICE MECHANIC: DIESEL ENGINE 2.5 units
Total Lecture: 45 hours
This course focuses on diesel engine theory and components. This course is approved for credit by exam. Pass/No Pass Option.
TRN 207  SERVICE MECHANIC: HYBRID FAMILIARIZATION  2.5 units  
Total Lecture: 45 hours  
This course focuses on hybrid engine systems and the different ways to work with them vs. traditional diesel engines. This course is approved for credit by exam. Pass/No Pass Option.

TRN 208  SERVICE MECHANIC: I/O CONTROLS 2.5 units  
Total Lecture: 45 hours  
This course focuses on Input/Output controls found on hybrid vehicles (onboard computer). This course is approved for credit by exam. Pass/No Pass Option.

TRN 209  SERVICE MECHANIC: PREVENTATIVE MAINTENANCE - PMI 2.5 units  
Total Lecture: 45 hours  
This course focuses on preventative maintenance practices, such as routine inspections. This course is approved for credit by exam. Pass/No Pass Option.

TRN 210  SERVICE MECHANIC: OVERHAUL & REPAIR ORIENTATION  2.5 units  
Total Lecture: 45 hours  
This course focuses on an overview of the Overhaul and Repair Department at public transit agencies. This course is approved for credit by exam. Pass/No Pass Option.

TRN 401  COACH OPERATOR: NEW OPERATOR TRAINING I  2.0 units  
Total Lecture: 27 hours, Total Lab: 27 hours  
This classroom/lab instruction course for Coach Operator Apprentices focuses on DMV legal regulations as they apply to the mass transit industry. This course is approved for credit by exam. Pass/No Pass Option.

TRN 402  COACH OPERATOR: NEW OPERATOR TRAINING II  5.0 units  
Total Lecture: 45 hours, Total Lab: 135 hours  
This classroom/lab instruction course for Coach Operator apprentices focuses on transit operations - rules and regulations, and processes. Apprentices also complete training in the field. This course is approved for credit by exam. Pass/No Pass Option.

TRN 403  COACH OPERATOR: NEW OPERATOR TRAINING III  1.0 unit  
Total Lecture: 18 hours  
This classroom instruction course for Coach Operator apprentices focuses on customer service, internal relationships between departments, and personal well-being. This course is approved for credit by exam. Pass/No Pass Option.

TRN 404  COACH OPERATOR: NEW OPERATOR TRAINING IV  1.0 unit  
Total Lecture: 18 hours  
This classroom instruction course for Coach Operator Apprentices focuses on safety and security while driving. This course is approved for credit by exam. Pass/No Pass Option.

TRN 405  COACH OPERATOR: NEW OPERATOR TRAINING V  1.0 unit  
Total Lecture: 18 hours  
This classroom instruction course for Coach Operator Apprentices focuses on technical proficiency with coach equipment, troubleshooting, and vehicle inspection. This course is approved for credit by exam. Pass/No Pass Option.