College of Business and Economics

Accountancy MS

Student Learning Outcomes

Students will think critically and apply conceptual solutions to advanced accounting issues.

Students will design and execute accounting research projects.

Students will exhibit effective written communication skills relevant to the accounting profession.

Students will exhibit effective oral communication skills relevant to the accounting profession.

Demonstrate the ability to identify ethical issues and to suggest appropriate courses of action for resolution.

Student will understand concepts and applications related to accounting analytics.

Students will work effectively as part of a team.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Accounting and Finance MS

Student Learning Outcomes

Interpret and critically analyze financial statements and further use this information in the financial decision-making of a firm.

Apply advanced knowledge in accounting and finance to assess the implications and valuations of complex business transactions and financial instruments.

Translate theories to practical settings by applying analytical skills to an applied research project.

Write professional and comprehensive reports using accounting and finance terms and present ideas in a logical framework.

Work collaboratively and effectively on an advanced accounting and finance issues as a leader and as part of a team.

Demonstrate awareness of how global, local, and regional environment factors interact with accounting and finance to make decisions that have a positive impact.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Business Administration BA

Student Learning Outcomes

Demonstrate an understanding of each of the business disciplines: Accounting, Economics, Finance, Information Systems & Decision Sciences, Management, and Marketing.

Apply knowledge from multiple business disciplines to understand business problems.

Analyze and compare data, applying appropriate methodologies to support decision-making.

Identify effective solutions using appropriate concepts, techniques, and models.

Demonstrate effective oral presentation skills.

Demonstrate effective written communication skills.

Demonstrate ability to effectively collaborate in team work environments.

Develop global perspectives about the business environment.

Identify ethical issues and dilemmas in business and recommend potential responses.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Economics BA

Student Learning Outcomes

To understand the economic problem of allocating limited resources among competing uses in an economy given a technological and institutional context.

To understand and use microeconomic concepts such as supply and demand, elasticity, costs, market structure, market imperfection, consumer and firm decision-making.

To understand and use macroeconomics concepts such as key measures and determinants of macroeconomic activity and growth, the interaction between goods, factors and financial markets, and monetary and fiscal policy.

To understand and use international economic concepts such as trade and exchange rates, and balance of payments.

To communicate coherently about economic issues and events.

To access, use and interpret economic literature and data.

To employ statistical methods for estimation and evaluation.

To apply various quantitative methods used in economic theory.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Economics MA

Student Learning Outcomes

Identify new topics for study from the pertinent scholarly literature, summarize the findings of previous studies, and emphasize the contribution of the new study.

Understand how to use economic theory to generate testable hypotheses about economic relationships that have practical relevance to the business community and/or public policy.

Possess effective communication skills and understand how to write reports and give presentations to disseminate research findings to business leaders, experts in the field, and to a broader audience.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Information Systems MS

Student Learning Outcomes

Identify and summarize problems and opportunities.

Prepare a development plan.

Make logical and reasoned conclusions.

Identify data sources to extract data/information, integrate and prepare data for analysis.

Analyze data using appropriate design and methods.

Interpret, recommend and report business decisions.

Demonstrate effective written communication skills.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Information Technology MS

Student Learning Outcomes

Identify and summarize problems and opportunities.

Prepare a development plan.

Make logical and reasoned conclusions.

Identify data sources to extract data/information, integrate and prepare data for analysis.

Analyze data using appropriate design and methods.

Interpret, recommend and report business decisions.

Demonstrate effective written communication skills.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

International Business BA

Student Learning Outcomes

Demonstrate an understanding of each of the business disciplines: Accounting, Economics, Finance, Information Systems & Decision Sciences, Management, and Marketing.

Apply knowledge from the above multiple disciplines to understand international business problems.

Analyze and compare between-country data, applying appropriate concepts, techniques, and models to tackle international business issues.

Recommend strategic solutions by building on the between-country similarities (and dissimilarities) that influence the competitive advantage of doing businesses abroad.

Demonstrate effective oral presentation skills.

Demonstrate effective written communication skills.

Demonstrate ability to effectively collaborate in team work environments.

Understand differences between countries in the political environment.

Understand differences between countries in the economic environment.

Understand differences between countries in the social/cultural environment.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

MBA

Student Learning Outcomes

Students will be able to demonstrate an understanding of key functions of business enterprises.

Students will be able to evaluate business environment and opportunities with integrated knowledge from different business functional areas to set strategic directions.

Students will be able to identify, analyze and solve complex business problems using quantitative methods, statistical analyses and information technology.

Students will be able to use appropriate theories and concepts in making managerial decisions in competitive and uncertain business environments.

Students will be able to recognize and identify effective leadership skills, and articulate their leadership philosophy.

Students will be able to demonstrate effective collaboration in team environments.

Students will be able to prepare and verbally communicate information in a coherent manner.

Students will be able to write in a clear and concise manner for a professional business audience.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Business and Economics

Taxation MS

Student Learning Outcomes

Students will think critically and apply solutions to advanced tax issues.

Students will design and execute effective research related to tax topics.

Students will exhibit effective written communication skills relevant to the tax profession.

Students will demonstrate the ability to identify ethical issues and to suggest appropriate courses of action for resolution.

Students will understand concepts and applications related to accounting analytics.

Students will work effectively as part of a team.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Cinema and Television Arts BA

Student Learning Outcomes

Demonstrate knowledge of historical, business and cultural issues that inform current and future media environments.

Apply theoretical and/or ethical concepts in a practical media environment.

Understand the role of diversity throughout all aspects of American and/or global media environments.

Write well-executed treatments, scripts, critical essays and/or research papers, employing information literacy in the process.

Analyze and/or execute key elements of production.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Communication Studies BA

Student Learning Outcomes

Communication Studies graduates should display self-awareness of their own communication competence across a variety of communication settings (interpersonal, small group, organization, and intercultural).

Communication Studies graduates should exhibit lower communication apprehension in a variety of communication contexts.

Communication Studies graduates should be able to identify the basic elements of an argument, advance a cogent argument, apply basic tests of evidence, and identify fallacies in reasoning.

Communication Studies majors should possess a basic understanding of major theories, models, concepts, principles, and processes of human communication.

Communication Studies graduates should possess a basic understanding of fundamental principles of research methods and experimental design.

Communication Studies graduates should be able to generate and present clear, coherent messages, using appropriate proof and supporting materials, in a variety of communication contexts.

Communication Studies graduates should communicate in ethically appropriate, culturally sensitive ways.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Communication Studies MA

Student Learning Outcomes

Students will complete original research projects that make material, theoretically-driven contributions to the body of knowledge in the field.

Students will integrate communication theory and research into an applied context.

Students will demonstrate a mastery of content in the field and draw important and original connections between different specialty areas.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Communications BA

Student Learning Outcomes

Demonstrate skills and knowledge for entry into professional practice.

Apply critical thinking, research, and analysis to meet personal and professional goals.

Demonstrate written and oral proficiency appropriate to the entry level of professional practice.

Demonstrate effective use of communication tools and technologies appropriate to the entry level of professional practice.

Apply appropriate concepts, models, and theories of communication to personal and professional situations.

Exhibit awareness of social, economic, and cultural diversity as demonstrated through the mass media.

Demonstrate a basic knowledge of historical, legal, and ethical issues that affect professional practices, and information literacy in such knowledge

Communications students will demonstrate awareness of the history and role of professionals within students' chosen occupational area. At the same time, Communications students will demonstrate current knowledge of and interest in their profession by active co-curricular engagement with professionals from outside of the classroom.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Communications MA

Student Learning Outcomes

All graduate students in the Department of Communications will articulate mastery of knowledge in theoretical foundations of the communications field.

All graduate students in the Department of Communications will demonstrate the ability to conduct graduate-level research using appropriate scholarly sources and applicable academic databases.

All graduate students in the Department of Communications will successfully analyze, interpret, and evaluate research methods used in scholarly study of communications.

All graduate students in the Department of Communications will develop and apply what they have learned in their graduate study through the application of a thesis or project that reflects mastery of these concepts.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Communicative Disorders BS

Student Learning Outcomes
Application of key concepts and skills relevant to the Communicative Disorders major: The learning goal for the Communicative Disorders major is for our students to maintain the accumulated essential knowledge in the major courses so that they can apply the knowledge to clinical issues in graduate school or in their work settings.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Communicative Disorders MS

Student Learning Outcomes

Students will demonstrate knowledge and skills acquisition in diagnosing and treating articulation and phonological disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating developmental language disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating acquired neurological disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating communicative disorders related to cognitive impairment.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating social/pragmatic problems.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating voice disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating fluency disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating swallowing disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating hearing disorders.

Students will demonstrate knowledge and skills acquisition in diagnosing and treating the use of alternative/augmentative communication (AAC) system.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Communications

Screenwriting MFA

Student Learning Outcomes

Demonstrate improvement in screenwriting fundamentals of story structure, dialogue, and character development.

Increase knowledge of how the role(s) of the writer have evolved over time in television and motion pictures.

Demonstrate the ability to create a plan for successful entry into the profession as a writer for television and/or motion pictures.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Art BA

Student Learning Outcomes

Students will demonstrate knowledge of historical and contemporary art forms and fields and their relationship to individual and societal values.

Students will generate, conceptualize, and refine their own artistic projects.

Art and design students will demonstrate clear, effective, and professionally written communication appropriate to the discipline.

Art Department students will demonstrate effective and persuasive oral communication appropriate to the discipline.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Art BFA

Student Learning Outcomes

Students will demonstrate knowledge of historical and contemporary art forms and fields and their relationship to individual and societal values.

Students will generate, conceptualize, and refine their own artistic projects.

Art department students will demonstrate clear, effective, and professionally written communication appropriate to the discipline.

Art Department students will demonstrate effective and persuasive oral communication appropriate to the discipline.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Art History BA

Student Learning Outcomes

Students will demonstrate knowledge of historical and contemporary art forms and fields and their relationship to individual and societal values.

Students will demonstrate knowledge of the principal monuments and artists of major art and design periods using interdisciplinary approaches where appropriate.

Students will demonstrate clear, effective, and professionally written communication appropriate to the discipline.

Students will demonstrate effective and persuasive oral communication appropriate to the discipline.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Art MA

Student Learning Outcomes

Students will demonstrate the expertise necessary to teach art or to succeed in professional practice.

Art department students will demonstrate clear, effective, and professionally written communication appropriate to the discipline.

Art Department students will demonstrate effective and persuasive oral communication appropriate to the discipline.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Art MFA

Student Learning Outcomes

Students will demonstrate the expertise necessary to teach art or to succeed in professional practice.

Art and design students will demonstrate clear, effective, and professionally written communication appropriate to the discipline.

Art and design students will demonstrate effective and persuasive oral communication appropriate to the discipline.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Dance BA

Student Learning Outcomes

Students adequately demonstrate the technique, performance skills and movement vocabulary required of performing artists.

Demonstrate critical thinking in the communication about works in the arts.

Demonstrate the ability to create, sustain, realize, and evolve personal vision and purposes.   Students will realize specific works or projects around elements of concepts. During this process they will analyze one's own work, as well as, those of others using various methods and perspectives.

Students will adequately demonstrate the capacity to define, analyze, and solve problems in the teaching of dance materials.   Students will solve problems within the area of classroom teaching projects. During this process they will work collaboratively, and analyze one's own work, as well as, those of others using various methods and perspectives.

Students adequately demonstrate the mastery of facts, concepts and vocabulary in the area of dance history. Students will be engaged in the learning and researching the history of the art form. During this process they will utilize critical thinking and originality in their approach to research and analysis.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Music BA

Student Learning Outcomes

Students will perform and discriminate pitch, harmony and rhythm in singing and dictation.

Music students are competent and reflective practitioners of the art of music through performance, composition, analysis, and reflection.

Music students will demonstrate professional standards of oral and written communication.

Music students will demonstrate successful collaboration through concert and recital performances and productions, both onstage and backstage.

Music students will understand and apply global perspectives and current trends to their acquired knowledge and skills in performance, composition and education.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Music BM

Student Learning Outcomes

Students will perform and discriminate pitch, harmony and rhythm in singing and dictation.

Music students will have a basic knowledge of music history, and literature.

Music students will exercise professional standards of oral and written communication.

Music students are competent and reflective practitioners of the art of music through performance, composition, analysis, and reflection.

Music students will practice successful collaboration through work on concert and recital performances and production, onstage and backstage.

Music students will understand and apply global perspectives and current trends to their acquired knowledge and skills in performance, composition and education.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Music MA

Student Learning Outcomes

Music scholars have advanced and proficient knowledge of music history and literature.

Musical practitioners are proficient, independent, and reflective practitioners of the art of music through performance.

Musical scholars exercise professional standards of oral and written communication through research documents and oral presentations.

Musical practitioners demonstrate leadership through successful collaborative experiences, academically and in musical performances.

Music graduate students will understand and apply global perspectives and current trends to their acquired knowledge and skills in performance, composition, education and career development.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Music MM

Student Learning Outcomes

Music scholars have advanced and proficient knowledge of music history, and literature.

Musical practitioners are proficient and independent practitioners of the art of music through performance.

Musical scholars exercise professional standards of oral and written communication through research documents and oral presentations.

Musical practitioners demonstrate leadership through successful collaborative experiences, academically and in musical performances.

Music graduate students will understand and apply global perspectives and current trends to their acquired knowledge and skills in performance, composition, education and career development.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Theatre BA

Student Learning Outcomes

Demonstrate a comprehensive knowledge of Theatre History and Literature from the earliest beginnings of the art to the modern day.

Demonstrate an ability to analyze Theatrical Literature in its many forms and from a variety of viewpoints and perspectives.

Critically evaluate, orally and in writing, the elements of production and performance as conceived by the various artists and executed by actors, technicians, and production personnel.

Apply skills and techniques in working with the materials of technical theatre including those involved in the creation of sets, costumes, makeup, lights and sound.

Communicate interpretations and conceptualizations of theatrical material orally, in writing, and through performance or other means of artistic expression.

Collaborate successfully with other students and artists in the creation and execution of work for the theatre in one or more capacities, including as actors, directors, designers, playwrights, technicians, stage managers and production personnel.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Theatre BFA

Student Learning Outcomes

Demonstrate proficiency in the ability to analyze text and character.

Students will be able to demonstrate an ability to integrate text analysis, voice production, movement, and acting technique into a cohesive characterization for public performance.

Students will demonstrate proficiency in the effective use of body and voice in the creation of character.

Collaborate successfully with other students and artists in the creation and execution of work for the theatre.

Students will demonstrate a comprehensive knowledge of theatre history and literature from the earliest beginnings of the art to modern day.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of the Arts

Theatre Arts MFA

Student Learning Outcomes

Demonstrate intellectual literacy in theatre history and dramatic literature.

Demonstrate an ability to research, analyze and critically examine theatrical literature within its historical context.

Conceive, research, design and implement artistic work for the theatre at a professional level.

Communicate clearly, effectively and persuasively through a variety of expressions.

Collaborate effectively as both a team member and leader to achieve cohesive works for the theatre.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Applied Computer Science MS

STUDENT OUTCOMES

The Applied Computer Science MS is a new program. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Civil Engineering BS

PROGRAM EDUCATIONAL OBJECTIVES

1. Technical Skills: Graduates will be successful in multidisciplinary engineering practice and being well integrated into the workforce.

2. Professional Skills: Graduates will demonstrate professional skills necessary to be competent employees/leaders.

3. Professional Attitude: Graduates will have high ethical and professional standards toward advancement of the profession and society.

STUDENT OUTCOMES
Upon completion of the degree program, graduates must demonstrate:
1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

In compliance with ABET accreditation standards.

College of Engineering and Computer Science

Civil Engineering MS

Student Learning Outcomes

An ability to analyze and solve complex engineering problems.

An ability to design a specific component, system, or process to meet desired needs within realistic constraints.

An ability to communicate effectively with a range of audiences.

Recognition of the need to engage in life-long learning and knowledge of contemporary issues.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Computer Engineering BS

PROGRAM EDUCATIONAL OBJECTIVES

1. Technical Growth: Graduates will be successful in modern engineering practice, integrate into the local and global workforce, and contribute to the economy of California and the nation.

2. Professional Skills: Graduates will continue to demonstrate the professional skills necessary to be competent employees, assume leadership roles, and enjoy career success and satisfaction.

3. Professional Attitude and Citizenship: Graduates will become productive citizens with high ethical and professional standards, make sound engineering or managerial decisions, and have enthusiasm for the profession and professional growth.

STUDENT OUTCOMES
Upon completion of the degree program, graduates must demonstrate:
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

3. An ability to communicate effectively with a range of audiences.

4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

In compliance with ABET accreditation standards.

College of Engineering and Computer Science

Computer Engineering MS

Student Learning Outcomes

An ability to apply knowledge of advanced mathematics, science & engineering.

Ability to communicate effectively.

An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Computer Science BS

PROGRAM EDUCATIONAL OBJECTIVES

1. Technical Growth – Graduates will be successful in foundational and modern computing practices, integrate into the local and global workforce, promote growth and prosperity of the regional economy in the state and national level, and have passion for the profession and its growth.

2. Professional Skills – Graduates will continue to demonstrate the professional skills and communicative abilities necessary to be competent employees, assume leadership roles, and have career success and satisfaction.

3. Professional Attitude and Citizenship – Graduates will become productive members of society with high ethical and professional standards, who make sound technical or managerial decisions.

STUDENT OUTCOMES
Upon completion of the degree program, all B.S. graduates will have an ability to:

1. analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

3. communicate effectively in a variety of professional contexts.

4. recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

5. function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

6. apply computer science theory and software development fundamentals to produce computing-based solutions.

In compliance with ABET accreditation standards.

College of Engineering and Computer Science

Computer Science MS

Student Learning Outcomes

Demonstrate knowledge and competence in such fundamental areas of computer science as algorithms, design and analysis, computational theory, computer architecture, and software engineering.

Be able to analyze a problem, define the computing requirements appropriate to its solution, and apply design principles in the construction of software systems of varying complexity following systematic processes.

Be able to survey an area of interest, identify the key issues and problems of the selected area through review of academic literature, and provide potential solutions to the issues and problems.

Be able to function effectively on a team to accomplish a common goal.

Be able to communicate effectively with a range of audiences in both written and oral form.

Be able to understand and weigh possible social impacts of their work.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Electrical Engineering BS

PROGRAM EDUCATIONAL OBJECTIVES

1. Technical Growth: Graduates will be successful in modern engineering practice, integrate into the local and global workforce, and contribute to the economy of California and the nation.

2. Professional Skills: Graduates will continue to demonstrate the professional skills necessary to be competent employees, assume leadership roles, and have career success and satisfaction.

3. Professional Attitude and Citizenship: Graduates will become productive citizens with high ethical and professional standards, who make sound engineering or managerial decisions, and have enthusiasm for the profession and professional growth.

STUDENT OUTCOMES
Upon completion of the degree program, graduates must demonstrate:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. An ability to communicate effectively with a range of audiences

4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

In compliance with ABET accreditation standards.

College of Engineering and Computer Science

Electrical Engineering MS

Student Learning Outcomes

Academic preparation and proficiency in mathematics, science, and engineering.

Ability to identify, formulate, design, implement, and solve engineering problems that meet desired needs within realistic constraints and solve problems in modern engineering practice.

Ability to integrate into the local and global workforce, communicate effectively by using written, oral, and electronic methods and assume leadership roles.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Engineering (General) BS

Student Learning Outcomes

An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

An ability to communicate effectively with a range of audiences.

An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Engineering Management MS

Student Learning Outcomes

Engineering Management is a new program. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Environmental Engineering MS

Student Learning Outcomes

Understanding basic principles and ability to conduct calculations related to environmental engineering (a) Understanding basic principles (chemistry, hydraulics, and/or hydrology) related to environmental engineering (b) Ability to conduct calculations on fate and transport of chemicals in the environment and/or hydraulics/hydrology related to environmental engineering.

Understanding environmental regulations, engineering ethics, environmental impact report, and project management (a) Understanding environmental regulations, engineering ethics, and components of an environmental impact report (b) Ability to write technical articles related to environmental regulations/policies and impact statement (c) Understanding the components of project management.

Understanding contemporary pollution management issues and ability to conduct conceptual design of sustainable treatment processes (a) Understanding contemporary environmental issues related to pollution management (air, water, wastewater, solid waste, stormwater runoff, and/or site contamination)   (b) Ability to conduct conceptual design of sustainable treatment processes (air, water, wastewater, solid waste, stormwater runoff, and/or site remediation).

Ability to develop a research plan, write technical articles, and conduct oral presentation (a) Ability to conduct literature search and development of a research plan (b) Ability to write technical papers and conduct oral presentation.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Mechanical Engineering BS

PROGRAM EDUCATIONAL OBJECTIVES

1. Technical Growth: Graduates will be successful in modern engineering practice, integrate into the local and global workforce, and contribute to the economy of California and the nation.

2. Professional Skills: Graduates will continue to demonstrate the professional skills necessary to be competent employees, assume leadership roles, and enjoy career success and satisfaction.

3. Professional Attitude and Citizenship: Graduates will become productive citizens with high ethical and professional standards, make sound engineering or managerial decisions, and have enthusiasm for the profession and professional growth.

STUDENT OUTCOMES
Upon completion of the degree program, graduates must demonstrate:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

In compliance with ABET accreditation standards.

College of Engineering and Computer Science

Mechanical Engineering MS

Student Learning Outcomes

An ability to apply knowledge of advanced mathematics, science & engineering to identify, formulate and solve advanced engineering problems.

Ability to communicate effectively.

An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

A knowledge of contemporary issue.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Engineering and Computer Science

Software Engineering MS

Student Learning Outcomes

Demonstrate knowledge and competence in such fundamental areas of computer science as algorithms, design and analysis, computational theory, computer architecture, and software engineering.

Analyze a problem, define the computing requirements appropriate to its solution, and apply design principles in constructing software systems of varying complexity following systematic processes.

Survey an area of interest, identify the key issues and problems of the selected area through a review of academic literature, and provide potential solutions to the issues and problems.

Function effectively on a team to accomplish a common goal.

Communicate effectively with a range of audiences in both written and oral form.

Understand and weigh possible social impacts of their work.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Curriculum and Instruction MS

Student Learning Outcomes

Candidates reflect on their own assumptions, including implicit and explicit biases, to expand their knowledge of power, privilege, and positionality in society.

Candidates critically examine the curricular and pedagogical value of family assets and community engagement to develop the professional expertise and leadership skills to advocate and collaborate for educational equity and justice within their schools and communities.

Candidates analyze, create and implement anti-bias curriculum, including digital curriculum and materials, that develops academic content knowledge and disrupts oppressive practices by integrating inclusive, equitable, humanizing, anti-racist, and culturally and linguistically sustaining elements in diverse learning environments

Candidates will analyze, critique, and apply knowledge of theoretical and historical research, relevant theories, and pedagogies related to asset-based, equity- and justice-oriented teaching and learning in education.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Educational Leadership and Administration MS

Student Learning Outcomes

Learning leaders center critical consciousness and sociopolitical action in their work. They draw on a range of asset-based frameworks and use varied and often underutilized data sources (e.g. community cultural wealth (CCW), street data) to design, support, and enhance robust learning experiences for and with students, teachers, staff, and their communities.

Change partners leverage continuous improvement approaches to understand, disrupt, and enact meaningful organizational change bidirectionally and inclusively with their community and educational partners.

Organizational leaders drive improvement in learning systems by creating a shared vision, shared power, team learning, and developing leadership capacity through culturally and linguistically relevant strategies.

Community-centered leaders support students, teachers, and the community by integrating community assets, cultural diversity, and history into all aspects of their leadership practice and co-building and sustaining mutually beneficial partnerships with the community, beyond institutionalized spaces.

Relationship Builders develop, foster, and sustain empowering relationships with the school community. They have knowledge of the structures, protocols, and tools for bringing partners together and communicating in a way that is culturally responsive and inclusive.

Anti-Racist Policy Advocates actively seek and make changes that disrupt and re-shape systems perpetuating racial and other inequities and building systems of justice. They affirm and empower educational partners to harness the resources needed to navigate and dismantle an unjust world with empathy, savvy, and agency to create an educational system that is just, equitable, and inclusive.

Reflective thinkers connect learning and create processes that facilitate authentic, vulnerable inquiry at the personal, team, and organizational levels. This includes active, persistent, participatory reflection on one's positionality including thinking rigorously about your recent/past experiences that speak to informing your next steps and your next actions.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Educational Leadership Ed.D. (Community College)

Student Learning Outcomes

Candidates will analyze broad societal problems that indirectly or directly affect the lives of students, especially students who have been historically marginalized, by critically examining (a) bias and privilege and (b) higher education problems that negatively affect students, staff, faculty, and/or communities.

Candidates will demonstrate use of an anti-racist lens and culturally and linguistically relevant strategies, including educational technologies and community engagement, to provide equitable opportunities and supports necessary for all learners to attain high-quality outcomes.

Candidates will generate new knowledge and strategies for organizations and communities focused on disrupting oppressive educational practices and enacting meaningful organizational change that supports students, faculty, staff, and leaders as citizens in a highly diverse, global, interconnected, and digital world.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Educational Leadership Ed.D. (P-12)

Student Learning Outcomes

Candidates will analyze broad societal problems that indirectly or directly affect the lives of students, especially students who have been historically marginalized, by critically examining (a) bias and privilege and (b) higher education problems that negatively affect students, staff, faculty, and/or communities.

Candidates will demonstrate use of an anti-racist lens and culturally and linguistically relevant strategies, including educational technologies and community engagement, to provide equitable opportunities and supports necessary for all learners to attain high-quality outcomes.

Candidates will generate new knowledge and strategies for organizations and communities focused on disrupting oppressive educational practices and enacting meaningful organizational change that supports students, faculty, staff, and leaders as citizens in a highly diverse, global, interconnected, and digital world.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Educational Technology Online MS

Student Learning Outcomes

Graduates of the MS in Educational Technology program will establish relationships with other educators (ISTE-C :Collaborator) to gain an understanding of the role technology plays in the larger learning community (Equity Ability-Recognize).

Graduates of the MS in Educational Technology program will inspire and support other educators to use technology to promote equity and inclusion in digital learning contexts. (ISTE-C: Change Agent).

Graduates of the MS in Educational Technology program will use data to make informed decisions about technology related practices (ISTE-C: Data Driven Decisions Maker) to ensure equity and inclusive digital learning materials and contexts (Equity Ability- Recognize and Respond).

Graduates of the MS in Educational Technology program will design digital learning experiences that meet the unique needs of diverse learners (ISTE-C : Learning Designer).

Graduates of the MS in Educational Technology program will establish digital equity and inclusion goals related to their teaching practice and reflect on this practice (ISTE-C: Connected Learner).

Graduates of the MS in Educational Technology program will become confident and proactive leaders (Equity AbilitySustain) of educational technology within schools and communities. (ISTE-C Professional Learning Facilitator).

Graduates of the MS in Educational Technology program will use their role as a technology leader to model digital citizenship and to advocate against inequitable digital access, use, and contexts. (ISTE-C Professional Learning Facilitator; ISTE-C Connected Learner, Equity Ability - Cultivate and Redress).

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Higher Education MS

Student Learning Outcomes

Higher education master's degree students will (a) understand their own cultures; (b) understand the cultures and characteristics of college students; (c) and understand how institutional structures can reinforce systems of oppression and (d) begin to develop equitable and inclusive educational programs that provide access and support success for all students, especially historically underrepresented student populations.

Higher education master's degree students will (a) apply culturally and linguistically relevant leadership and organization theories; and (b) apply core management and community engagement skills (e.g., planning, environmental scanning, legal compliance, risk management, use of technology, budgeting, and human resource management) to student affairs practice.

Higher education master's degree students will demonstrate use of an anti-racist lens in the (a) analysis, synthesis, and evaluation of current research; (b) design of processes to assess student learning and development in the co-curriculum; and (c) planning and implementation of formative and summative program evaluations and research projects.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Instructional Design and Technology MS

Student Learning Outcomes

Candidates will critically examine their implicit and explicit biases as part of their learning to advance their knowledge of strategies that support diverse learners.

Candidates will apply appropriate software design strategies in the development and implementation of digital instructional technologies to support and empower diverse communities.

Candidates will design and implement Universal Design for Learning principles that support the needs of diverse learners as citizens in a highly diverse and digital world.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Literacy and Reading Education MS

Student Learning Outcomes

Possess the knowledge to become competent equity-minded specialized literacy professionals.

Become reflective and responsive practitioners who advocate for social change.

Become committed and caring professionals who work in collaborative settings to design and implement instruction and assessment that is culturally responsive, sustaining, and values the language and literacy experiences in the family, schools, and communities.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Special Education MS

Student Learning Outcomes

Students will explain and critique the impact of implicit and explicit bias and privilege on their choices of curriculum, materials, assessments and pedagogies.

Students will apply knowledge of anti-racist teaching and learning in planning and implementing fair, respectful, non-discriminatory and equitable, inclusive and humanizing learning environments for students with disabilities and their families.

Students will demonstrate skills necessary for investigating and applying anti-racist teaching practices, including advocating for equity at school, district, and community levels.

Students will demonstrate skills necessary for promoting the dismantling of systems of oppression by providing avenues for families and students to develop and understand intersecting social identities, providing tools that will allow them to become powerful self-advocates for equitable opportunities in order to gain independence and full engagement in society for persons with disabilities.

Students will demonstrate knowledge of and competence with culturally and linguistically relevant teaching and learning strategies, including educational technologies, to create learning environments and activities that promote high-quality outcomes for students with disabilities.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Transformative Teaching in Secondary Education MS

Student Learning Outcomes

Students will effectively leverage technology, authentic and inclusive assessment, and community resources to promote critical thinking, challenge culturally and linguistically hegemonic practices, and promote empowerment and academic achievement among culturally, linguistically, and experientially diverse students.

Students will analyze, critique, and apply knowledge of theoretical and historical research, relevant theories, and pedagogies related to asset-based, equity- and justice-oriented teaching and learning in secondary education.

Students will evaluate, create, adapt, and transform curriculum and assessments to foreground authentic, academically rigorous, linguistically inclusive, and contextually relevant content and skills.

Students will reflect upon their own practice and develop the professional expertise and agency necessary to promote and advocate for educational equity and justice within and beyond their schools, communities, and profession.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Education

Urban Learning BA

Student Learning Outcomes

The Urban learning BA is a new program. For the most up-to-date information, please contact the program.

College of Health and Human Development

Athletic Training MS

Student Learning Outcomes

Perform a comprehensive examination on a standardized patient to clinically diagnose: a) musculoskeletal pathologies and b) general medical conditions

Design a therapeutic intervention based on the patient's status and goals, using a disablement model

Appraise and synthesize the existing evidence to make clinical decisions that best meet patient needs

Demonstrate effective communication skills, including contemporary documentation techniques, as part of an inter-professional team to provide coordinated care

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Child and Adolescent Studies BS

Student Learning Outcomes

Students can describe and/or explain relevant theories, concepts and related research findings.

Students can identify and describe normative development and individual and group differences.

Students can describe biological, psychological, cultural and environmental influences on development.

Students can identify and describe key components of cultural competence.

Students will be able to identify, access, analyze and synthesize relevant sources, including research studies.

Students write effectively in APA style, taking purpose and audience into account.

Students make effective oral presentations, taking purpose and audience into account.

Students can effectively apply theories, concepts, and research findings to promote child well-being across diverse populations.

Students can identify relevant ethical principles and legal issues and the impact of possible actions in real-world situations.

Students can describe effective case, administrative, legislative, and media advocacy strategies to promote the well-being of children, adolescents, and families.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Counseling MS

Student Learning Outcomes

Students will be able to: critically analyze research methodology and the professional literature regarding a counseling topic; construct an original research project; and demonstrate professional writing skills in accordance with APA guidelines.

Students will be able to demonstrate knowledge of: (a) the historical and philosophical underpinnings of the counseling profession; (b) ethical and legal guidelines of the profession; and (c) professional counseling credentialing, certification, and licensure.

Students will be able to: demonstrate awareness of the social and cultural influences on human behavior; demonstrate effective counseling skills; evaluate clients' progress; and recognize and mitigate countertransference.

Students will be able to: demonstrate awareness of the major cultural influences on human behavior, how those intersect with the mental health of their clients, and how they influence their own perceptions and biases regarding clients.

Students will demonstrate knowledge of counseling theories and a bio-psycho-sociocultural framework and apply them to case conceptualization. They will demonstrate the ability to appropriately use the DSM-5 (diagnostic manual of mental disorders). They will construct relevant treatment plans.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Human Services BS

Student Learning Outcomes

Students will be able to effectively integrate and apply theory and practice.

Students will employ research designs and evaluation methods in the human services field to draw reasonable evidence based conclusions.

Students will demonstrate cultural competence in working collaboratively and ethically with diverse populations in the human services field.

Students will demonstrate effective written communication related to human services using proper APA formatting and free of grammatical errors.

Students demonstrate effective oral communication on topics related to human services.

Integrate information technology in support of human services implementation.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Kinesiology BS

Student Learning Outcomes

Students can relate and apply the foundational ways kinesiology examines physical activity and exercise.

Students understand how subdisciplines of natural science are applied in kinesiology to physical activity and exercise at different points of the human lifespan.

Students understand how subdisciplines of humanities and social sciences are applied in kinesiology to physical activity and exercise in diverse cultural settings.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Kinesiology MS

Student Learning Outcomes

Students can analyze and evaluate different types of research questions using appropriate data analysis techniques.

Students can explain and evaluate research designs and methodology as relevant in the academic and/or professional environment.

Students can explain, synthesize and share knowledge from at least one subdiscipline within kinesiology.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Nursing BS

Student Learning Outcomes

Plans and/or provides patient-centered, empathic, and coordinated care that contributes to safe and high quality outcomes.

Accesses, analyzes, and interprets information (theoretical, research, other) at the individual/family and community level to improve patient health outcomes.

Uses a systematic approach to analyze real or potential problems for the purpose of developing, testing, and evaluating innovative solutions within a variety of healthcare settings.

Uses communication theories/techniques and demonstrates communication/collaboration with colleagues, transdisciplinary groups, including the use of informatics, to promote relationships with individuals/families and communities.

Engages in ethical reasoning and actions to promote advocacy, collaboration, social justice, and leadership as a healthcare professional.

Demonstrates accountability for self and nursing practice including continuous engagement in life-long learning.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Nursing MS

Student Learning Outcomes

Integrates a wide range of theories and knowledge from nursing and other disciplines to develop a comprehensive and holistic approach, implement advanced roles, and continue life-long learning.

Uses a systematic approach to identify, analyze and diagnose real or potential problems with a variety of health care settings, and develop, evaluate and test possible solutions based upon highest level of evidence available, allowing for innovative solutions to the problem.

Accesses, analyzes, and interprets information (theoretical, research, other) at the individual/family and community level to provide high quality health care, initiate change, and improve nursing practice and health care outcomes.

Manages communication, including the uses of informatics, with clients, colleagues, and diverse groups to foster effective collaboration to promote optimal health outcomes in individuals/families/communities.

Evaluates ethical decision making from a person and organization perspective, develops an understanding of how these two perspectives may create conflict of interest, and acts to resolve them.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Nursing Practice DNP

Student Learning Outcomes

Develops and evaluates practice approaches based upon theory as well as to integrate nursing science with ethics, biophysical sciences, & psychosocial sciences as the basis for nursing practice.

Selects, designs, or uses programs to evaluate and monitor patient care systems. Develops and executes evaluation plans involving data extraction from practice information systems and databases.

Designs, delivers, and evaluates evidence-based care/therapeutic interventions to improve patient or population outcomes based upon advanced clinical judgment, systems thinking, and accountability.

Analyzes epidemiological, biostatistical, environmental, and other forms of data as well as evidence-based reports as they relate to the health of individuals and populations. Evaluates care delivery models/strategies using concepts related to community, environment, occupational health, and cultural and socioeconomic dimensions of health.

Appraises literature in order to implement best practices, apply relevant findings to develop practice guidelines, and disseminate findings from practice through scholarship.

Demonstrates leadership in policy development at multiple levels, educates others about nursing/health policy/patient care outcomes, and advocates within healthcare arenas for social justice/equity/ethical procedures.

Employs leadership & consultative skills with intraprofessional and interprofessional teams to create change in healthcare and healthcare delivery systems. Leads interprofessional teams in the analysis and evaluation of practice and organizational issues.

Develops and evaluates ways of managing ethical and organizational/system dilemmas in patient care and health care organizations emphasizing practice, ongoing improvement of health outcomes, and ensuring patient safety.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Public Health BS

Student Learning Outcomes

Describe major theories associated with health science and public health.

Describe the steps involved in planning, implementing and evaluating research based health interventions.

Identify and access evidence based information sources relevant to specific health issues.

Analyze statistical, epidemiological and qualitative data to promote population health.

Apply theories, research findings and best practices to promote health with diverse communities.

Analyze ethical issues that arise in the field of health science and public health.

Make effective oral presentations taking into account diverse stakeholders.

Write effectively taking purpose and audience into account.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Public Health MPH

Student Learning Outcomes

Interpret and apply research findings to inform public health practice, policy, and/or research.

Select qualitative and quantitative data collection methods appropriate for a given public health context.

 Advocate for policies that will improve the health of diverse populations.

Select methods to design and/or evaluate public health programs based on population needs.

Describe the means by which structural biases, such as racism and social inequities, undermine health.

Employ sytems-thinking tools to address inquities in public health.

Effectively communicate audience-appropriate public health content.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Health and Human Development

Social Work MSW

Student Learning Outcomes

The PO-01 assesses an implicit learning environment and climate that respects and affirms diversity, equity and inclusion.

Students identify as a professional social worker and conduct oneself accordingly.

Students engage with diversity and difference in social work practice.

Students demonstrate competency in practice-informed research and research-informed practice.

Students demonstrate competency in policy practice and policy-informed practice.

Students demonstrate competency in engaging with individuals, groups, organizations and communities.

Students demonstrate competency in assessing individuals, families, groups, organizations, and communities.

Students demonstrate competency in intervening individuals, families, groups, organizations, and communities.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

American Studies BA

Students will demonstrate an understanding of the concept of culture by analyzing the functioning of American cultural texts within historic contexts, using knowledge developed by different disciplines.

Students will express an understanding of American cultural diversity that recognizes the historical construction and functioning of categories of identity such as race, ethnicity, gender, sexuality, class, or region.

Students will become informed citizens who understand American political and social issues within historical, cultural, and global contexts.

Students will interpret and analyze critically a range of cultural documents and expressive forms.

Students will design and carry out an original interdisciplinary research project exploring American culture that makes use of both primary and secondary sources.

Students will communicate complex ideas about American culture in clear and well-organized written papers and oral presentations.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

American Studies MA

Student Learning Outcomes

Students will demonstrate an advanced understanding of how scholars approach cultural evidence, critically evaluating scholarly theories and methods.

Students will demonstrate a sophisticated understanding of cultural processes in history, analyzing the dynamics of diverse cultural interactions and change over time.

Students will design and carry out an original interdisciplinary research project at an advanced level, communicating their own conclusions in a clearly-written essay.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Anthropology BA

Student Learning Outcomes

Students are able to write an essay at the "proficient" to "advanced" level of the CSUF Senate Writing Rubric.

Students will be able to identify, understand, and apply theories from Anthropology.

Students can identify and interpret a real world problem using a holistic and comparative approach.

Students can develop a research question or problem statement within a theoretical framework.

Students can interpret archaeological evidence of human behavior using the methodological principles of archaeological excavation and chronology building.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Anthropology MA

Student Learning Outcomes

Students are able to write an essay at the "proficient" to "advanced" level of the CSUF Senate Writing Rubric.

Students will be able to identify, understand, and apply theories from Anthropology

Students will be able to identify, understand, and apply methods from Anthropology.

Students earning a master's degree from Anthropology have mastered anthropological theories, concepts, issues, written communication skills, and oral communication skills.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Comparative Literature BA

Student Learning Outcomes

Analyze and interpret texts from a variety of genres, as informed by such critical traditions as rhetorical, stylistic, and formal analysis; theory; and historicism.

Write clear, cogent and rhetorically effective prose for a variety of purposes and audiences.

Demonstrate the ability to locate relevant research materials, effectively integrate this information into one's written work, and cite it appropriately.

Demonstrate a working knowledge of major writers, periods, and genres of at least two literary traditions (one tradition can be an Anglophone tradition), and be able to place important works and genres in their historical context.

Demonstrate ability to analyze literary, cultural, historical, and linguistic relations between two linguistically distinct literary traditions (one tradition can be an Anglophone tradition), highlighting especially the diversity and interconnectedness of literary traditions, as well as the significance of translation.   Demonstrate ability to make an informed comparison of literature and another discipline or field (including but not limited to: visual arts, literary and cultural theory, philosophy, religion, anthropology, history, communications, etc.).

Demonstrate a working knowledge of the various theories of comparative literature and the major works of literary theory that have informed comparative literature as a discipline.

College of Humanities and Social Sciences

Criminal Justice BA

Student Learning Outcomes

Students are able to demonstrate the ability to communicate clearly, effectively, and persuasively, both orally and in writing.

Students have the intellectual literacy to solve problems about crime, policy and justice.

Students have a comprehensive understanding of crime, policy and justice.

Students can take a critical perspective on how criminal justice systems affect different communities.

Students are able to effectively lead or contribute as part of a group.

Students demonstrate an awareness of how implicit and explicit biases impact and influence individuals, groups, laws, policies, and criminal justice systems around the globe.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

English BA

Student Learning Outcomes

Analyze and interpret texts from a variety of genres, as informed by such critical traditions as rhetorical, stylistic, and formal analysis; theory; and historicism.

Write clear, cogent and rhetorically effective prose for a variety of purposes and audiences.

Demonstrate the ability to locate relevant research materials, effectively integrate this information into one's written work, and cite it appropriately.

Demonstrate a working knowledge of the major writers, periods and genres of British and American literature and be able to place works in their historical, cultural, theoretical, and rhetorical contexts.

Demonstrate a working knowledge of the structure of the English language.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

English MA

Student Learning Outcomes

Demonstrate sophistication in analyzing and interpreting texts, as informed by such critical traditions as rhetorical, stylistic, and formal analysis; theory; and historicism.

Demonstrate a mastery of the techniques and conventions of scholarly, persuasive, and/or creative writing.

Demonstrate the ability to find relevant research materials, evaluate scholarly arguments, and contribute to current scholarship.

Demonstrate an appropriate level of expertise in literary studies, composition-rhetoric, or creative writing, including an in-depth understanding of major writers, movements, stylistic trends, forms, and concepts.

Demonstrate competence in professional skills and practices necessary to pursue careers in a variety of fields, including teaching, editing, publishing, and writing, and/or to pursue further graduate study.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Environmental Studies MS

Student Learning Outcomes

Students will demonstrate their ability to analyze environmental issues through social, economic, and ecological lenses.

Students will demonstrate their ability to apply quantitative and qualitative methods as appropriate to environmental research.

Students will demonstrate their ability to utilize information resources and technology to organize and evaluate environmental research.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Ethnic Studies BA (African American Studies)

Student Learning Outcomes

Students will identify a range of cultural documents and expressive forms and describe their significance to African American culture.

Identify and explain the significance of key individuals and events that shaped the culture and history of people of African descent in the U.S. and wider diaspora.

Examine the ways that race, gender, class and/or sexuality intersect in the lives of individuals and their communities.

Integrate Ethnic Studies methodologies into one's written work.

Communicate complex arguments, ideas, and research findings in well-organized written papers.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Ethnic Studies BA (Asian American Studies)

Student Learning Outcomes

Acquire knowledge of the historical and contemporary experiences of Asian Americans and Pacific Islanders.

Demonstrate competence in using multidisciplinary and interdisciplinary perspectives in the study of Asian Americans and Pacific Islanders.

Demonstrate the ability to think critically about the issues and concerns of Asian Americans and Pacific Islanders.

Demonstrate the ability to synthesize new ideas bringing together experience and theories.

Communicate clearly, effectively, and persuasively, both orally and in writing.

Work effectively as a leader or as members of a collaborative group to achieve a goal.

Demonstrate the ability to apply concepts toward creating social change affecting Asian Americans and Pacific Islanders.

Acquire experience in civic engagement or service-learning.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Ethnic Studies BA (Chicana and Chicano Studies)

Student Learning Outcomes

Demonstrate knowledge of the field of Chicana/o Studies, including critical, theoretical, and interdisciplinary methodologies.

Improve oral presentation skills.

Demonstrate an understanding of social justice movements and/or advance civic engagement in social justice practices with communities.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

French BA

Student Learning Outcomes

Synthesize varying critical perspectives and distinguish among them using appropriate terminology.

Formulate sound arguments and support them with appropriate evidence and frames of reference (e.g. linguistic, literary, historical, political, economic, etc.).

Analyze language as a system and as a tool for communication as well as recognize discrete language segments and their historical development.

Identify historical and cultural trends as well as their role in shaping cultural expressions.

Communicate orally and in writing in the target language in an effective and culturally-appropriate manner, in a variety of academic, social, and professional circumstances.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Geography BA

Student Learning Outcomes

Students are able to articulate the definitions of, connections between, and differences among fundamental concepts, models and theories in geography.

Students are able to identify and explain patterns and processes of human and physical geography including the diversity of the earth's peoples and environments, and the interactions between humanity and the earth's environments.

Students can apply mapping and geospatial technologies to analyze geographic data and solve geographic problems.

Students can critically assess, interpret, and analyze geographic research.

Students can clearly and effectively communicate geographic knowledge and research in writing, orally, and/or visually.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Geography MA

Student Learning Outcomes

Students acquire in-depth knowledge of at least one subfield of geography (physical, human, or geospatial techniques).

Students can clearly and effectively communicate in-depth geographic knowledge and research in writing, orally, and/or visually.

Students are able to conduct high-quality independent research on geographic issues.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Gerontology MS

Student Learning Outcomes

Application of Gerontological Theories, Concepts and Issues.

College of Humanities and Social Sciences

History BA

Student Learning Outcomes

Students can explain causes and consequences of change over time across different eras.

Students can explain causes and consequences of change over time in and across different global regions.

Students can explain causes and consequences of change over time within diverse societies.

Students can devise a research project driven by a thesis, informed by historiographical contexts, and structured by a clearly articulated analytical framework appropriate to the field of study.

Students can defend a historical interpretation with critical use of primary and secondary sources.

Students can effectively communicate historical knowledge and understanding orally.

Students can effectively communicate historical knowledge and understanding in writing.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

History MA

Student Learning Outcomes

Students will synthesize a range of historiographical debates about a topic or event.

Students will critically evaluate and apply methodologies and theories appropriate to the discipline.

Students will design a research plan using historical methods and resources.

Students will demonstrate historical knowledge and original analysis in essays or projects that follow the professional standards appropriate to the discipline.

Students will communicate historical knowledge and analysis orally according to professional standards.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Humanities and Social Sciences BA

Student Learning Outcomes

Students will demonstrate an understanding of ways in which culture, difference, and otherness are socially constructed.

Students will demonstrate critical thinking to apply to apply theoretical perspectives and concepts to new situations and contexts, including historical and cross-cultural.

Students will demonstrate the importance of being a responsible citizen of the global society with a sensitivity to political, economic, and cultural experience.

Students will evaluate the local and global impacts of differing cultural-historical trends by identity such as gender, ethnicity, race, sexual orientation, religion, class, age, and intersectionality.

Students will communicate clearly, effectively, and persuasively in writing.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Japanese BA

Student Learning Outcomes

Synthesize varying critical perspectives and distinguish among them using appropriate terminology.

Formulate sound arguments and support them with appropriate evidence and frames of reference (e.g. linguistic, literary, historical, political, economic, etc.).

Analyze language as a system and as a tool for communication as well as recognize discrete language segments and their historical development.

Identify historical and cultural trends as well as their role in shaping cultural expressions.

Communicate orally and in writing in the target language in an effective and culturally-appropriate manner, in a variety of academic, social, and professional circumstances.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Latin American Studies BA

Student Learning Outcomes

Write effectively about Latin America's geography, peoples, history, cultures, economies, societies, art history and institutions from an interdisciplinary perspective using appropriate use of sentence structure, content, organization, and purpose as is particularly relevant to argumentative writing in English, Spanish, and/or Portuguese.

Perform research from an interdisciplinary perspective understanding the foundational knowledge in anthropology, art history, Chicana/o studies, economics, geography, history, political science, Portuguese, or Spanish, as it pertains to Latin America and in accordance with the academic path followed in obtaining the bachelor of arts degree. Demonstrate the ability to access written and electronic information about Latin America in different disciplines and follow disciplinary requirements in documenting resources. Gain the critical skills necessary to formulate arguments and demonstrate their validity through research-based essay papers and oral presentations following methodologies in the humanities and social sciences.

Read critically to identify textual ideologies from different historical moments, languages, and power structures in order to demonstrate an understanding of biases inherent in a text's contents and how those ideologies have influenced Latin America's economic and political dependence as well as its social institutions and cultural accomplishments.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Liberal Studies BA

Student Learning Outcomes

Present ideas and subject matter coherently in written communication.

Compare and contrast significant concepts, themes and arguments from the arts and humanities.

Compare and contrast significant concepts, themes and arguments from the social sciences.

Compare and contrast significant concepts, themes and arguments from the natural sciences.

Explain interdisciplinary connections among and within the three subject areas: arts and humanities, social sciences, natural sciences.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Linguistics BA

Student Learning Outcomes

Understand how language is structured, particularly to what extent languages share a universal structural base and to what extent they differ from one another Understand how language is used, and the factors accounting for variation in language use Understand how language is learned by children in first language acquisition and by adults in second language acquisition Understand how language changes over time and the principles of historical linguistics.

Demonstrate the ability to analyze problems, both linguistic and otherwise, and to find and critically evaluate alternative solutions,

Demonstrate the ability to present ideas in effectively written form.

Demonstrate the ability to find in textbooks and research materials — paper and electronic — the kinds of information relevant to a given problem or issue, linguistic or otherwise, and to integrate that information into one's own written work to support one's argument while giving appropriate credit to the source of the information.

Have a working knowledge of the subdisciplines of linguistics dealing with the organization of language, i.e., phonetics, phonology, morphology, syntax and semantics Have a working knowledge of the subdisciplines of linguistics dealing with language use, change and acquisition, especially sociolinguistics, historical linguistics and psycholinguistics.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Linguistics MA

Student Learning Outcomes

Develop a rigorous concept of language in all its aspects, as well as an interdisciplinary sensibility demonstrating an advanced understanding of connections among the social sciences and the humanities.

Gain a thorough understanding of linguistic diversity and commonalities by examining both, the internal variation in a given language, particularly in English, as well as cross-linguistic variation.

Demonstrate advanced research, writing, and expressive skills to see connections among complex materials, and to clearly communicate an understanding of their underlying meanings.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Philosophy BA

Student Learning Outcomes

The student demonstrates thorough and competent understanding of original texts. The student uses sound arguments and strong reasoning to support assertions. The student makes careful selection and presentation of evidence and argument to support assertions, and (when applicable) includes carefully constructed refutations of the opposing view.

The student's paper has a clear thesis, which is well developed by means of good structure, succinct expression of ideas and a competent, fluent writing style. The language is clear and direct, avoiding vague or superfluous expressions that adversely affect its main purpose. The paper contains few grammatical or spelling errors.

Students shall be knowledgeable about specific periods of historical philosophy, specific major currents of the twentieth century philosophical investigation, and some specific methodologies employed by philosophers.

All students will be exposed to issues of culture, ethnicity, and gender. They will be able to cultivate a global perspective. Students shall have the ability to examine and critically assess normative standards governing social relations, practices, and institutions, including a wide range of human activities dependent upon value judgments.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Political Science BA

Student Learning Outcomes

Students apply political science methods correctly.

Students must be able to explain the relevance for politics and policy making of formal political institutions, rules, and processes in the U.S. and cross-nationally.

Analyze the roles or class, race, gender, religion, and ideology in the U.S. and cross-nationally.

Students must demonstrate that they can write proficiently at an upper-division college level.

Students demonstrate information competence.

Students understand and use interdisciplinary knowledge important to the study of politics.

Students can define basic political science concepts and theories.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Political Science MA

Student Learning Outcomes

Understand the relevance for politics and policy-making of formal political institutions, rules, and processes in the U.S. and cross-nationally.

Understand the relevance for politics and policy-making of non-institutional aspects of politics, including the roles of class, race, gender, religion, and political beliefs in the U.S. and cross-nationally.

Understand the relevance of classical and contemporary political philosophy to the study of politics.

Demonstrate proficiency in the use of various tools of analysis, including library research, computer skills, and data analysis techniques.

Be able to think and write clearly, critically, and intelligently about topics relevant to political science and to defend claims in writing and orally at a level appropriate to a graduate degree.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Psychology BA

Student Learning Outcomes

Students can identify appropriate basic research methods to test hypotheses empirically.

Students can apply psychological theory to scientific questions and real-world problems.

Students can find and evaluate relevant literature.

Students can demonstrate proficient writing skills, including scientific writing in APA style.

Students can manage data and analyze data using appropriate statistical methods.

Students can analyze psychological research and theory in relation to their own personal development.

Students can identify how diversity impacts individual and social behavior.

Students can employ appropriate ethical principles in psychological settings.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Psychology MA

Student Learning Outcomes

Develop strong critical thinking skills with regard to evaluating psychological research incorporating theoretical framework.

Employ statistical knowledge to analyze research data and develop conclusions.

Demonstrate proficient and compelling writing skills, including scientific writing in APA style.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Psychology MS

Student Learning Outcomes

Students will know the legal and ethical responsibilities related to clinical practice; apply these in actual clinical situations.

Students will master the diagnostic and conceptual framework for mental disorders and related terminology; accurately diagnose actual clinical patients.

Students will apply a variety of dominant theoretical frameworks for describing personality, predicting behavior, treatment planning and guiding clinical interventions.

Students will employ therapeutic techniques from a variety of theoretical models for intervening with children, adolescents and adults in individual, family and group modalities.

Students will be sensitive to the influence of ethnicity and cultural values on clinical practice; consider cultural and ethnic influences while working with therapy cases.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Public Administration BA

Student Learning Outcomes

Students will demonstrate the ability to define basic concepts and theories of public administration.

Students will identify the role of personnel administration and public budgeting and finance in public administration.

Students will demonstrate knowledge of the role of the administrative function in political systems.

Students will demonstrate the ability to use quantitative research methods of public administration and public policy analysis.

Students will understand how to acquire, analyze, and assess public organization information.

Students will demonstrate effective written communication skills.

Students will understand the role of public administration officials as participants in public policy making and implementation.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Public Administration MPA

Student Learning Outcomes

Students will be able to address public problems using the major theories underlying the field of public administration, including those related to governance structures, federalism and intergovernmental relations, and intersectoral relations.

Students will be able to articulate and apply a public service perspective in the demonstration of knowledge related to the structures, components, goals, and objectives of the public sector.

Students will be able to describe the policy process through the application of appropriate theories, including those related to the role of stakeholders, administrators, bureaucracies, and the challenges of administration.

Students will be able to participate in the policy process by demonstrating the ability to find and use a variety of appropriate resources to research policy issues.

Students will be able to participate in the policy process through the analysis and application of quantitative and qualitative empirical evidence to determine the effectiveness of a public policy or program.

Students will be able to identify and assess ethical problems in public administration, and create appropriate solutions based on moral reasoning and public service values.

Students will be able to demonstrate the ability to use graphical and tabular methods to summarize and interpret data, as well as analyze and interpret basic univariate and bivariate data.

Students will be able to conduct and evaluate survey research, identify strengths and weaknesses in research design, and articulate an understanding of both substantive and statistical significance.

Students will be able to demonstrate an understanding of the major components of a personnel system within an organization, including the nuances of effective motivation, behavior, and management.

Students will be able to effectively communicate and productively interact with diverse teams and diverse communities.

Students will be able to articulate and appreciate the value of diversity in the public sector and the communities it serves.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Religious Studies BA

Student Learning Outcomes

Students will be able to describe the developments, worldviews, and practices of religions in an academic manner.

Students will be able to write and orally present well-organized critical and analytical research projects related to the study of religion.

Students will be able to evaluate the significance of how differing religious worldviews and religious trends affect their communities.

Students will be able to express an understanding of the ways religion as a global phenomenon impacts different spheres of life.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Sociology BA

Student Learning Outcomes

Students will apply key sociological concepts.

Students will compare, contrast and critique major theoretical and epistemological orientations in sociology including functionalism, conflict, interactionism, and feminism.

Students will demonstrate critical thinking from various sociological perspectives, such as reflecting on their social location, evaluating the implicit assumptions of everyday life, challenging commonsense understandings, and assessing the structure of an argument.

Students will show clear and effective written and oral communication skills.

Students will demonstrate knowledge of qualitative and quantitative research design and methods and evaluate their appropriate use.

Students will use sociological knowledge and skills to engage with local and global communities for the purpose of social justice.

Students will demonstrate a critical understanding of power, privilege, and oppression across a range of cultures, human experiences, and the intersections of social locations and historical experiences, including their own.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Sociology MA

Student Learning Outcomes

Graduate students will demonstrate, through application to real world problems, their grasp of sociological theory.

Graduate students will demonstrate in-depth knowledge in a specific domain of sociological research specialization (e.g. gender, race/ethnicity, education, inequality, political sociology, etc.).

Graduate students will apply core concepts in an area of research specialization through the interpretation of sociological data, using such concepts.

Graduate students will either design and implement a qualitative or quantitative research program, with data generation or data analysis, and the writing-up of research findings, or assess design options in the comprehensive exam.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Spanish BA

Student Learning Outcomes

Synthesize varying critical perspectives and distinguish among them using appropriate terminology.

Formulate sound arguments and support them with appropriate evidence and frames of reference (e.g. linguistic, literary, historical, political, economic, etc.).

Analyze language as a system and as a tool for communication as well as recognize discrete language segments and their historical development.

Identify historical and cultural trends as well as their role in shaping cultural expressions.

Communicate orally and in writing in the target language in an effective and culturally-appropriate manner, in a variety of academic, social, and professional circumstances.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Spanish MA

Student Learning Outcomes

Formulate and sustain sound, original arguments and support them with compelling evidence and appropriate frames of reference (e.g. linguistic, literary, historical, political, economic, etc.).

Identify historical, cultural, and linguistic trends as well as their role in shaping language and cultural expressions.

Effectively use the target language and appropriate terminology from the field in academic and professional settings to explain concepts of a varying degree of complexity both orally and in writing.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Teaching English to Speakers of Other Languages (TESOL) MS

Student Learning Outcomes

M.S. in TESOL students will be able to sequence and teach lessons using appropriate instructional resources and teaching strategies.

MS in TESOL students will be able to use problem-solving and critical thinking in analyzing ESL/EFL instructional settings and materials, along with awareness of relevant language policy issues, to plan curriculum and integrate assessment with learning.

MS in TESOL students will demonstrate mastery of philosophical and research foundations of second language acquisition and pedagogy, as well of as the nature of language and English language systems.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Humanities and Social Sciences

Women and Gender Studies BA

Student Learning Outcomes

Students will be able to develop and apply critical thinking skills to gender issues, and demonstrate the ability to understand an issue, analyze the problems embedded therein, and articulate the issue using feminist theory.

Articulate and critique multiple theoretical frameworks, such as feminism, critical race feminism, queer theory, masculinity, and sexuality studies.

Understand and apply feminist epistemology and research methods demonstrated through independent research using standard English grammar and coherent written organization.

Analyze and evaluate texts and ideas in both oral and written modalities.

Demonstrate leadership skills by organizing and implementing projects.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Biochemistry BS

Student Learning Outcomes

Recognize that all matter is composed of atoms whose inherent periodic properties determine their interactions and combinations into compounds with specific molecular structure, chemical function and physical properties.

Explain the various ways that chemists represent and test chemical knowledge in models, theories, mathematical relationships and symbolic notations.

Illustrate the principles of safe practices and ethical use of scientific knowledge, materials and procedures, and explain their impact on a diverse society.

Demonstrate literacy in concepts underlying fundamental analytical instrumentation and instrumentation techniques used in chemistry and biochemistry.

Discriminate between equlibrium and nonequilibrium systems using fundamental thermodynamic laws and kinetics.

Demonstrate the ability to generate and collect data and information through designing and safely implementing hypothesis-driven experiments using contemporary methods and techniques.

Analyze, interpret, and retrieve data and appropriate literature, to develop critical thinking and problem solving skills.

Work effectively, independently and cooperatively to communicate data, concepts, skills and processes to experts and nonexperts in the field.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Biological Science BS

Student Learning Outcomes

Explain fundamental biological principles from the major areas of biology (cellular, molecular, physiological, organismal, ecological, and evolutionary).

Design a biological research study to answer a testable question, using appropriate and ethical research procedures for data collection and analysis.

Communicate ideas related to biological concepts, or the results of biological investigations, using professionally appropriate oral (e.g. poster or oral presentations), visual (e.g. graphs, tables), and written (e.g. research proposal, journal article) formats.

Demonstrate intellectual independence by distinguishing between reliable and unreliable sources of information while respecting alternative possibilities and explanations.

Engage in projects that require contributions of multiple individuals, resulting in a product that reflects an ability to collaborate and communicate.

Discuss the intersection of biology and society, including the impact of biological issues on society, the importance of responsible conduct of research, and the role of society in supporting scientific endeavors.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Biology MS

Student Learning Outcomes

Demonstrate expertise in a biological discipline through critical evaluation of primary literature and knowledge of appropriate research approaches and techniques.

Demonstrate expertise in a biological discipline through the design, execution, analysis, and interpretation of an independent ethical research project.

Communicate the results and conclusions of an independent research project orally and in writing to appropriate professional audiences.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Chemistry BA

Student Learning Outcomes

Recognize that all matter is composed of atoms whose inherent periodic properties determine their interactions and combinations into compounds with specific molecular structure, chemical function and physical properties.

Explain the various ways that chemists represent and test chemical knowledge in models, theories, mathematical relationships and symbolic notations.

Illustrate the principles of safe practices and ethical use of scientific knowledge, materials and procedures, and explain their impact on a diverse society.

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Work effectively, independently and cooperatively to communicate data, concepts, skills and processes to experts and nonexperts in the field.

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College of Natural Sciences and Mathematics

Chemistry BS

Student Learning Outcomes

Recognize that all matter is composed of atoms whose inherent periodic properties determine their interactions and combinations into compounds with specific molecular structure, chemical function and physical properties.

Explain the various ways that chemists represent and test chemical knowledge in models, theories, mathematical relationships and symbolic notations.

Illustrate the principles of safe practices and ethical use of scientific knowledge, materials and procedures, and explain their impact on a diverse society.

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Analyze, interpret, and retrieve data and appropriate literature, to develop critical thinking and problem solving skills.

Work effectively, independently and cooperatively to communicate data, concepts, skills and processes to experts and nonexperts in the field.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Chemistry MA

Student Learning Outcomes

Appropriately employ models, theories, mathematical relationships and symbolic notations that are used to represent and test knowledge in the chemical and biochemical sciences.

Demonstrate an awareness of the diversity and interdisciplinary nature of the chemical and biochemical sciences and a competent understanding of the fundamental principles in related disciplinary fields through participation in coursework, seminars and group meetings.

Employ the principles of safe practices and ethical use of scientific knowledge, materials and procedures.

Demonstrate mastery of fundamental and advanced instrumentation and techniques used in his/her disciplinary field of chemistry and biochemistry.

Analyze, interpret, and retrieve data from the primary and review literature, to develop critical thinking and problem solving skills for raising and addressing scientific question(s).

Demonstrate the ability to generate and collect data and information through designing and safely testing original hypothesis using contemporary methods and techniques.

Work independently and cooperatively on an original research project to collect, interpret, analyze, organize, and present high quality data for an original thesis.

Effectively communicate ideas, concepts, results and conclusions from the original research project in a written thesis, oral defense and poster presentations.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Chemistry MS

Student Learning Outcomes

Demonstrate in-depth knowledge and an understanding of scientific questions in a primary area of expertise in the chemical and biochemical sciences and place the thesis research in the context of the current state of knowledge of the field.

Appropriately employ models, theories, mathematical relationships and symbolic notations that are used to represent and test knowledge in the chemical and biochemical sciences.

Demonstrate an awareness of the diversity and interdisciplinary nature of the chemical and biochemical sciences and a competent understanding of the fundamental principles in related disciplinary fields through participation in coursework, seminars and group meetings.

Employ the principles of safe practices and ethical use of scientific knowledge, materials and procedures.

Demonstrate mastery of fundamental and advanced instrumentation and techniques used in his/her disciplinary field of chemistry and biochemistry.

Analyze, interpret, and retrieve data from the primary and review literature, to develop critical thinking and problem solving skills for raising and addressing scientific question(s).

Demonstrate the ability to generate and collect data and information through designing and safely testing original hypothesis using contemporary methods and techniques.

Work independently and cooperatively on an original research project to collect, interpret, analyze, organize, and present high quality data for an original thesis.

Effectively communicate ideas, concepts, results and conclusions from the original research project in a written thesis, oral defense and poster presentations.

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College of Natural Sciences and Mathematics

Computational Applied Mathematics MS

Student Learning Outcomes

Use mathematical and computational methods to solve real-world problems.

Communicate mathematical and computational findings in written and oral forms.

Be competitive in the job market and/or be ready to pursue a Ph.D. degree.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Earth Science BA

Student Learning Outcomes

Produce and interpret a geological cross-section.

Model the function, interactions, and trends of Earth Systems: geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.

Apply mathematics, chemistry, biology and/or physics to help clarify the mechanisms behind major Earth systems.

Develop a hypothesis, collect, test, and analyze data, and summarize results.

Communicate geoscience concepts to peers and/or public both orally and written.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Geology BS

Student Learning Outcomes

Produce and interpret a geological cross-section.

Identify geological materials and explain their geologic significance.

Apply mathematics, chemistry, biology and/or physics to help clarify the mechanisms behind major geological systems.

Develop a hypothesis, collect, test, and analyze data, and summarize results.

Communicate geological concepts to peers and/or public both orally and written.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Geology MS

Student Learning Outcomes

Develop a hypothesis, collect, test, and analyze data, and summarize results.

Communicate geological concepts to peers and/or public both orally and written.

College of Natural Sciences and Mathematics

Mathematics BA

Student Learning Outcomes

Students will understand and construct mathematical proofs.

Students will demonstrate ability to communicate mathematics in written and oral forms.

Students will demonstrate ability to use mathematics to solve problems.

Students are competitive in the job market and/or in pursuing graduate education.

Students will be able to utilize technology when doing mathematics.

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Mathematics MA (Teaching Math Option)

Student Learning Outcomes

Make sense of problems, persevere in solving them, and pose other problems.

Be competitive in the job market, and/or be prepared to continue graduate studies at the Ph.D. level.

Communicate mathematics in written and oral forms.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Physics BS

Student Learning Outcomes

Students will solve problems by applying the primary physical theories: classical mechanics, thermodynamics, wave phenomena, electricity and magnetism, and modern physics.

Students will apply appropriate mathematical tools to solve physical problems.

Students will extract meaningful data from physical systems and construct conclusions through data analysis.

Students will clearly and concisely report scientific observations and analysis of experimental data.

Students will demonstrate the ability to work collaboratively to collect and interpret data and draw conclusions.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Physics MS

Student Learning Outcomes

Students will solve problems by applying the primary physical theories: classical mechanics, electrodynamics and quantum mechanics.

Students will demonstrate engagement in scientific inquiry by analyzing advanced physics questions and designing solutions to those questions.

Students will clearly and concisely report results and analysis from their research

Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.

College of Natural Sciences and Mathematics

Statistics MS

Student Learning Outcomes

Will be able to decipher and solve real world problems.

Will be able to utilize technology and statistical software to construct statistical models and perform statistical computations.

Will be able to communicate statistical findings in written and oral forms.

Will be competitive in the job market and/or be prepared to continue their graduate studies at the Ph.D. level.

*Retrieved from AMS February 16, 2024. For the most up-to-date information, please contact the program.