

Accounting (ACCT)

AS Degree in Accounting

1. Accumulate, record, and analyze financial data.
2. Prepare accurate reports for decision making and regulatory compliance.
3. Understand accounting and business terminology used in business scenarios, and be proficient with commonly used office software programs.

Certificate of Achievement in Accounting

1. Accumulate, record, and analyze financial data.
2. Prepare accurate reports for decision making and regulatory compliance.
3. Understand accounting and business terminology used in business scenarios, and be proficient with commonly used office software programs.

Certificate in Account Clerk

1. Utilize double entry bookkeeping system to record common business transactions.
2. Employ accounting and business terminology to describe business transactions and scenarios.
3. Record payables and receivables using QuickBooks or similar accounting programs.
4. Demonstrate proficiency with commonly used office software programs.

Certificate in Tax Preparer

1. Understand accounting and business terminology used in business scenarios, and be proficient with commonly used office software programs.
2. Recognize and apply basic state and federal income taxation laws to individual tax return forms.

Administration of Justice (AJ)

AS Degree in Administration of Justice

1. Explain the historical development and philosophy of law.
2. Perform legal research independently and interpret, analyze and defend appellate court decisions.
3. Communicate effectively in a variety of situations and prepare acceptable investigative reports.
4. Identify and describe modus operandi, basic crime scene investigation, proper identification and collection of evidence.
5. Describe interview and lawful interrogation techniques.

AS Degree in Court Personnel/Pre-law

1. Demonstrate an understanding of complex laws, court decisions, the court system and legal process and their impact on government, business and society.
2. Demonstrate effective critical thinking, analytical and problem solving skills.
3. Effectively interpret, integrate, synthesize and apply complex information from multiple sources.

AS Degree in Criminal Justice

1. Explain the historical development and philosophy of law.
2. Perform legal research independently and interpret, analyze and defend appellate court decisions.
3. Communicate effectively in a variety of situations, and prepare acceptable investigative reports.
4. Identify and describe modus operandi, basic crime scene investigation, proper identification and collection of evidence.
5. Describe interview and lawful interrogation techniques.

AS-T Degree in Administration of Justice

1. Explain the historical development and philosophy of law.
2. Perform legal research independently and interpret, analyze and defend appellate court decisions.
3. Demonstrate an understanding of the characteristics of crime and criminality, and the criminal justice system in the United States.

Certificate of Achievement in Administration of Justice

1. Explain the historical development and philosophy of law.
2. Perform legal research independently and interpret, analyze and defend appellate court decisions.
3. Communicate effectively in a variety of situations and prepare acceptable investigative reports.
4. Identify and describe modus operandi, basic crime scene investigation, proper identification and collection of evidence.
5. Describe interview and lawful interrogation techniques.

Certificate of Achievement in Court Personnel/Pre-law

1. Demonstrate an understanding of complex laws, court decisions, the court system and legal process and their impact on government, business and society.
2. Demonstrate effective critical thinking, analytical and problem solving skills.
3. Effectively interpret, integrate, synthesize and apply complex information from multiple sources.

Administration of Justice-Law Enforcement (AJLE)

AS Degree in Law Enforcement Academy - Basic

1. Demonstrate competency in 42 P.O.S.T. learning domains.
2. Demonstrate, through written exams, crime scene scenario testing, and manipulative skills, core competencies as mandated by P.O.S.T.
3. Demonstrate, through written exams, P.O.S.T. scenario testing, and manipulative skills, core competencies as mandated by P.O.S.T.

AS Degree in Law Enforcement Academy - Basic/Fish and Wildlife Emphasis

1. Meet or exceed the requirements as set forth by Peace Officer Standards and Training (P.O.S.T.) for California peace officer training.
2. Demonstrate, through written exams, crime scene scenario testing and manipulative skills, core competencies as mandated by P.O.S.T.
3. Demonstrate, through written exams, crime scene scenario testing and manipulative skills, core competencies as mandated by the California Department of Fish and Wildlife.

Certificate of Achievement in Law Enforcement Academy-Basic

1. Evaluate and manage their physical fitness and maintain a healthy lifestyle in order to safely and effectively perform peace officer duties.
2. Meet or exceed the basic training requirements of 42 comprehensive Learning Domains as set forth by the Commission on Peace Officer Standards and Training for entry level California peace officers.
3. Demonstrate the manipulative skills and core competencies mandated by the Commission on Peace Officer Standards and Training for entry level California peace officers.

Certificate of Achievement in Law Enforcement Academy - Basic/Fish and Wildlife Emphasis

1. Meet or exceed the requirements as set forth by Peace Officer Standards and Training (P.O.S.T.) for California peace officer training.
2. Demonstrate, through written exams, crime scene scenario testing and manipulative skills, core competencies as mandated by P.O.S.T.
3. Demonstrate, through written exams, crime scene scenario testing and manipulative skills, core competencies as mandated by the California Department of Fish and Wildlife.

Agricultural Engineering Technology (AET)

AS Degree in Mechanized Agriculture

1. Identify and demonstrate proper use, care, and adjustment of common and precision tools and machines found in a mechanized agriculture shop.
2. Operate wheel and track type tractors safely and properly.
3. Perform operator level maintenance and adjustments of tractor systems.
4. Analyze and match the proper tractor and equipment to do the job correctly and efficiently.

Certificate of Achievement in Heavy Equipment Operator Technician

1. Explain the principles of operation and maintenance required to operate and support modern agricultural and industrial powered equipment.
2. Demonstrate the ability to safely and correctly maintain and operate a range of agricultural and industrial powered equipment.
3. Evaluate career opportunities, prospective employers, and skills necessary to achieve employment.

Certificate of Achievement in Mechanized Agriculture

1. Identify and demonstrate proper use, care, and adjustment of common and precision tools and machines found in a mechanized agriculture shop.
2. Operate wheel and track type tractors safely and properly.
3. Perform operator level maintenance and adjustments of tractor systems.
4. Analyze and match the proper tractor and equipment to do the job correctly and efficiently.

Agriculture Business (AB)

AS Degree in Agricultural Business

1. Accumulate, record, and analyze agricultural financial data.
2. Analyze specific agricultural markets to explain and predict changes in price and economic behavior.

AS Degree in Agriculture Business

1. Accumulate, record, and analyze agricultural financial data.
2. Analyze specific agricultural markets to explain and predict changes in price and economic behavior.
3. Make effective business decisions using a systematic, information-based approach.

AS-T Degree in Agriculture Business

1. Accumulate, record, and analyze agricultural financial statements
2. Analyze specific markets to explain and predict changes in price and economic behavior
3. Demonstrate core management principles and apply them to different working scenarios.
4. Apply core marketing principles to the unique structure of the agriculture sector.
5. Demonstrate effective verbal and written communication in an agricultural business environment.
6. Recognize consumer and producer responsiveness to changing market conditions.

Certificate of Achievement in Agriculture Business

1. Accumulate, record, and analyze agricultural financial data.
2. Analyze specific agricultural markets to explain and predict changes in price and economic behavior.
3. Make effective business decisions using a systematic, information-based approach.

Agriculture Science (AGS)

AS Degree in Agriculture Science

1. Identify and apply the principles and techniques of modern crop and livestock management.
2. Describe fundamental care practices for animals, including selection, handling and management.
3. Distinguish common types of agricultural pests including weeds, diseases, and insects.
4. Calibrate plant protection equipment including hand-held, ATV, trailer, and orchard sprayers.
5. Select appropriate fertilizers, basic application methods, and recognize their effect on plants and the environment.
6. Describe how breeding, genetics, and biotechnology are used to increase agricultural production.
7. Demonstrate scientific evaluation skills including interpreting graphs and data from scientific papers.

AS Degree in Agriculture and Natural Resources

1. Identify and describe environmental conditions influencing local crop production.
2. Explain the effects of temperature, water, spacing and fertility on plant growth and production.
3. Evaluate the role of soil fertility in an ecological production system.
4. Describe and analyze the major categories and sources of air and water pollution and explain how these pollutants are hazardous to human health, vegetation and all of life on earth.

Anthropology (ANTH)

AA-T Degree in Anthropology

1. Identify and discuss major topics relevant to Physical Anthropology, including human and primate evolution and variation among hominids.
2. Define culture and apply the concept to a broad cross-cultural understanding of human behavior.
3. Examine past cultural systems through analysis of physical cultural remains.
4. Describe and analyze human linguistic systems and the influence of language on human perceptions of the world.

Art (ART)

AA Degree in Arts

1. Employ technical skills, creativity, critical thinking, and conceptual problem solving in completing independent projects in the fields of Visual Art, Design, and/or Art History.
2. Analyze, compare, and synthesize significant global ideas and primary original works of art and architecture from diverse cultures and time periods.
3. Produce, present, and describe a portfolio consisting of original artworks and/or writing about art.
4. Demonstrate expert and safe use of a variety of equipment, materials, software, and tools, when performing, writing about, and/or creating works of art.

AA Degree in Ceramics

1. Employ technical skills, creativity, critical thinking, and conceptual problem solving in completing independent visual art projects in the medium of ceramics.
2. Analyze, compare, and synthesize significant global ideas and primary original works of ceramic art from diverse cultures and time periods.
3. Produce, present, and describe a portfolio consisting of original ceramic artworks.
4. Demonstrate proficient and safe use of a variety of equipment, materials, and tools when creating works of ceramic art.

AA-T Degree in Art History

1. Identify, examine, and assess representative works of art and architecture from diverse world cultures and time periods employing appropriate art historical terminology.
2. Analyze, discuss, and differentiate works of art and architecture in terms of historical context.
3. Analyze, discuss, and distinguish the roles of art, architecture, and the artist from diverse world cultures and time periods.
4. Employ college-level writing skills, creativity, and critical thinking in completing independent projects in the field of Art History.

AA-T Degree in Studio Arts

1. Employ technical skills, creativity, critical thinking, and conceptual problem-solving in completing independent projects in the fields of Visual Art, Design, and Studio Arts.
2. Analyze, compare, and synthesize significant global ideas and primary original works of art and architecture from diverse cultures and time periods.
3. Produce, present, and describe a portfolio consisting of original artworks and/or writing about art.
4. Demonstrate expert and safe use of a variety of equipment, materials, software, and tools, when performing, writing about, and/or creating works of art.

Certificate of Achievement in Ceramics

1. Employ technical skills, creativity, critical thinking, and conceptual problem solving in completing independent visual art projects in the medium of ceramics.
2. Analyze, compare, and synthesize significant global ideas and primary original works of ceramic art from diverse cultures and time periods.
3. Produce, present, and describe a portfolio consisting of original ceramic artworks.
4. Demonstrate proficient and safe use of a variety of equipment, materials, and tools when creating works of ceramic art.

Automotive Technology (AUT)

AS Degree in Automotive Technology

1. Explain the principles of operation and maintenance required to repair all systems of the modern automobile.
2. Safely and correctly maintain, diagnose and repair specific areas of the vehicle.

Certificate of Achievement in Automotive Technology

1. Explain the principles of operation and maintenance required to repair all systems of the modern automobile.
2. Safely and correctly maintain, diagnose and repair specific areas of the vehicle.

Biology (BIOL)

AS Degree in Biological Science

1. Critically analyze and accurately express an understanding of scientific work in the context of the scientific method.
2. Demonstrate academic skills needed for success in biology after transfer.
3. Apply knowledge of fundamental biological principles such as evolution and taxonomy and ecological, physiological and molecular processes.
4. Correctly employ scientific techniques and correctly use scientific equipment.

AS-T Degree in Biology

1. Critically analyze and accurately express an understanding of scientific work in the context of the scientific method.
2. Demonstrate academic skills needed for success in biology after transfer.
3. Apply knowledge of fundamental biological principles such as evolution and taxonomy and ecological, physiological and molecular processes.
4. Correctly employ scientific techniques and correctly use scientific equipment.

Business (BUS)

AS Degree in Business Administration

1. Discuss the context in which businesses operate and the impacts of environmental factors (including competitors and economic markets) on businesses.
2. Use appropriate business terminology to describe the functional areas of business enterprises.
3. Assess business scenarios using a systematic, evaluative, quantitative, ethical and information-based approach.
4. Evaluate the economic, social and competitive impacts of business decisions.
5. Prepare, analyze, interpret and discuss an entity's basic financial statements as a basis for business decisions.
6. Demonstrate analytical, teamwork, oral and written communication skills and ethical and professional conduct.

AS Degree in Business Management

1. Identify business terms and concepts, and effectively communicate using the language of business.
2. Make effective business decisions using a systematic, evaluative, information-based approach.
3. Develop and exhibit high standards of professional practice, demonstrating awareness of ethical and social responsibilities in today's multicultural, team-oriented, rapidly changing environment.

AS Degree in Marketing

1. Identify business terms and concepts, and effectively communicate using the language of business.
2. Make effective business decisions using a systematic, evaluative, information-based approach.
3. Develop and exhibit high standards of professional practice, demonstrating awareness of ethical and social responsibilities in today's multicultural, team-oriented, rapidly changing environment.

AS Degree in Small Business/Entrepreneurship

1. Identify business terms and concepts, and effectively communicate using the language of business.
2. Make effective business decisions using a systematic, evaluative, information-based approach.
3. Develop and exhibit high standards of professional practice, demonstrating awareness of ethical and social responsibilities in today's multi-cultural, team-oriented, rapidly-changing environment.

AS-T Degree in Business Administration

1. Discuss the context in which businesses operate and the impacts of environmental factors (such as economic markets and technological, regulatory and competitive forces) on businesses.
2. Use appropriate business terminology to describe the functional areas of business enterprises.
3. Assess business scenarios using a systematic, evaluative, quantitative, ethical and information-based approach.
4. Evaluate the legal, economic and social impacts of business decisions.
5. Prepare, analyze, interpret and discuss an entity's basic financial statements, as a basis for business decisions.
6. Demonstrate analytical, teamwork, oral and written communication skills and ethical and professional conduct.

Certificate of Achievement in Business Management

1. Identify business terms and concepts, and effectively communicate using the language of business.
2. Make effective business decisions using a systematic, evaluative, information-based approach.
3. Develop and exhibit high standards of professional practice, demonstrating awareness of ethical and social responsibilities in today's multicultural, team-oriented, rapidly changing environment.

Certificate of Achievement in Marketing

1. Identify business terms and concepts, and effectively communicate using the language of business.
2. Make effective business decisions using a systematic, evaluative, information-based approach.
3. Develop and exhibit high standards of professional practice, demonstrating awareness of ethical and social responsibilities in today's multicultural, team-oriented, rapidly changing environment.

Certificate of Achievement in Retail Management

1. Define the terms, principles and theories relating to retail planning, strategy and implementation.
2. Conduct a retail audit to demonstrate mastery of course concepts including customer buying behavior, retail planning, strategy, store layout, visual merchandising, and operations.
3. Analyze a retail marketing strategy and its appropriateness given target market(s).

Certificate in Business on the Web

1. Understand business terms and concepts, and effectively communicate using the language of business.
2. Make effective web-based business decisions using a systematic, evaluative, information-based approach.

Certificate in Human Resources

1. Analyze theories and strategies for maximizing employee productivity and motivation.
2. Identify and describe federal and state compliance requirements relating to payroll and human resource management.
3. Identify and demonstrate high standards of professional practice, demonstrating awareness of ethical and social responsibilities in today's multi-cultural, team-oriented, rapidly-changing environment.

Certificate in Small Business Institute

1. Assess business opportunities and determine their feasibility and potential using tools such as financial and competitive analysis.
2. Conduct small business marketing research, using primary and secondary resources.
3. Write a comprehensive business plan that provides an organized overview of the venture and identifies key business strategies and tactics.
4. Define business terms and concepts, and effectively communicate using the language of business.

Business Computer Information Systems (BCIS)

AS Degree in Business Information Worker

1. Manage office information and records.
2. Communicate professionally and work effectively in a team
3. Produce business documents with appropriate formatting using word processing software.
4. Create spreadsheets with financial functions and charting.
5. Plan and deliver individual or team oral presentations for business meetings.
6. Use email and calendaring software to communicate and manage time.
7. Apply the features and functions of web-based tools efficiently and effectively in order to meet the desired goals and outcomes of business.

AS Degree in Legal Office Administration

1. Identify and explain the difference among the six areas law.
2. Demonstrate workflow processes of a legal environment.
3. Analyze and assess legal clients' needs to determine appropriate solutions.
4. Apply computer skills to legal office activities.
5. Utilize proper legal writing skills in all client and colleague communication.

AS Degree in Medical Office Administration

1. Apply knowledge of medical terminology to perform outpatient/physician diagnostic coding, and determine outpatient/procedural coding based on the abstraction of medical records.
2. Analyze and interpret medical information and apply sound decision-making skills pertaining to the appropriate ICD and CPT codes needed to maximize compensation for services rendered.
3. Apply effective listening, verbal, written, interpersonal, and technological communication skills which prepare them for the outpatient medical workplace.
4. Describe the outpatient medical workplace environment and function in that environment as a knowledgeable, skilled, and professional team member.

Certificate of Achievement in Business Information Worker

1. Manage office information and records.
2. Communicate professionally and work effectively in a team.
3. Produce business documents with appropriate formatting using word processing software.
4. Create spreadsheets with financial functions and charting
5. Plan and deliver individual or team oral presentations for business meetings.
6. Use email and calendaring software to communicate and manage time
7. Apply the features and functions of web-based tools efficiently and effectively in order to meet the desired goals and outcomes of business.

Certificate of Achievement in Legal Office Administration

1. Identify and explain the difference among the six areas of law.
2. Analyze and assess legal clients' needs to determine appropriate solutions.
3. Apply computer skills to legal office activities.
4. Utilize proper legal writing skills in all client and colleague communication.

Certificate of Achievement in Medical Office Administration

1. Apply knowledge of medical terminology to perform outpatient/physician diagnostic coding, and determine outpatient/procedural coding based on the abstraction of medical records.
2. Analyze and interpret medical information and apply sound decision-making skills pertaining to the appropriate ICD and CPT codes needed to maximize compensation for services rendered.
3. Apply effective listening, verbal, written, interpersonal, and technological communication skills which prepare them for the outpatient medical workplace.

Certificate in Basic Computer Competency

1. Apply knowledge of basic computer operations, use input technology, and apply knowledge of file management and the operating system.
2. Identify and describe current technologies used in today's businesses and apply these technologies to solve business problems, improve organizational productivity, and achieve the goals of business.
3. Demonstrate a minimum keyboarding skill of 25 words per minute.

Certificate in Business Information Worker

1. Solve mathematical problems; analyze and interpret data; and apply sound decision-making skills.
2. Identify and describe current technologies used in today's businesses and apply these technologies to solve business problems, improve organizational productivity, and achieve the goals of business.

Certificate in Legal Office Administration

1. Identify and explain the difference among the six areas of law.
2. Apply computer skills to legal office activities.

Certificate in Medical Office Administration

1. Analyze and interpret medical information and apply sound decision-making skills pertaining to the appropriate ICD and CPT codes needed to maximize compensation for services rendered.
2. Apply effective listening, verbal, written, interpersonal, and technological communication skills which prepare them for the outpatient medical workplace.

Chemistry (CHEM)

AS Degree in Chemistry

1. Demonstrate basic experimental knowledge through data gathering, judging the accuracy and reliability of data, creating informative graphs, and discussing the limitations of experimental designs.
2. Demonstrate basic analytical skills by interpreting graphs and schematics and diagnosing realistic physical problems.
3. Demonstrate conceptual understanding by being able to describe qualitatively the underlying causes of basic physical phenomena.

Child Development and Family Relations (CDF)

AS Degree in Child Development

1. Synthesize research-based theories including principles and practices of child development and learning.
2. Incorporate strategies for building respectful, reciprocal family and community relationships in order to engage society in the development and learning of children.
3. Exhibit the ability to use an assessment system encompassing a variety of strategies that provide information about program effectiveness and children's development, learning, interests, strengths and needs.
4. Apply principles of child development and positive guidance for planning inclusive, culturally relevant and appropriate curriculum and learning environments while integrating all developmental domains.
5. Identify and conduct themselves as Early Childhood professionals and commit to using the National Association for the Education of Young Children Code of Ethical Conduct and other professional standards while engaging in reflective practices as collaborative learners.

AS Degree in Early Childhood Education

1. Synthesize research-based theories including principles and practices of child development and learning.
2. Incorporate strategies for building respectful, reciprocal family and community relationships in order to engage society in the development and learning of children.
3. Exhibit the ability to use an assessment system encompassing a variety of strategies that provide information about program effectiveness and children's development, learning, interests, strengths and needs.
4. Apply principles of child development and positive guidance for planning inclusive, culturally relevant and appropriate curriculum and learning environments while integrating all developmental

domains.

5. Identify and conduct themselves as Early Childhood professionals and commit to using the National Association for the Education of Young Children Code of Ethical Conduct and other professional standards while engaging in reflective practices as collaborative learners.

AS-T Degree in Early Childhood Education

1. Synthesize research-based theories including principles and practices of child development and learning.
2. Incorporate strategies for building respectful, reciprocal family and community relationships in order to engage society in the development and learning of children.
3. Exhibit the ability to use an assessment system encompassing a variety of strategies that provide information about program effectiveness and children's development, learning, interests, strengths and needs.
4. Apply principles of child development and positive guidance for planning inclusive, culturally relevant and appropriate curriculum and learning environments while integrating all developmental domains.
5. Identify and conduct themselves as Early Childhood professionals and commit to using the National Association for the Education of Young Children Code of Ethical Conduct and other professional standards while engaging in reflective practices as collaborative learners.

AA-T Degree in Child and Adolescent Development

1. Synthesize research-based theories including principles and practices of child and adolescent development and learning.
2. Utilize critical thinking skills to analyze, evaluate, and make decisions concerning complex contemporary issues and the interactions among individuals and across societies.
3. Utilize scientific methodologies to research human development from infancy through adolescence.
4. Exhibit the ability to use evidence based assessment systems and curriculum planning systems to support children's learning and development.
5. Knowledge of development in all learning domains from conception through adolescent, including knowledge about typical and atypical development.
6. Demonstrates the ability to promote developmentally, culturally and linguistically appropriate strategies to address diverse approaches to learning.

Certificate of Achievement in Early Childhood Education

1. Synthesize research-based theories including principles and practices of child development and learning.
2. Incorporate strategies for building respectful, reciprocal family and community relationships in order to engage society in the development and learning of children.
3. Exhibit the ability to use an assessment system encompassing a variety of strategies that provide information about program effectiveness and children's development, learning, interests, strengths and needs.
4. Apply principles of child development and positive guidance for planning inclusive, culturally relevant and appropriate curriculum and learning environments while integrating all developmental domains.
5. Identify and conduct themselves as Early Childhood professionals and commit to using the National Association for the Education of Young Children Code of Ethical Conduct and other

professional standards while engaging in reflective practices as collaborative learners.

Certificate in Child and Family Studies

1. Describe the development, roles, and interaction patterns of children, youth, and families within their social systems;
2. Identify dimensions of diversity in children, youth, and families and recognize oppressive forces that hinder their positive development;
3. Describe the foundational health and nutritional needs of children 0-8 years of age;
4. Demonstrate professional standards of ethical conduct working with families;
5. Assume the role of change agents regarding issues, policies, & community needs that affect children, youth, and their families and;
6. Identify current trends and issues in parenting the child.

Certificate in Early Childhood Education

1. Identify and conduct themselves as Early Childhood professionals and commit to using the National Association for the Education of Young Children Code of Ethical Conduct and other professional standards while engaging in reflective practices as collaborative learners

Communication Studies (CMST)

AA Degree in Communication Studies

1. Demonstrate communication skills to connect, work and play well with others.
2. Communicate ethically.
3. Research, organize, and create messages using appropriate resources.
4. Effectively present formal and informal communication adapted to a variety of audiences and contexts.
5. Demonstrate critical thinking.

AA-T Degree in Communication Studies

1. Demonstrate communication skills to connect, work, and play well with others.
2. Communicate ethically.
3. Research, organize, and create messages using appropriate resources.
4. Effectively present formal and informal communication adapted to a variety of audiences and contexts.
5. Demonstrate critical thinking.

Computer Science (CSCI)

AS Degree in Computer Animation and Game Development

1. Identify and demonstrate the visualization techniques, ideation processes, and the tools and materials used to develop concepts for the video games and entertainment industries.
2. List and describe the formal and dramatic elements that comprise a well- designed video game and conceptualize and refine an idea for a video game.
3. Design and implement computer algorithms and applications using basic computation, input and output, control structures, and a variety of data structures in an object- oriented programming language.
4. Use a variety of artistic and technical techniques and tools to translate ideas into multimedia presentations.

AS Degree in Computer Programming

1. Design and implement basic software solutions using the building blocks of modern computer software systems.
2. Identify, describe, and apply a variety of software engineering paradigms and process models in the development of computer software solutions.
3. Design, implement, and test the functionality of relational databases.
4. Design, implement, and test the functionality of computer software in a variety of computer programming languages.
5. Design, implement, test, and maintain dynamic websites using client-side technologies, server-side technologies, and relational databases.

AS Degree in Computer Science

1. Describe the organizational structure of computer hardware and its connection to computer software.
2. Apply the structured approach to computer software system design.
3. Apply the object-oriented approach to computer software system design.
4. Document program source code following established conventions and standards.

AS Degree in Computer System Administration

1. Design and implement basic software solutions using the building blocks of modern computer software systems.
2. Apply the fundamental techniques of computer security to ensure account and data integrity.
3. Identify labor market needs and properly prepare for the most relevant industry certification exams.
4. Identify, describe, install, and maintain the fundamental hardware and software components of a modern computer system.
5. Install, configure, maintain, and network Microsoft desktop computer workstations.
6. Identify and describe connection-oriented network services and the functions of the Open Systems Interconnection (OSI) model.
7. Design, build, configure, and maintain small to medium-sized Cisco networks utilizing switches, routers, and WAN connections.
8. Implement a core Windows Server 2012 infrastructure in an existing enterprise environment.
9. Implement, manage, maintain and provision services and infrastructure in a Windows Server 2012 environment.

AS-T Degree in Computer Science

1. Describe the organizational structure of computer hardware and its connection to computer software.
2. Describe how formal tools of symbolic logic are used to model real-life situations and relate the ideas of mathematical induction to recursion and recursively defined structures.
3. Design, implement, test, and debug algorithms to solve a variety of problems.
4. Design, implement, test, and debug computer programs using fundamental constructs and a variety of data structures.
5. Apply structured and object-oriented approaches to the design and implementation of computer programs.

Certificate of Achievement in Computer Programming

1. Design and implement basic software solutions using the building blocks of modern computer software systems.
2. Identify, describe, and apply a variety of software engineering paradigms and process models in the development of computer software solutions.
3. Design, implement, and test the functionality of relational databases.
4. Design, implement, and test the functionality of computer software in a variety of computer programming languages.
5. Design, implement, test, and maintain dynamic websites using client-side technologies, server-side technologies, and relational databases.

Certificate of Achievement in Computer System Administration

1. Design and implement basic software solutions using the building blocks of modern computer software systems.
2. Apply the fundamental techniques of computer security to ensure account and data integrity.
3. Identify labor market needs and properly prepare for the most relevant industry certification exams.
4. Identify, describe, install, and maintain the fundamental hardware and software components of a modern computer system.
5. Install, configure, maintain, and network Microsoft desktop computer workstations.
6. Identify and describe connection-oriented network services and the functions of the Open Systems Interconnection (OSI) model.
7. Design, build, configure, and maintain small to medium-sized Cisco networks utilizing switches, routers, and WAN connections.
8. Implement a core Windows Server 2012 infrastructure in an existing enterprise environment.
9. Implement, manage, maintain and provision services and infrastructure in a Windows Server 2012 environment.

Certificate in Cisco Network Administration

1. Identify and describe connection-oriented network services and the functions of the Open Systems Interconnection (OSI) model.
2. Design, build, configure, and maintain small to medium-sized computer networks utilizing switches, routers, and WAN connections.
3. Identify labor market needs and properly prepare for the most relevant industry certification exams.

Certificate in Computer Support Technician

1. Identify, describe, install, and maintain the fundamental hardware and software components of a modern computer system.
2. Apply the fundamental techniques of computer security to ensure account and data integrity.
3. Identify and describe connection-oriented network services and the functions of the Open Systems Interconnection (OSI) model.
4. Identify labor market needs and properly prepare for the most relevant industry certification exams.

Certificate in Microsoft Server Administration

1. Implement a core Windows Server 2012 infrastructure in an existing enterprise environment.
2. Implement, manage, maintain and provision services and infrastructure in a Windows Server 2012 environment.
3. Identify labor market needs and properly prepare for the most relevant industry certification exams.

Cosmetology (COS)

AS Degree in Cosmetology

1. Safely and accurately use all equipment and products relating to the industry.
2. Demonstrate the most current methods and procedures using professional tools and equipment.
3. Apply necessary health and safety rules.
4. Demonstrate appropriate communication skills.
5. Demonstrate an orderly performance of all tasks and skills, establishing methodical habits without sacrificing artistic skills.

Certificate of Achievement in Cosmetology

1. Safely and accurately use all equipment and products relating to the industry.
2. Demonstrate the most current methods and procedures using professional tools and equipment.
3. Apply necessary health and safety rules.
4. Demonstrate appropriate communication skills.
5. Demonstrate an orderly performance of all tasks and skills, establishing methodical habits without sacrificing artistic skills.

Certificate in Cosmetology to Barbering Crossover

1. Demonstrate proper tool and equipment use and care.
2. Perform straight razor-holding positions and cutting strokes.
3. Demonstrate honing and strapping techniques.
4. Discuss the evolution of barbering.
5. Explain the difference between a standard shave, a once-over shave and a close shave from a standard shave.
6. Explain the primary purpose of barber laws, rules and regulations.
7. List the rules of professional ethics in barbering.
8. List important characteristics used to determine a mustache design.
9. Demonstrate and perform the following cutting techniques: fingers-and-shear, shear-over-comb, clipper cutting, clipper-over-comb, and razor cutting.
10. Perform standard cutting positions and strokes with a straight razor.
11. Demonstrate a facial and neck shave.
12. Discuss the art and science of men's hair cutting and styling.
13. Discuss general sanitation and safety precautions of shaving.

Certificate in Esthetician

1. Safely and accurately use all equipment and products relating to the industry.
2. Demonstrate the most current methods and procedures using professional tools and equipment.
3. Apply necessary health and safety rules.
4. Demonstrate appropriate communication skills.
5. Demonstrate an orderly performance of all tasks and skills, establishing methodical habits without sacrificing artistic skills.

Certificate in Manicuring

1. Safely and accurately use all equipment and products relating to the industry.
2. Demonstrate the most current methods and procedures using professional tools and equipment.
3. Apply necessary health and safety rules.
4. Demonstrate appropriate communication skills.
5. Demonstrate an orderly performance of all tasks and skills, establishing methodical habits without sacrificing artistic skills.

Drafting (DFT)

AS Degree in Drafting and CAD Technology

1. Describe the role of technical graphics in the engineering design process.
2. Produce dimensioned technical drawings using various techniques including computer-aided drafting (CAD), 3D modeling, and freehand sketching.
3. Read and interpret the information provided by technical drawings in architectural, engineering, construction, and manufacturing applications.
4. Produce a comprehensive project, 3D model, or set of drawings including specifications from a broad instruction set to an industry-based expectation for completeness and correctness.

Certificate of Achievement in Drafting and CAD Technology

1. Describe the role of technical graphics in the engineering design process and in the architectural design process.
2. Produce dimensioned technical drawings using various techniques including computer-aided drafting (CAD), 3D modeling, and freehand sketching.
3. Read and interpret the information provided by technical drawings in architectural, engineering, construction, and manufacturing applications.
4. Produce a project, architecture-based model from a given instruction set to an industry-based expectation for completeness and correctness.

Certificate in 3D Mechanical Applications

1. Use a solid modeling application like Solid Works or Autodesk Inventor to develop parts, assemblies and output annotated drawings.
2. Interpret and differentiate technical information provided on a manufacturing or fabrication print, including dimensions, tolerances, and specifications and other precision detail.
3. Explain and demonstrate the use of added tools for 3D modeling including simulation, conversion from CAD (computer aided drafting) and specialty tools like sheet metal development, weldment development as well as animation and motion.

Certificate in Architectural Drafting and Modeling

1. Read and interpret information provided by construction documents including: Plans, specifications, details and sections.
2. Properly setup a CAD (computer-aided drafting) application like AutoCAD with drafting settings to create, edit, and save drawing files.
3. Prepare a residential plan set with proper properties, layers, types and developments in model form with associated layouts for architectural applications.
4. Identify, create and modify different types of building elements, views, and rendered views using a 3D modeling tool for architecture .

Drama (DRAM)

AA-T Degree in Theatre Arts

1. Describe the historical evolution of theatre and identify a variety of theatrical disciplines, including playwright, actor, director, and technician.
2. Discuss theatre arts from classic to contemporary, including the growth of drama within the context of the human condition.
3. Use appropriately the terminology of acting and the theatre.
4. Analyze scripts as they pertain to performances.
5. Demonstrate proficiency in specific areas of technical expertise.
6. Collaborate with others to create theatre productions.
7. Apply standard practices of ensemble playing in both rehearsal and performance environments.
8. Analyze dramatic literature and productions to identify form and period.

Certificate in Theatre Arts

1. Describe the historical evolution of theatre and identify a variety of theatrical disciplines, including playwright, actor, director, and technician.
2. Use appropriately the terminology of acting and the theatre.
3. Collaborate with others to create theatre productions.
4. Apply standard practices of ensemble playing in both rehearsal and performance environments.

Economics (ECON)

AA-T Degree in Economics

1. Apply macro and microeconomic models to understand differing perspectives on how an economy as well as different industries operate.
2. Analyze how economic policy changes will effect an economy and specific industry structures.
3. Utilize economic data and specific economic coefficients to understand how markets operate efficiently.
4. Analyze markets to determine when they operate efficiently and when they fail.

Education (EDUC)

AA Degree in Liberal Studies

1. Describe the concepts and issues related to teaching diverse learners in today's contemporary schools, Transitional Kindergarten (TK) and Kindergarten through grade 12 (K-12).
2. Describe the ways in which arts, literature, philosophy, history or language reflect historical, intellectual and cultural contexts, as well as aesthetic values.
3. Use scientific principles to explain well-established fundamental biological or physical phenomena and analyze their underlying components.
4. Analyze and critically evaluate arguments and issues in terms of logical principles or other problem solving methodologies.

AA-T Degree in Elementary Teacher Education

1. Evaluate and apply Transitional Kindergarten 12th grade state-adopted curriculum standards and frameworks, and teach to a diverse population of students.
2. Design learning experiences based on an understanding of students' physical, cognitive, emotional, social, creative, cultural, and linguistic needs.
3. Utilize observations and assessments to monitor student progress and create developmentally appropriate curriculum for instruction.
4. Create and maintain an inclusive learning environment that supports all students academic and personal success.

Emergency Medical Services (EMS)

AS Degree in EMT - Paramedic

1. Demonstrate in the pre-hospital setting the ability to comprehend, apply, analyze and evaluate information relevant to their role as an entry level EMT-P.
2. Demonstrate in the pre-hospital setting technical proficiency in all skills necessary to fulfill the role of an entry level EMT-P.
3. Demonstrate in the pre-hospital setting personal behavior consistent with professional and employer expectations of an entry level EMT-P.

Certificate of Achievement in Emergency Medical Technician/Paramedic

1. Demonstrate in the pre-hospital setting the ability to comprehend, apply, analyze and evaluate information relevant to their role as an entry level EMT-P.
2. Demonstrate in the pre-hospital setting technical proficiency in all skills necessary to fulfill the role of an entry level EMT-P.
3. Demonstrate in the pre-hospital setting personal behavior consistent with professional and employer expectations of an entry level EMT-P.

Certificate in Emergency Medical Technician

1. Demonstrate the ability to comprehend, apply, analyze, and evaluate information relevant to their role as an entry level EMT.
2. Demonstrate technical proficiency in all skills necessary to fulfill the role of an entry level EMT.
3. Demonstrate personal behavior consistent with professional and employer expectations for the entry level EMT.

Engineering (ENGR)

AS Degree in Civil Engineering Technology

1. Describe the history, functions, and types of engineering.
2. Use survey equipment to measure and record angles and distances in the field.
3. Identify the physical, mechanical, and chemical properties and the applications of the materials commonly used in engineering practice.
4. Collect, analyze, and summarize data in a professional report.

AS Degree in Engineering

1. Use the tools of Mathematics and Physics to solve engineering problems.
2. Demonstrate an ability to develop engineering judgment in the solution of engineering problems by breaking problems down, solving each part, checking each solution and reassembling the problem for a final solution.
3. Safely use and accurately interpret the output of standard measuring devices.
4. Demonstrate knowledge of the general methods of problem solving using data gathered in the field.
5. Demonstrate the ability to write comprehensive reports to communicate the analysis of various materials.

Certificate of Achievement in Civil Engineering Technology

1. Describe the history, functions, and types of engineering.
2. Use survey equipment to measure and record angles and distances in the field.
3. Identify the physical, mechanical, and chemical properties and the applications of the materials commonly used in engineering practice.
4. Collect, analyze, and summarize data in a professional report.

English (ENGL)

AA Degree in Language Arts

1. Assess the applications of a Language Arts AA Degree for personal advancement in educational and/or professional goals.
2. Identify, employ and evaluate different frameworks and perspectives for analyzing and interpreting literature or communication artifacts. These frameworks may include political, socioeconomic, geographical, ethnic, cultural, ecological, psychoanalytical, historical, gender, sexuality, and genre development.
3. Demonstrate oral, aural and non-verbal competence as appropriate to the discipline, or language.
4. Define ethical communication and explain the principles that it encompasses, regardless the discipline, language or medium.
5. Research, organize and create written, oral, and non-verbal messages using appropriate resources.

AA-T Degree in English

1. Analyze themes within course texts and compare them to the ways these themes are treated in other course texts.
2. Synthesize analyses of specific details in particular works of literature in support of a clear, overall point or thesis.
3. Identify, employ and evaluate different frameworks for analyzing and interpreting literature. These frameworks may include political, socioeconomic, geographical, ethnic, cultural, ecological, psychoanalytical, historical, gender, and genre development.

English as a Second Language (ESL)

Noncredit Certificate of Competency in ESL

1. Communicate effectively in English.
2. Negotiate essential life exchanges and situations.
3. Establish personal, academic, and vocational goals.
4. Be prepared to pursue higher academic levels.

Noncredit Certificate of Completion in VESL

1. Communicate effectively in English.
2. Negotiate essential life exchanges and situations.
3. Establish personal, academic, and vocational goals.

Environmental Horticulture (EH)

AS Degree in Environmental Horticulture

1. Demonstrate competencies in irrigation design and construction.
2. Identify turf species and their recommended management styles.
3. Explain the principles of greenhouse glazing choices.

AS-T Degree in Agriculture Plant Science

1. Demonstrate basic experimental knowledge through data gathering and analysis to solve problems in the laboratory and in the field.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials, equipment operation, and tool safety.
3. Demonstrate mastery of general plant science skills for technical employment in the plant science management industry (agronomy, pomology, viticulture or nursery).
4. Apply the principles of ecology, soil science, and plant science to crop management problems. Develop integrated pest management programs for specific crops.

Certificate of Achievement in Environmental Horticulture

1. Demonstrate competencies in irrigation design and construction.
2. Identify turf species and their recommended management styles.
3. Explain the principles of greenhouse glazing choices.

Certificate of Achievement in Landscape/Turfgrass Technician

1. Identify common warm and cool season turfgrass species and their uses along with substitutes for turfgrasses.
2. Formulate and implement a turfgrass management program for a wide variety of applications such as lawns, sports and golf course turfgrasses.

Certificate of Achievement in Nursery Technician

1. Select and correctly use florist tools, equipment and materials.
2. Design and construct arrangements used in the floral industry today.
3. List and analyze the costs associated with any floral design along with the appropriate markup to determine sale price.
4. Identify energy usage for heating, cooling and lighting various greenhouses as a cost of doing business.
5. Describe the scheduling of crop cycles including propagation start up, days to maturity, target market, price points, fertilizer and pesticide needs.
6. Calculate square footage needed for various crops, as they move through the growing cycle, to understand cost inputs as compared to potential revenues generated.

Certificate of Achievement in Plant Protection

1. Safely and accurately use all equipment and products relating to the plant protection industry.
2. Demonstrate the most current methods and procedures in calibration of agriculture equipment.
3. Apply necessary health and safety rules from the Environmental Protection Agency and the California Department of Pesticide Regulation (DPR).
4. Demonstrate appropriate communications skills.
5. Demonstrate an orderly performance of all tasks and skills, establishing methodical habits from state DPR laws and regulations.

Fashion (FASH)

AS Degree in Fashion Merchandising

1. Analyze and describe the fashion industry including innovations, careers, current trends, the impact of globalization and technology, and the expanding roles of designers.
2. Analyze, describe, and apply concepts in the business of buying, distributing and selling of fashion merchandise from the manufacturing level through to the retailer and, ultimately, the consumer.
3. Demonstrate command of visual presentation or production, and create a resume or relevant portfolio to be used to market him/herself in the fashion industry.

Certificate of Achievement in Fashion Merchandising

1. Analyze and describe the fashion industry including innovations, careers, current trends, the impact of globalization and technology, and the expanding roles of designers.
2. Analyze, describe, and apply concepts in the business of buying, distributing and selling of fashion merchandise from the manufacturing level through to the retailer and, ultimately, the consumer.
3. Demonstrate command of visual presentation or production, and create a resume or relevant portfolio to be used to market him/herself in the fashion industry.

Certificate in Clothing Construction

1. Select appropriate fabrics and notions suitable to specific garment designs.
2. Drape, draft or manipulate flat patterns to create accurate garment patterns.
3. Lay patterns correctly and economically onto markers or fabric.
4. Construct garments using various sewing techniques.
5. Fit garments on various body types and be able to make the proper adjustments.

Certificate in Fashion Design

1. Analyze and describe the fashion industry including innovations, careers, current trends, the impact of globalization and technology, and the expanding roles of designers.
2. Demonstrate command of visual presentation or production, and create a resume or relevant portfolio to be used to market him/herself in the fashion industry.
3. Demonstrate the principles and practice of fashion design including design analysis; use of industry vocabulary; technical illustration; drafting of patterns; and effective communication of original design concepts.
4. Demonstrate technical skills including machine operation; taking measurements; basic alterations; pattern layout, cutting, and preparation; and use of fabrics, tools, and supplies.

Fire Science (FSC)

AS Degree in Fire Technology

1. Analyze the causes of fire, determine extinguishing agents and methods of extinguishment, differentiate the stages of fire, and compare methods of heat transfer.
2. Identify and comprehend laws, regulations, codes and standards that influence fire department operations, and identify regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and firefighter health and safety.

Certificate of Achievement in Fire Technology

1. Analyze the causes of fire, determine extinguishing agents and methods of extinguishment, differentiate the stages of fire, and compare methods of heat transfer.
2. Identify and comprehend laws, regulations, codes and standards that influence fire department operations, and identify regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and firefighter health and safety.

Certificate of Achievement in Firefighter I Academy

1. Describe the components of a personal fitness program and develop a personal fitness program that will allow them to pass a standard fire fighter employment physical ability examination.
2. Successfully perform tasks which combine manipulative and technical competency required for California Firefighter I certification.
3. Successfully perform tasks which combine manipulative and technical competency required for national certification for an Emergency Medical Technician (EMT).

Certificate in BASIC 32

1. Describe wildland fire behavior.
2. Describe safety tactics to be utilized in fire control operations.
3. Develop a basic fire operations incident action plan and demonstrate skills of wildland fire suppression.

Foods and Nutrition (FN)

AS Degree in Nutrition and Food Sciences

1. Identify core concepts of natural and physical sciences, including Microbiology, Human Physiology, Chemistry and Statistics.
2. General Dietetics Option: Identify the major concepts, theoretical perspectives, research methods, core empirical findings, and historic trends in Psychology.
3. Food Administration Option: Identify and apply core concepts of Financial Accounting, Managerial Accounting and Microeconomics.
4. Apply academic skills needed for success in Nutrition and Food Sciences after transfer.

AS-T Degree in Nutrition and Dietetics

1. Describe the role of nutrition as it relates to optimal health and disease prevention.
2. Critically evaluate nutrition information and differentiate between credible and non-credible sources of information.
3. Use the concepts developed by chemistry and biology to explain how the nutrients and compounds found in foods affect body functions and health.
4. Describe ways in which food can be contaminated and identify preventive measures to reduce sources of contamination.

Geography (GEOG)

AA-T Degree in Geography

1. Identify fundamental concepts specific to physical and cultural Geography.
2. Identify conceptual and theoretical models pertaining to world, regional, and local Geography.
3. Apply applications associated with various thematic maps as well as use of geographical computer modeling.

Certificate in Geographic Information Systems

1. Create GIS datasets for use in maps, tables, and graphs.
2. Create, edit, and manipulate data, stored in proper format and with appropriate metadata.
3. Perform applicable and relevant analyses of GIS datasets.
4. Produce professional presentation of GIS results and provide results over a wide range of platforms.
5. Properly prepare students for ESRI Desktop GIS Certification exam.

Geology (GEOL)

AS-T Degree in Geology

1. Identify and interpret common rocks, minerals, fossils and geologic structures.
2. Explain the physical and biological changes that have occurred on earth throughout geologic time using modern theories such as plate tectonics and evolution.
3. Demonstrate an understanding of the geologic time scale and determine the age of rocks using both relative and absolute dating methods.
4. Synthesize information from plate tectonics theory and other science disciplines to solve geologic problems and explain geologic phenomena such as mountain building, patterns of igneous activity and seismicity.
5. Read and interpret topographic and geologic maps in order to answer geologic questions.
6. Demonstrate the analytical and critical thinking skills needed to succeed in a four-year geology program.

Health Information Management (HIM)

Certificate of Achievement in Medical Coding

1. Explain the role and the responsibilities that the medical coder has in the health information management field.
2. Describe the healthcare industry as it relates to health information management.
3. Demonstrate a working knowledge of medical terminology as it relates to medical coding.
4. Analyze healthcare legal and ethical issues in the context of the HIPAA guidelines.
5. Identify the content and structure of the health record, explain the importance of documentation on code assignment, and describe the impact on the reimbursement.
6. Interpret coding guidelines and accurately apply diagnosis and procedure codes utilizing ICD-10-CM, ICD-10-PCS, CPT, and HCPC.

History (HIST)

AA-T Degree in History

1. Identify major developments in the history of the United States and of the world, and to examine the past from diverse perspectives.
2. Apply historical reasoning to the study of the past and to think in terms of causation, context, chronology, and change and continuity.
3. Utilize historical method through posing questions and conducting research, analyzing evidence, and articulating defensible conclusions.

Honors (HON)

Certificate of Achievement in Honors

1. Analyze and synthesize significant global ideas and primary original works.
2. Demonstrate critical thinking skills in seminar-type discussions.
3. Demonstrate advanced writing skills and critical, creative thinking in composing a minimum of 5,000 words in analytical papers and reading responses.
4. Generate creative, original responses to course material.

Journalism (JOUR)

AA-T Degree in Journalism

1. Write simple and complex/long form news articles using the inverted pyramid and other formats
2. Build a portfolio of completed projects for student media that demonstrates a range of storytelling formats/styles and effective design/layout.
3. Demonstrate leadership and management skills as an editor.

Kinesiology (KIN)

AA Degree in General Physical Education

1. Identify and describe major concepts, theoretical principles, history and evolution, and current trends in kinesiology.
2. Assess his or her own physical activity level as it relates to lifelong fitness.
3. Describe physical activity as it relates to physiological responses and adaptations to exercise.
4. Recognize anatomical impacts on exercise related to age, gender, individual goals, and special needs.
5. Demonstrate and apply scientific principles to movement in the specific areas of fitness, aquatics, combatives, individual sport and team sport.
6. Develop and modify proper safety techniques for a variety of fitness programs.

AA-T Degree in Kinesiology

1. Identify and describe major concepts, theoretical principles, history and evolution, and current trends in kinesiology.
2. Describe physical activity as it relates to physiological responses and adaptations to exercise.
3. Recognize anatomical impacts on exercise related to age, gender, individual goals, and special needs.
4. Demonstrate and apply scientific principles to movement in the specific areas of fitness, aquatics, combatives, individual sport and team sport.
5. Develop and modify proper safety techniques for a variety of fitness programs.

Mathematics (MATH)

AS Degree in Mathematics

1. Define, understand, and apply concepts of limits, differentiation, and integration to authentic problems.
2. Apply methods of matrix transformations to solve both practical and theoretical problems.
3. Determine whether a theorem or definition applies in a given situation and use it appropriately.
4. Demonstrate good problem-solving habits including estimating solutions and rejecting unreasonable results.
5. Demonstrate the ability to use symbolic, graphical, numerical, and written representations of mathematical ideas.

AS-T Degree in Mathematics

1. Define, understand, and apply concepts of limits, differentiation, and integration to authentic problems.
2. Apply methods of matrix transformations to solve both practical and theoretical problems.
3. Determine whether a theorem or definition applies in a given situation and use it appropriately.
4. Demonstrate good problem-solving habits including estimating solutions and rejecting unreasonable results.
5. Demonstrate the ability to use symbolic, graphical, numerical, and written representations of mathematical ideas.

Multimedia Studies Program (MSP)

AS Degree in Graphic Design for Print

1. Employ critical thinking and conceptual problem-solving skills to create a portfolio of graphic design for print, which is up to standards for employment interviews in the current market.
2. Demonstrate expert use of graphic design tools and computer equipment.
3. Discuss, write about, organize and assemble a graphic design for print presentation or display before a live audience in an exhibition, online, or through other means of distribution and presentation.

AS Degree in Multimedia Studies

1. Employ critical thinking and conceptual problem-solving skills to create a portfolio and body of work to be used for promotion, client and project acquisition as a freelance designer, and to be used for obtaining employment in the design industry.
2. Demonstrate expert use of equipment, materials and software when creating multimedia projects.
3. Discuss, write about, organize and produce works for presentation to clients, employers and implementation based on project needs.

AA Degree in Graphic Design

1. Use critical thinking and problem solving skills to create a Graphic Design portfolio to show to potential clients or as an entry portfolio for transfer.
2. Demonstrate proficient use and knowledge of current design software tools, processes and presentation methods.
3. Research, discuss, and write about historic and current trends, movements, figures and technologies related to Graphic Design.

Certificate of Achievement in Multimedia Studies

1. Employ critical thinking and conceptual problem-solving skills to create a portfolio and body of work to be used for promotion, client and project acquisition as a freelance designer, and to be used for obtaining employment in the design industry.
2. Demonstrate expert use of equipment, materials and software when creating multimedia projects.
3. Discuss, write about, organize and produce works for presentation to clients, employers and implementation based on project needs.

Certificate in 2D Animation and Games

1. Edit and create graphics for animation and gaming applications.
2. Create 2D animations using industry standard software.
3. Discuss the principles of animation and game design.
4. Create game assets and control them with Actionscript.

Music (MUS)

AS Degree in Recording Arts

1. Make technically competent recordings of real instruments in a studio setting.
2. Utilize computer-based music software for electronic music composition.
3. Effectively edit and mix electronic compositions and studio recordings.
4. Analyze the fundamental concepts of audio theory.
5. Demonstrate proper etiquette and work ethic appropriate to a professional audio environment.

AA-T Degree in Music

1. Play their chosen instrument or sing at an advanced level.
2. Demonstrate the ability to either play or sing new music at sight.
3. Analyze a given piece of music in terms of chords and chord structure, modulation, cadences, and form.
4. Articulate the principles of playing in an ensemble.
5. Describe effective practice techniques.
6. Listen to a piece of music and identify its genre.

Certificate of Achievement in Recording Arts

1. Make technically competent recordings of real instruments in a studio setting
2. Utilize computer-based music software for electronic music composition
3. Effectively edit and mix electronic compositions and studio recordings
4. Analyze the fundamental concepts of audio theory
5. Demonstrate proper etiquette and work ethic appropriate to a professional audio environment

Certificate in Recording Arts for Musicians

1. Analyze the signal flow within a typical recording studio.
2. Plan and employ the use of digital mixing consoles for audio recording.
3. Operate digital multitrack recorders, software recording applications and digital audio workstations.
4. Compare and set up digital signal processing used for audio enhancement.
5. Formulate and implement effective recording session techniques.

Natural Resources (NR)

AS Degree in Natural Resources Management

1. Describe and apply the basic elements of the scientific method.
2. Identify basic environmental problems and describe how they affect the environmental's biotic and abiotic components.
3. Identify the main fish and game species located within the state and/or region of desired employment.
4. Evaluate the modern and historical roles of human impact on wildlife and wildlife management.

Certificate in Ecological Restoration

1. Identify the biologic and economic need for restoring and maintaining ecosystem health in California.
2. Demonstrate proper use of topographical maps, assessments, hand tools and equipment commonly used by ecological restorationists.
3. List and discuss wetland and upland habitat restoration techniques using native plants and various irrigation methods.
4. Examine and report the procedures required by law for the purpose of mitigating damage to the environment by industry.
5. Estimate cut and fill for a surveyed tract, operate wheel and track type tractors safely and properly, and perform operator level maintenance and adjustment of tractor systems.
6. Read and interpret basic irrigation designs and identify and troubleshoot irrigation problems with sprinklers, valves and controllers, then make the necessary repairs or replacements.

Certificate in Parks and Recreation

1. Acquire and demonstrate background knowledge in outdoor recreation as it relates to career opportunities, educational requirements, qualifications and duties of field personnel.
2. Evaluate recreation facilities and resources, identifying maintenance requirements, potential hazards, traffic, and people flow.
3. Demonstrate manipulative skills related to hand tools, power equipment, and machines commonly used in recreational land management.
4. Examine and report the procedures required by law for the purpose of mitigating damage to the environment by outdoor recreational activities.
5. Compile information from GPS data, aerial and topographical maps to analyze and present spatial configurations of natural resources on recreational lands.

Certificate in Wildlife Technician

1. Identify major game and fish species in northern California.
2. Assist in the capture, study, and management of wildlife.
3. Perform maintenance, participate in research, and interact with the public on wildlife areas or refuges.
4. Locate and analyze the federal and state acts, statutes and regulations which protect endangered species and other wildlife.
5. Utilize GPS and GIS systems to create and read maps of work areas.

Nursing (NSG)

AS Degree in Licensed Vocational Nursing

1. Use the nursing process to provide nursing care to individual patients/clients and families throughout the life span.
2. Demonstrate competency in the performance of technical nursing skills based on knowledge of nursing principles.
3. Provide educational information for individual patients/clients, families, and groups to promote, achieve, or maintain a state of health.
4. Initiate and maintain therapeutic communication with individual patients/clients and families.
5. Demonstrate caring behaviors based on recognition of individual needs and cultural differences.
6. Collaborate with other healthcare team members to provide optimum care.
7. Demonstrate professional behaviors in the role of a Licensed Vocational Nurse.

AS Degree in Registered Nursing

1. Adhere to standards of professional practice, and practice within legal, ethical and regulatory frameworks.
2. Demonstrate effective verbal, non-verbal, and written communication using compassion and cultural awareness resulting in trusting relationships.
3. Provide comprehensive assessments with a holistic view of the client using the functional health assessment.
4. Demonstrate evidenced-based practice and the use of critical thinking based on the nursing process to provide the foundation for appropriate clinical decision making.
5. Adapt care when providing nursing interventions to assist the clients in achieving desired outcomes.
6. Develop individualized teaching plan based on assessed needs.
7. Demonstrate decision-making coordination with the client, significant support person(s), and members of the healthcare team.
8. Demonstrate effective management through gathering information, planning, and directing in collaboration with the health care team to assist the client to move toward positive outcomes in an efficient and cost effective manner.

AS Degree in Registered Nursing: LVN to ADN

1. Adhere to standards of professional practice, and practice within legal, ethical and regulatory frameworks.
2. Demonstrate effective verbal, non-verbal, and written communication using compassion and cultural awareness resulting in trusting relationships.
3. Provide comprehensive assessments with a holistic view of the client using the functional health assessment.
4. Demonstrate evidenced-based practice and the use of critical thinking based on the nursing process to provide the foundation for appropriate clinical decision making.
5. Adapt care when providing nursing interventions to assist the clients in achieving desired outcomes.
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8. Demonstrate effective management through gathering information, planning, and directing in collaboration with the health care team to assist the client to move toward positive outcomes in an efficient and cost effective manner.

Certificate of Achievement in Licensed Vocational Nursing

1. Use the nursing process to provide nursing care to individual patients/clients and families throughout the life span.
2. Demonstrate competency in the performance of technical nursing skills based on knowledge of nursing principles.
3. Provide educational information for individual patients/clients, families, and groups to promote, achieve, or maintain a state of health.
4. Initiate and maintain therapeutic communication with individual patients/clients and families.
5. Demonstrate caring behaviors based on recognition of individual needs and cultural differences.
6. Collaborate with other healthcare team members to provide optimum care.
7. Demonstrate professional behaviors in the role of a Licensed Vocational Nurse.

Certificate of Achievement in Registered Nursing: LVN to ADN

1. Adhere to standards of professional practice, and practice within legal, ethical and regulatory frameworks.
2. Demonstrate effective verbal, non-verbal, and written communication using compassion and cultural awareness resulting in trusting relationships.
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4. Demonstrate evidenced-based practice and the use of critical thinking based on the nursing process to provide the foundation for appropriate clinical decision making.
5. Adapt care when providing nursing interventions to assist the clients in achieving desired outcomes.
6. Develop individualized teaching plan based on assessed needs.
7. Demonstrate decision-making coordination with the client, significant support person(s), and members of the healthcare team.
8. Demonstrate effective management through gathering information, planning, and directing in collaboration with the health care team to assist the client to move toward positive outcomes in an efficient and cost effective manner.

Certificate in Acute Care Nurse Assistant

1. Describe the limitations of the acute care nurse assistant with respect to the Scope of Practice guidelines.
2. Practice effective communication and documentation skills in the acute care setting.
3. Describe knowledge and understanding of a safe and secure environment for patients in the acute care setting. This includes ensuring the patient's room is free of hazards that might impede mobility and safety, as well as the provision of physical comfort.
4. Demonstrate and practice safe and effective care of the surgical patient.
5. Collaborate with nursing staff to formulate an appropriate plan of care for the patient with disorder of the major body systems: gastrointestinal, renal, reproductive, endocrine, cardiovascular, and respiratory.
6. Identify and follow proper procedures for providing appropriate care for the orthopedic, oncology, pediatric and/or dying patient.

Certificate in Certified Nursing Assistant

1. Describe and provide safe and competent personal care and procedures to clients in a long-term care setting.
2. Apply safety, cleanliness and infection control nursing measures.
3. Utilize professional and therapeutic communication techniques and prepare complete and correct documentation of care delivered.
4. Identify and apply legal and ethical principles related to the role of the nursing assistant and the rights of residents.
5. Describe quality of life issues, common long-term diseases/conditions, and related nursing care and rehabilitation techniques.
6. Describe basic principles of nutrition and types of therapeutic diets.
7. Correctly calculate mathematical problems related to the CNA nursing role and care.

Certificate in Home Health Aide

1. Describe and provide safe and competent personal care, procedures and interventions to clients in a home care setting.
2. Apply safety, cleanliness and infection control nursing measures in the home care setting.
3. Utilize professional and therapeutic communication techniques and prepare complete and correct documentation of care delivered in the home care setting.
4. Identify and apply legal and ethical principals related to the role of the nursing assistant and the rights of residents in home care settings.
5. Describe quality of life issues, the impact of common long-term diseases/conditions, and related nursing care and rehabilitation techniques utilized in the home care setting.
6. Describe basic principles of nutrition, food selection, storage, and planning/preparation of different types of therapeutic diets for the home care setting.

7. Correctly calculate mathematical problems related to the CNA nursing role and care in the home care setting.

Occupational and Life Skills (OLS)

Noncredit Certificate of Completion in Occupational and Life Skills

1. Identify and assess safety hazards in the workplace.
2. Demonstrate appropriate professional conduct.
3. Apply comprehension and writing strategies when confronted with workplace documentation.
4. Recognize and apply for compatible job opportunities relative to their occupation-specific certification.
5. Organize and accomplish tasks for completion, adhering to deadlines.
6. Determine amounts of money, temperature readings, volumes, and other measurements required for some occupations.

Photography (PHO)

AS Degree in Photography

1. Execute technical, aesthetic, and conceptual decisions based on an understanding of art and design principles.
2. Produce photographs suitable for seeking career opportunities in photography.
3. Solve creative problems in photography, including research and synthesis of technical, aesthetic, and conceptual knowledge.
4. Communicate photography concepts to specific audiences using proper visual, oral, and written presentation skills.
5. Evaluate photographic works, including their own, using professional terminology.

Certificate in Professional Photography

1. Demonstrate the safe use of photographic equipment in the studio and on location.
2. Produce photographic images for a variety of applications including industrial, medical, product display, architectural, portrait, food and fashion modeling.
3. Use computer software to edit and enhance photographic images for a variety of media including magazines, newspapers, brochures, television, and the internet.
4. Produce a selection of photographic images for a professional resume.

Physical Science (PSC)

AS Degree in Environmental Science

1. Investigate and describe specific evidence used to construct individual scientific principles.
2. Use scientific principles to explain well-established fundamental biological or physical phenomena and analyze their underlying components.
3. Utilize scientific methodologies when solving a problem.
4. Demonstrate knowledge of how human activities impact the physical and biological environments.
5. Demonstrate knowledge of environmental policy-making, regulation, compliance, enforcement, and the collection of data from fieldwork.

AS Degree in Physical Science

1. Investigate and describe specific evidence used to construct individual scientific principles.
2. Use scientific principles to explain well-established fundamental biological or physical phenomena and analyze their underlying components.
3. Utilize scientific methodologies when solving a problem.
4. Demonstrate knowledge of the interplay between the various physical sciences, how they align, and how they differ.
5. Demonstrate how the physical sciences differ from the biological and social sciences.

Physics (PHYS)

AS Degree in Physics

1. Demonstrate basic experimental knowledge through data gathering, judging the accuracy and reliability of data, creating informative graphs, and discussing the limitations of experimental designs.
2. Demonstrate basic analytical skills by interpreting graphs and schematics and diagnosing realistic physical problems.
3. Demonstrate conceptual understanding by being able to describe qualitatively the underlying causes of basic physical phenomena.

AS-T Degree in Physics

1. Demonstrate conceptual understanding by being able to describe qualitatively the underlying causes of basic physical phenomena.
2. Demonstrate analytical skills by interpreting graphs and schematics and diagnosing realistic physical problems.
3. Demonstrate experimental knowledge through data gathering, judging the accuracy and reliability of data, creating informative graphs, and discussing the limitations of experimental designs.

Political Science (POS)

AA-T Degree in Political Science

1. Identify major aspects of governmental systems of the United States, for individual states (especially California), and compare governmental systems on a global basis.
2. Place various governmental systems within a developmental/historical framework. Methods of description, analysis, and theory will also be important factors for students who select Political Science as their major.

Certificate in Leadership and Civic Engagement

1. Describe the history and current trends of leadership and civic engagement theories and models.
2. Identify the steps and demonstrate skills necessary to plan, implement and lead civic engagement projects.
3. Perform in leadership positions on campus or in the community.
4. Articulate a personal awareness of their own strengths, deficits, and areas for growth as a leader.

Psychology (PSY)

AA-T Degree in Psychology

1. Identify the major concepts, theoretical perspectives, research methods, core empirical findings, and historic trends in psychology from diverse perspectives.
2. Critically evaluate research reports and synthesize a body of research findings.
3. Develop testable hypotheses and select appropriate research design to test hypotheses.

Certificate of Achievement in Peace and Global Studies

1. Define the many forms of violence that exist from within one's mind to all levels of social construction.
2. Interrelate direct violence to deeper structural issues.
3. Recognize and articulate how core values, worldviews, and communication patterns shape cultural and individual identities.
4. Identify and describe barriers to effective intercultural communication such as stereotyping, prejudice, and ethnocentrism.
5. Evaluate the common problems that plague human societies and discuss remedies that would create more just and equitable societies on a global scale.
6. Analyze and discuss the promotion of ethical living by enhancing personal integrity in daily life.
7. Explain what it means to be a conscious, proactive global citizen.

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5. Analyze and discuss the promotion of ethical living by enhancing personal integrity in daily life.

Radio-TV-Film (RTVF)

AS Degree in Radio-TV-Film: Video Production

1. Demonstrate critical thinking skills and conceptual problem-solving skills to create a portfolio of work in audio/video production.
2. Demonstrate expert and safe use of hardware and software while creating audio/video productions.
3. Discuss, analyze and write about audio/video productions.
4. Organize and assemble audio/video productions for presentation to an audience.

AS-T Degree in Film, Television and Electronic Media

1. Describe the history, processes and current structure of electronic media, its ethical parameters, and the social and political effects of electronic and mass communication on an audience.
2. Write effectively for a variety of platforms appropriate to the discipline.
3. Gather, organize and analyze discipline-appropriate research and communicate information about it.
4. Identify and analyze legal and ethical principles relating to media.
5. Apply media technology, terminology and techniques to the design and creation of content for film, television, and electronic media.

Certificate of Achievement in Radio-TV-Film: Video Production

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4. Organize and assemble audio/video productions for presentation to an audience.

Certificate in Mass Media Studies

1. Describe the history, business models and new technologies of mass media in the United States.
2. Analyze the role and function of media ethics in commercial mass media.
3. Identify and address the technical and aesthetic issues related to creating and writing for electronic media.
4. Write and assemble audio or video productions for presentation to an audience.

Certificate in Single Camera Video Production

1. Apply basic videography skills to compose and record footage suitable for editing and digital manipulation.
2. Use computer software to edit a complete video project including title and soundtrack.
3. Select and edit audio sound effects and music for a video production.
4. Upload a video project to an Internet video sharing site for on-line distribution.
5. Evaluate a video production based on the target audience's interests, needs and viewing habits.

Real Estate (RLS)

AS Degree in Real Estate

1. Identify and explain real estate concepts and principles.
2. Create a Competitive Market Analysis for a Real Estate property so that they can evaluate properties based on factual data.
3. Analyze legal contracts associated with real estate transactions, and identify and explain their uses, components and implications.

Certificate of Achievement in Real Estate

1. Identify and explain real estate concepts and principles.
2. Create a Competitive Market Analysis for a Real Estate property so that they can evaluate properties based on factual data.
3. Analyze legal contracts associated with real estate transactions, and identify and explain their uses, components and implications.

Certificate in Real Estate Appraisal

1. Describe the purpose, steps and outcomes of the appraisal process.
2. Utilize each of the traditional approaches (sales comparison, cost and income) to estimate market value for a particular residential property.
3. Prepare an appraisal report for a particular residential property utilizing the Uniform Residential Appraisal Report (URAR) format.
4. Identify and describe fundamental real estate concepts and principles.

Certificate in Real Estate Sales

1. Prepare sales listings and sales contracts.
2. Explain the process of transferring ownership of real estate including escrow procedure and legal documentation required.
3. Identify and describe fundamental real estate concepts and principles.
4. Explain the appraisal process and its impact on closing real estate transactions.

Respiratory Therapy (RT)

AS Degree in Respiratory Care

1. Demonstrate a solid professional and general medical knowledge base.
2. Accurately interpret pertinent clinical information from medical records and physical findings.
3. Recommend appropriate therapeutic interventions based on physiological data and patient assessment data.
4. Demonstrate sound clinical judgment and is proficient in the clinical skills required on the job.
5. Competently perform the therapeutic procedures and modalities, and diagnostic procedures required on the job.
6. Demonstrate efficient performance of an overall patient assessment.
7. Demonstrate effective oral and communication skills.
8. Exhibit ethical and professional manners, including timely and prepared entrance to clinic and contributing to a positive work environment.
9. Function effectively as a member of the health care team, accepts supervision and works effectively with supervisory personnel.
10. Demonstrate self-direction and responsibility for his/her own actions.
11. Display respect for beliefs and values of all persons regardless of cultural background, religion, age, or lifestyle.

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10. Demonstrate self-direction and responsibility for his/her own actions.
11. Display respect for beliefs and values of all persons regardless of cultural background, religion, age, or lifestyle.

Sociology (SOC)

AA Degree in Social and Behavioral Science

1. Identify major theoretical orientations in the social and behavioral sciences and describe basic concepts regarding human behavior and thought.
2. Utilize critical thinking skills to analyze, evaluate, and make decisions concerning complex contemporary issues and the interactions among individuals and across societies.
3. Apply discipline-specific principles to the development of interpersonal, occupational, and social skills suited to a diverse world.

AA-T Degree in Sociology

1. Describe the major concepts, perspectives, research methods, and historic trends in sociology.
2. Identify and analyze contemporary social problems and issues of gender, race, ethnicity, and social inequality using qualitative and quantitative information.

Certificate in Sustainability Studies

1. Identify how current social, economic, and environmental problems affect their individual lives, the lives of people in other parts of the world, and the lives of future generations.
2. Define sustainability, evaluate the sustainability of particular systems and practices, and analyze the political and cultural challenges of sustainability implementation.
3. Recognize the fundamental impacts of humans, including commerce and attitudes, on the earth's systems.
4. Evaluate the interdependencies and long-term thinking necessary to grow the world economy while also protecting environmental resources.
5. Utilize critical thinking to develop a point of view regarding the problems and potential solutions for providing adequate yields of nutrient dense food and potable water for a growing global population, both in developing and developed countries.
6. Discuss and write about the ways in which fields such as environmental ethics, ecology, sociology, technology and others interconnect in Sustainability Studies.
7. Develop ideas to create common ground and promote the principles of sustainability to diverse groups of people.
8. Develop a knowledge base to enable them to choose lifestyles and careers that will promote sustainable principles.

Spanish (SPAN)

AA-T Degree in Spanish

1. Converse and write in Spanish at the intermediate level with effective use of grammar, vocabulary, comprehensible pronunciation, and syntax on a range of topics such as personal and family lives, school or work, and current events.
2. Read and understand authentic texts in Spanish such as letters, essays, newspaper articles, poems, and/ or short stories.
3. Demonstrate knowledge and understanding of the linguistic, literary, and cultural elements (such as general knowledge of the social, political, and economic conditions and contributions) of the Spanish speaking world.

Welding (WLD)

AS Degree in Welding Technology

1. Setup and safely operate welding equipment.
2. Demonstrate the skill set necessary to qualify for an unlimited position welding qualification meeting AWS standards.
3. Demonstrate effective oral and written communication in a variety of situations, utilizing proper welding terminology and acronyms.

Certificate of Achievement in Welding Technology

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2. Demonstrate the skill set necessary to qualify for an unlimited position welding qualification meeting AWS standards.
3. Demonstrate effective oral and written communication in a variety of situations, utilizing proper welding terminology and acronyms.

Certificate in PowerPathway Gas Pipeline Welding

1. Setup and safely operate welding equipment.
2. Layout, cut, prepare, and weld various pipe joint designs.
3. Apply qualification procedures of the API and ASME for certification.

Certificate in Welding Technology Level I

1. Setup and safely operate welding equipment.
2. Operate the SMAW units to weld in the flat, horizontal, vertical, and overhead positions.
3. Demonstrate proper welding process of groove welds (with backing and open) per qualification procedures set by the AWS.

Certificate in Welding Technology Level II

1. Setup and safely operate welding equipment.
2. Demonstrate proper use of the OAW and SMAW processes in all positions.
3. Demonstrate proper base metal, beads and fillet welds qualification procedures per requirements set by the AWS.
4. Interpret welding symbols on a variety of layouts and working drawings.

Certificate in Welding Technology Level III

1. Setup and safely operate welding equipment.
2. Weld pipe and tube in 2G, 5G and 6G position using all the following processes: SMAW, GMAW, GTAW, and FCAW.
3. Apply qualification procedures in several codes to meet the required standard for entry-level employment.