Business School		
Program	**Degree**	**Outcomes**
Accounting	MS https://business.ucdenver.edu/ms/accounting	Value 1: Analyze Critically Outcome: Identify key issues, think critically, and derive appropriate solutions for advanced, complex, uncertain or unstructured accounting problems and issues, at a level appropriate for senior-level professional accountants. Value 2: Behave Ethically Outcome: Apply appropriate ethical standards in evaluating and choosing among alternative solutions to ethical dilemmas commonly faced by senior-level professional accountants. Value 3: Communicate Effectively Outcome: Demonstrate effective written and oral communication skills appropriate for senior-level professional accountants. Value 4: Leverage Technology Outcome: Demonstrate familiarity with information systems and business processes, competency in data analysis and agility in utilizing an array of information technology tools.

| Business Administration (all majors have the same learning outcomes) | BS

https://business.ucdenver.edu/bsba/accounting
https://business.ucdenver.edu/bsba/entrepreneurship
https://business.ucdenver.edu/bsba/finance
https://business.ucdenver.edu/bsba/financial-management
https://business.ucdenver.edu/bsba/human-resources
https://business.ucdenver.edu/bsba/information-systems
https://business.ucdenver.edu/bsba/international-business
https://business.ucdenver.edu/bsba/international-business
https://business.ucdenver.edu/bsba/management
https://business.ucdenver.edu/bsba/marketing
https://business.ucdenver.edu/bsba/risk-management-and-insurance
https://business.ucdenver.edu/bsba/sports-business | Value 1: Foundational Business Knowledge
Outcome: Explain foundational concepts associated with core business disciplines, including accounting, economics, finance, business statistics, operations management, business law, organizational behavior, marketing, information technology, and global strategy.

Value 2: Critical Thinking
Outcome: Analyze business problems using appropriate analytical and critical thinking skills.

Value 3: Ethical Practice
Outcome: Make ethical decisions, translating ethical principles into business practice.

Value 4: Effective Communication
Outcome: Effectively communicate a business message.

Value 5: International Perspectives
Outcome: Explain the impact of international perspectives on business strategy and operations.

Value 6: Business Technology
Outcome: Use appropriate business-related technologies to address business problems. |

Business Analytics	MS https://business.ucdenver.edu/ms/business-analytics	Value 1: Leverage data, technology, and mathematical models Outcome: Students will apply data, technology, and mathematical models to produce evidence-based information for business and government decision-makers. Propose appropriate models or solution methods; -Design a solution option to meet organizational or program requirements; -Evaluate the solution option in light of organizational goals and/or structure; -Communicate the solution option to decision-makers. Value 2: Analyze Critically Outcome: Students will master the analytical and programming skills necessary to adapt to ever-changing software, methodologies, technologies, and techniques. -Use current software to access and manipulate data; -Gain fundamental knowledge of data structures, functions, and programming logic that facilitates self-learning of other software and programming skills.
Computer Science and Information Systems	PhD https://business.ucdenver.edu/phd-computer-science-and-information-systems	Value 1: Communicate Effectively Outcome: Create effective academic papers and presentations to communicate results of original research. Value 2: Research Proficiently Outcome: Demonstrate competence in developing research questions in important areas of information systems and applying research methods to study research questions.
Finance and Risk Management	MS https://business.ucdenver.edu/ms/finance-risk-mgmt	Value 1: Think Critically Outcome: Apply appropriate theories to available economic and financial data to arrive at value-maximizing decisions. Value 2: Analyze Quantitative Data Outcome: Apply quantitative models, methods, tools and/or frameworks, combined with theoretical knowledge, to a set of applied financial problems. Value 3: Take a Global Perspective Outcome: Evaluate the impact of global financial and economic contexts on business strategy and operations. Value 4: Behave Ethically Outcome: Apply appropriate theories to incorporate ethics into investment analysis and the financial decision-making process.

| Global Energy Management | MS https://business.ucdenver.edu/ms/global-energy-management | Value 1: Business Acumen Outcome: Demonstrate cross-functional business acumen sufficient to enable effective market and situation analysis, problem-solving, decision-making, and resource allocation to achieve expected results at both business unit (tactical) and enterprise (strategic) levels. Value 2: Lead and Manage People Outcome: Demonstrate the ability to lead and manage geographically and culturally diverse people and organizations at both business unit (tactical) and enterprise (strategic) levels. Value 3: Energy Industry Expertise Outcome: Demonstrate a comprehensive understanding of the worldwide energy marketplace and the information, methods, and strategies used by strategic decision-makers in the energy industry. Value 4: Executive Presence Outcome: Demonstrate a growing executive presence based on confidence, credibility, demeanor, communication, ethics, and personal brand. |

Health	MBA https://business.ucdenver.edu/mba/executive-mba-health-administration	Value 1: Understand the U.S. Healthcare System Outcome: Demonstrate an understanding of the basic characteristics and functions of the U.S. healthcare system and how it compares to other healthcare systems around the world. Value 2: Act Strategically Outcome: Develop strategies that are designed to sustain competitive advantage and optimize value for all stakeholders, including the community. Value 3: Analyze Critically Outcome: Analyze quantitative and qualitative information using the most appropriate methods, tools and/or frameworks for a given business or community health problem. Outcome: Interpret data, reach conclusions and provide recommendations for solutions. Value 4: Behave Ethically Outcome: Understand the ethical reasoning process and recognizes ethical issues/dimensions of management decisions. Value 5: Communicate Effectively Outcome: Apply effective and professional communication skills in business situations. Value 6: Lead Purposefully Outcome: Participate in producing positive team objectives, possess teamwork skills and lead teams effectively. Value 7: Think Globally Outcome: Develop business strategies that include the impact of culture and allows a firm to adapt to international environments.

| Health Administration | MS

https://business.ucdenver.edu/ms/health-administration | Value 1: Understand the U.S. Healthcare System
Outcome: Demonstrate an understanding of the basic characteristics and functions of the U.S. healthcare system and how it compares to other healthcare systems around the world

Value 2: Act Strategically
Outcome: Develop strategies that are designed to sustain competitive advantage and optimize value for all stakeholders, including the community.

Value 3: Analyze Critically
Outcome: Analyze quantitative and qualitative information using the most appropriate methods, tools and/or frameworks for a given business or community health problem.
Outcome: Interpret data, reach conclusions and provide recommendations for solutions.

Value 4: Communicate Effectively
Outcome: Apply effective and professional communication skills in business situations.

Value 5: Think Globally
Outcome: Develop business strategies that include the impact of culture and allows a firm to adapt to international environments. |

| Information Systems | MS

https://business.ucdenver.edu/ms/information-systems | Value 1: Leverage Data
Outcome: Design systems and processes that facilitate the organization, use, management, and preservation of information.

Value 2: Manage Strategically
Outcome: Develop strategies for the efficient and cost-effective management of information systems.

Value 3: Design Thoughtfully
Outcome: Translate business requirements into technical solutions by analyzing, designing, implementing, and evaluating information systems artifacts.

Value 4: Act Securely
Outcome: Apply basic cybersecurity principles to identify, protect, detect respond and recover from cybersecurity threats.

Value 5: Communicate Effectively
Outcome: Communicate Information technology requirements or solutions to business and IT professionals.

Value 6: Behave Ethically
Outcome: Assess ethical issues in information systems, such as privacy, access, and bias. |
| International Business | MS

https://business.ucdenver.edu/ms/international-business | Value 1: Apply a Global Mindset
Outcome: Identify, describe and evaluate how various forces, such as culture, geopolitics, technology, economics and laws, impact the conduct of business across borders.

Value 2: Demonstrate International Business Expertise
Outcome: Define and analyze problems in functional areas of International Business, such as international finance and accounting, international marketing, international management, global supply chain management, and global technology management.

Value 3: Excel in Cross-Cultural Contexts
Outcome (for consulting course): Match market opportunities with learned international business resources.
Outcome (for field trip): Compare and contrast business environments and operations across cultures in an applied context. |

Management & Organization	MS https://business.ucdenver.edu/ms/management	Value 1: Design effective organizations Outcome: Evaluate characteristics of, and issues related to, an organization's internal task environment, and make organizational design choices based on this internal assessment. Outcome: Evaluate characteristics of, and issues related to, an organization's external resource and competitive environment, and make organizational design choices based on this external assessment. Value 2: Lead planned change Outcome: Use a strategic perspective in problem diagnosis and implementing change strategies. Outcome: Identify the components associated with developing a change vision, creating urgency, building a change team, gaining buy-in and sustaining the momentum until a change is integrated into the organizational culture. Value 3: Strategically manage human resources. Outcome: Identify the ethical and legal issues associated with managing human resources. Outcome: Identify the components associated with attracting, selecting and deploying human resource talent-based on organizational strategy. Outcome: Identify the components associated with training, evaluating, and developing human resource talent. Outcome: Identify the components associated with implementing compensation and benefits systems that attract, retain, and motivate talent.
Marketing	MS https://business.ucdenver.edu/ms/marketing	Value 1: Think Strategically Outcome: Understand the elements of marketing strategy and how they can be deployed to develop profitable, ongoing, market-based relationships. Value 2: Analyze Critically Outcome: Analyze both quantitative and qualitative information using the appropriate methods, tools, theories, and/or frameworks to develop innovative solutions for various marketing problems. Value 3: Think Globally Outcome: Develop marketing strategies for global markets that are logically based on a critical assessment of global issues and the impact of culture. Value 4: Communicate Tactically Outcome: Understand and apply the analytical models, frameworks, tools, and theories from communication, branding, and consumer behavior to determine communication tactics that support strategic marketing goals and objectives.

| MBA | MBA

https://business.ucdenver.edu/mba/one-year-mba | Value 1: Act Strategically
Outcome: Develop strategies that are designed to sustain a competitive advantage and optimize stakeholder value.

Value 2: Analyze Critically
Outcome: Analyze quantitative and qualitative information using the most appropriate methods, tools and/or frameworks to address a given business problem.

Value 3: Behave Ethically
Outcome: Evaluate ethical dilemmas by applying appropriate theories and principles to the assessment of divergent perspectives in the decision-making process.

Value 4: Communicate Effectively
Outcome: Apply effective and professional communication skills in business situations.

Value 5: Lead Collaboratively
Outcome: Collaborate effectively within diverse business teams, leveraging teamwork and leadership skills.

Value 6: Think Globally
Outcome: Evaluate the impact of different socio-cultural, political/institutional, legal, financial, and/or economic contexts on business strategy and operations.

Value 7: Leverage Technology
Outcome: Demonstrate the ability to leverage information technology tools to support business processes and decision making. |

Taxation	MS https://business.ucdenver.edu/ms/taxation	Value 1: Analyze Critically Outcome: Apply fundamental tax principles and techniques to analyze and integrate complex tax issues in order to make informed decisions. Value 2: Research Effectively Outcome: Research tax problems effectively and efficiently utilizing primary and secondary research materials and sources and online tax research tools. Value 3: Behave Ethically Outcome: Conduct their respective tax practices according to professional standards and ethical decision-making. Value 4: Communicate Effectively Outcome: Communicate tax concepts in a clear, concise and effective manner in both written and oral form

College of Arts and Media		
Program	**Degree**	**Outcomes**
Film & Television	BFA https://artsandmedia.ucdenver.edu/areas-of-study/about-film-television/ftv-learning-outcomes	1. Production Skills: Pre-production, Production, and Post-Production for Film and Television Projects Students will be able to explain and perform tasks with respect to the various phases of film and television products. A. Develop film and television projects, including script writing and rewriting, personnel organization, legal issues, project pitches, budget development, casting sessions, location acquisition, and equipment usage and needs. B. Perform tasks related to directing, cinematography, lighting, sound recording techniques, and on-set personnel procedures. C. Exhibit skills in video editing, color correction, audio sweetening, visual effects and storytelling. 2. Distribution Practices: Film and Television Distribution Practices in Business and Industry Students will be able to explain and perform all industry practices in the business of film and television production relating to distribution and final documentation of production management and legal practices A. Identify global perspectives and promote cross-cultural understanding of distribution models for both domestic and international television broadcast and theatrical film and television outlets. B. Develop an understanding of the aesthetics and theoretical basis of distribution funding models to create successful commission and/or acquisition deals in television network, studio, or online media distribution in order to establish a variation of proper revenue streams and license fees. C. Prepare a complete post-production technical work-flow, and include budgeting based on industry standard practices. D. Construct the incorporation of final mastering with graphics, sound/audio mixing, color correction, and all media deliverables to pass technical evaluation and quality control upon successful completion of the final picture lock edit approval per the relevant executive committee. E. Create all production-related legal documentation and media package deliverables upon successful completion of the final production process. 3. Television and Cinema Traditions: Traditions of Television and Cinema Students will know the broad outlines of the history of film and television, which include technology, style, thematic interests, and the major historical changes affecting the making of all the arts. A. Identify the style and the thematic concerns of the essential movements in cinema, including Soviet Constructivism, German Expressionism, the various post-WWII "new waves" and the post-1960 "film school" movements.

B. Describe the distinguishing elements of the major developments in American cinema including the effects of the Hollywood Production Code of 1930, the development of the Hollywood studios and the major Hollywood genres, the decline of the studios after WWII, and the rise of "independent" filmmaking and television.

C. Explain the effects of the major technological developments in film and television, including sound, color, the conversion from film to digital, and changes in distribution platforms.

D. Analyze the various genres of television production, including the sitcom, long-form drama, news shows, the talk show, and such recent genres as "unscripted" television and web series.

E. Discuss the profound aesthetic and thematic developments in television, such as the long-running episodic productions marked by Seinfeld, The Sopranos, The Wire, Breaking Bad, Mad Men, Girls, and House of Cards.

4. Industry Trends: Trends within the Film and Television Industry
Students will be cognizant of trends for the overall film and television industries with regards to production methods and distribution models.

A. Describe the rapidly changing nature of opportunities within the diverse realms of broadcast offerings that include network, premium cable, basic cable, and the internet television platforms.

B. Explain the terminology, distribution models, narrative structures, and web series' practices within the expansive emergence of the television industry.

C. Interpolate the distinct aspects of structuring and creating film and television projects for a cross-section of screening options within the digital age.

| Fine Arts in Art History | BA

https://artsandmedia.ucdenver.edu/areas-of-study/visual-arts/va-ba-learning-outcomes | 1. Knowledge
A. Visual Arts graduates at CU Denver will have a broad understanding of contemporary and historical practices and theory in the arts.
B. Visual Arts graduates at CU Denver will understand art, design, and theoretical practice as it applies to their major emphasis of study.
C. Visual Arts graduates at CU Denver will demonstrate critical thinking in art, design, and theory through innovative approaches to their field.

2. Skills
A. Visual Arts graduates at CU Denver will conduct art, design, and theoretical practice as it applies to their major emphasis of study in the visual arts.
B. Visual Arts graduates at CU Denver will research and articulate, both verbally and textually, art and design concepts as they apply to their major emphasis of study.
C. Visual Arts graduates at CU Denver will market themselves and function effectively in their professional field.

3. Dispositions
A. Visual Arts graduates at CU Denver will be visually literate individuals with the means to critically engage the arts—as they currently exist and as they may become.
B. Visual Arts graduates at CU Denver will be creatively confident, with an awareness of world culture and how they as individuals fit into the history and the intersection of the arts, technology,
C. Visual Arts graduates at CU Denver will be committed to artistic innovation fueled by the power of the possibilities that arise from collaborating across creative disciplines and believe in creating vital, passionate, creative communities that embrace a diversity of ideas, positions, and solutions. |

| Fine Arts | BFA

https://artsandmedia.ucdenver.edu/areas-of-study/visual-arts/va-bfa-learning-outcomes | 1. Knowledge
A. Visual Arts graduates at CU Denver will have a broad understanding of contemporary and historical practices and theory in the arts.
B. Visual Arts graduates at CU Denver will understand art, design, and theoretical practice as it applies to their major emphasis of study.
C. Visual Arts graduates at CU Denver will demonstrate critical thinking in art, design, and theory through innovative approaches to their field.
D. Visual Arts graduates from CU Denver will demonstrate significant technical skills, techniques, processes and choose materials appropriate for their major emphasis area.

2. Skills
A. Visual Arts graduates at CU Denver will conduct art, design, and theoretical practice as it applies to their major emphasis of study in the visual arts.
B. Visual Arts graduates at CU Denver will research and articulate, both verbally and textually, art and design concepts as they apply to their major emphasis of study.
C. Visual Arts graduates at CU Denver will market themselves and function effectively in their professional field.
D. Visual Arts graduates at CU Denver will demonstrate proficiency in technical skills in their area of focus.

3. Dispositions
A. Visual Arts graduates at CU Denver will be visually literate individuals with the means to critically engage the arts—as they currently exist and as they may become.
B. Visual Arts graduates at CU Denver will be creatively confident, with an awareness of world culture and how they as individuals fit into the history and the intersection of the arts, technology,
C. Visual Arts graduates at CU Denver will be committed to artistic innovation fueled by the power of the possibilities that arise from collaborating across creative disciplines and believe in creating vital, passionate, creative communities that embrace a diversity of ideas, positions, and solutions |

| Media Forensics | MS

https://artsandmedia.ucdenver.edu/areas-of-study/national-center-for-media-forensics/media-forensics-graduate-program/media-forensics-outcomes | 1. Knowledge
A. Develop the technical knowledge needed in forensic audio/video analysis
B. Demonstrate an understanding of advanced techniques crucial to media forensics
C. Apply standardized analysis and evidence handling procedures to ensure the integrity of digital evidence.
D. Recognize ethical professional practice and the role of unbiased science in forensics.

2. Skills
A. Apply theory and technical skills related to audio/video technology
B. Reference international standards and best practices for the analysis of forensic media.
C. Thoroughly document procedures used in analyses
D. Provide scientific, persuasive, and ethical expert witness testimony

3. Dispositions
A. Value necessary aspects of adaptive creativity and scientific reasoning in the investigation of forensic media: an inquisitive nature, objectivity, organization, cross-disciplinary awareness, and problem solving skills honed to address various technologies. |

| Music | BS

https://artsandmedia.ucdenver.edu/areas-of-study/music-entertainment-industry/meis-learning-outcomes | 1. Creative Expression
Students will be able to express themselves and their musical art in the areas of entrepreneurship, recording engineering, composition, and performance.

Specifically, students will be able to:
A. Develop music industry related projects which are expressions of creativity. These could include, but are not limited to, creating musical compositions, producing musical recordings, developing performance skills, or creating artist management/business plans.
B. Exhibit skills via musicianship courses (theory, composition, composition, etc.) at levels appropriate to focus areas within the performance, recording, and music business areas.
C. Integrate the spirit of entrepreneurship into performance opportunities, capstone recording projects, organization creation and creative works in all areas of the entertainment industry.

2. Content Knowledge
Students will have a comprehensive historical understand of music and the music industry, while also having a propensity for new technology and experimentation.

Specifically, students will be able to:
A. Identify local, national, and global perspectives and promote a cross-cultural understanding of trends in the music industry.
B. Create professional quality projects that relate to the history of music from previous centuries.
C. Prepare a capstone project which shows an understanding of the standard industry practice and builds on historical trends.

3. Analytical Processes
Students will be able to think critically and engage in meaningful problem solving.

Specifically, students will be able to:
A.Identify opportunities and risks in the music industry and be able to find manageable solutions.
B. Apply knowledge from their specific focus areas to other areas in the music industry. This could include a performer understanding audio reinforcement techniques, an audio engineer being able to analyze a song's form, or a music business student creating a social media plan for their music ensemble.
C. Analyze future trends in the rapidly evolving world of digital music and apply that knowledge to solving issues. |

| Recording Arts | MSRA

https://artsandmedia.ucdenver.edu/areas-of-study/music-entertainment-industry/recording-arts/recording-arts-ms/msra-learning-outcomes | 1. Creative Expression
Students will be able to express themselves and their technical art in the areas of career development, collaboration, and audio production.
A. Develop a portfolio that represents themselves as a creative expert in their discipline.
B. Demonstrate successful creative collaboration with peers.
C. Advance the state of art in the audio production field through the thesis/portfolio process.

2. Content Knowledge
Students will have a comprehensive understanding of traditional research in the audio field, while also showing mastery of advanced and emerging audio techniques.
A. Conduct formal research and express the knowledge gained in meaningful ways.
B. Demonstrate fluency in advanced recording, editing, and mixing techniques.
C. Evaluate and employ emerging technologies in audio production.

3. Analytical Process
Students will be able to think critically and engage in meaningful academic and audio production activities.
A. Lead an audio production course at the university level using best pedagogical practices.
B. Interact successfully in an academic research environment.
C. Deconstruct and understand historical and modern audio production techniques. |

College of Architecture and Planning		
Program	**Degree**	**Outcomes**
Architecture	BS https://architectureandplanning.ucdenver.edu/architecture/academics/bachelor's-programs/bachelor-science-architecture	1. The development of the critical, analytical, interpretive and creative abilities that are essential to engaging and effectively addressing the diverse bodies of knowledge that define architecture's realm and its practices 2. The use of design thinking as a highly effective means for dealing with complex situations, and will ask students to respond to design issues and situations that are often in conflict through analysis, interpretation, reason, argumentation and proof with both precision and accuracy 3. The ability to analyze, interpret, organize, arrange and manipulate various bodies of knowledge 4. Understanding and being able to apply appropriate methodologies

| Architecture | March https://architectureandplanning.ucdenver.edu/architecture/academics/ masters-programs/master-of-architecture | Realm A: Critical Thinking and Representation A. 1. Communication Skills A. 2. Design Thinking Skills A. 4. Technical Documentation A. 5. Investigative Skills A. 6. Fundamental Design Skills A. 7. Use of Precedents A. 8. Ordering Systems Skills A. 9. Historical Traditions and Global Culture A. 10. Cultural Diversity A. 11. Applied Research Realm B: Integrated Building Practices, Technical Skills and Knowledge B. 1. Pre-Design B. 2. Accessibility B. 3. Sustainability: B. 4. Site Design B. 5. Life Safety B. 6. Comprehensive Design B. 7. Financial Considerations B. 8. Environmental Systems B. 9. Structural Systems B. 10. Building Envelope Systems B. 11. Building Service Systems B. 12. Building Materials and Assemblies Realm C: Leadership and Practice C. 1. Collaboration C. 2. Human Behavior C. 3. Client Role in Architecture C. 4. Project Management C. 5. Practice Management C. 6. Leadership C. 7. Legal Responsibilities C. 8. Ethics and Professional Judgment C. 9. Community and Social Responsibility |

Geography, Planning, and Design	Phd https://architectureandplanning.ucdenver.edu/architecture/academics/phd/phd-geography-planning-design/phd-curriculum	1. Exhibit a comprehensive understanding of content area(s) of focus 2. Anchor ideas in scholarship and identify novel areas for scholarly pursuit 3. Conduct quality research appropriate to the field 4. Create written products that are clear and logical in form 5. Present clear and convincing ideas orally that demonstrate a strong understanding of the areas of focus
Historic Preservation	MS https://architectureandplanning.ucdenver.edu/architecture/academics/masters-programs/master-of-science-in-historic-preservation	1. Understand the field of historic preservation as it relates to civic engagement and public pol-icy. 2. Analyze complex heritage situations and formulate a strategy for preservation. 3. Communicate acquired historic preservation expertise to diverse stakeholders. 4. Assess the significance of the built environment and cultural landscapes. 5. Possess the ability to perform fundamental professional activities such as: cultural resource surveys, historic designation nominations, resource management plans, preservation, and restoration project plans.
Landscape Architecture	MLA https://architectureandplanning.ucdenver.edu/architecture/academics/masters-programs/master-landscape-architecture	1. Design: Students will be able to formulate questions and arguments about landscape and landscape's role as a significant cultural medium; determine processes and practices that lead to conceptual, analytical and formative actions that transform existing situations into preferred alternatives based on ethical, communicative and content knowledge criteria. 2. Ethics: Students will be able to critically evaluate local and global ramifications of social issues, diverse cultures, economic systems, ecological systems and professional practice as guiding principles for design thinking and implementation. 3. Communication and Representation: Students will be able to speak, write, create and employ appropriate representational media to effectively convey ideas on subject matter contained in the professional curriculum to a variety of audiences. 4. Content Knowledge: Students will be able to develop a critical understanding and application of the histories, theories, ethics and practices of landscape architecture, and its role in reflecting and shaping culture and environments. 5. Research: Students will be able to understand and apply

		appropriate research methods for design and scholarship in landscape architecture.

| Urban and Regional Planning | MURP

https://architectureandplanning.ucdenver.edu/architecture/academics/departments/urbanregionalplanning/urban-and-regional-planning-program-performance#learningoutcomes | 1. General Planning Knowledge: The comprehension, representation, and use of ideas and information in the planning field, including appropriate perspectives from history, social science, and design, and other allied fields.
a) Purpose and Meaning of Planning: why planning is undertaken by communities, cities, regions, and nations, and the impact planning is expected to have.
b) Planning Theory: behaviors and structures available to bring about sound planning outcomes.
c) Planning Law: legal and institutional contexts within which planning occurs.
d) Human Settlements and History of Planning: growth and development of places over time and across space.
e) The Future: relationships between past, present, and future in planning domains, as well as the potential for methods of design, analysis, and intervention to influence the future.
f) Global Dimensions of Planning: interactions flows of people and materials, cultures, and differing approaches to planning across world regions.

2. Planning Skills: The use and application of knowledge to perform specific tasks required in the practice of planning.
a) Research: tools for assembling and analyzing ideas and information from prior practice and scholarship, and from primary and secondary sources.
b) Written, Oral and Graphic Communication: the ability to prepare clear, accurate, and compelling text, graphics, and maps for use in documents and presentations.
c) Quantitative and Qualitative Methods: data collection, analysis, and modeling tools for forecasting, policy analysis, and design of projects and plans.
d) Plan Creation and Implementation: integrative tools useful for sound plan formulation, adoption, and implementation and enforcement.
e) Planning Process Methods: tools for stakeholder involvement, community engagement, and working with diverse communities.
f) Leadership: tools for attention, formation, strategic decision-making, teambuilding, and organizational/community motivation. |

		3. Values and Ethics: Values inform ethical and normative principles used to guide planning in a democratic society. The Program shall incorporate values and ethics into required courses of the curriculum, including: a) Professional Ethics and Responsibility: key issues of planning ethics and related questions of the ethics of public decision-making, research, and client representation (including the provisions of the AICP Code of Ethics and Professional Conduct, and APA's Ethical Principles in Planning). b) Equity, Diversity, and Social Justice: key issues in equity, diversity, and social justice that emphasize planners' role in expanding choice and opportunity for all persons, plan for the needs of the disadvantaged, reduce inequities through a critical examination of past and current systems and disparities, and promote racial and economic integration. c) Governance and Participation: the roles of officials, stakeholders, and community members in planned change. d) Sustainability and Environmental Quality: environmental, economic, and social/political factors that contribute to sustainable communities, and the creation of sustainable futures. e) Growth and Development: economic, infrastructure, social, and cultural factors in urban and regional growth and change. f) Health and Built Environment: planning's implications on individual and community health in the places where people live, work, play and learn.

| Urban Design | MUD

https://architectureandplanning.ucdenver.edu/architecture/academics/masters-programs/master-of-urban-design | Design excellence
A. Identify, organize and assess existing physical, social, economic, political, cultural and regulatory constraints and opportunities.
B. Identify, unpack and reassemble the various layers, flows and systems of infrastructure (both natural and human-made) impacting a project area.
C. Rigorously evaluate alternative physical design strategies before selecting technically sound solution that addresses site and program.
D. Develop cohesive, foundational design solution that resolves extant conflicts or contradictions by responding to the identified contextual constraints, opportunities and processes.
E. Objectively evaluate alternative design responses presented by other students.

Communication skills
A. Write an organized, compelling and grammatically correct argument or thesis supported by well-documented research.
B. Prepare and present organized, professional, engaging confident and compelling verbal presentations that explain complex ideas and concepts to a wide variety of audiences.
C. Construct a well-organized, legible, coherent and convincingly laid out visual presentation that explains complex ideas and concepts in an efficient and effective manner.
D. Clearly articulate and document the iterative process of developing design ideas.
E. Constructively critique the work of others while actively listening to, seeking out, and responding to constructive criticism from peers, instructor and other experts.
F. Act as a respectful member of groups or teams, considering multiple viewpoints and strategies.

Professional expertise
A. Assess personal and professional predispositions to reflectively participate in a discourse on the motivations, intents and effects of urban design intervention.
B. Critically develop and apply ethical frameworks to appropriately respond to culturally, socially and economically diverse conditions. |

		C. Demonstrate an understanding of urban designers' legal responsibilities with respect to professional standards for public health, safety, welfare and other factors affecting design, construction and practice. D. Demonstrate an awareness of the basic principles of office organization, the different methods of project delivery, the corresponding forms of service contracts and the evolving legal context to render competent and responsible professional services. Substantive knowledge A. Identify and understand the history of the form and formation of cities. B. Identify the social, economic and political forces that shape the built environment. C. Analyze and discuss in written, visual and oral form relationships between regulations and built form. D. Develop regulatory framework that enable the production of built form in a manner seen preferable to that which currently exists. E. Identify the history and contemporary view of urban design as a professional pursuit. F. Demonstrate an understanding of the conventions, standards and applications pertaining to the production of design plans

College of Engineering, Design and Computing		
Program	**Degree**	**Outcomes**
Bioengineering	BS https://engineering.ucdenver.edu/academics/departments/bioengineering/accreditation	The department follows standard ABET criteria for Student Outcomes: a) Ability to apply knowledge of mathematics, science and engineering. b) Ability to design and conduct experiments, as well as to analyze and interpret data. c) Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. d) Ability to function on multidisciplinary teams. e) Ability to identify, formulate and solve engineering problems. f) Understanding of professional and ethical responsibility. g) Ability to communicate effectively. h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. i) Recognition of the need for and an ability to engage in life-long learning. j) Knowledge of contemporary issues. k) Ability to use the techniques, skills and modern engineering tools necessary for engineering practice. In addition, the department follows bioengineering-specific criteria: 1. Applying principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations) and statistics. 2. Solving bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems. 3. Analyzing, modeling, designing, and realizing bio/biomedical engineering devices, systems, components, or processes. 4. Making measurements on and interpreting data from living systems

| Bioengineering | MS

https://engineering.ucdenver.edu/academics/departments/bioengineering/accreditation | 1. Advanced Knowledge: Students will know how to take advantage of cutting edge tools, information and knowledge to address complex problems in bioengineering. The graduate student evaluates models and hypotheses using the appropriate experimental, mathematical and statistical approaches.
2. Ethical Conduct: Students will be able to recognize ethical issues, consider multiple points of view, and use critical and ethical reasoning to determine the appropriate behavior to follow in the practice of biomedical engineering in a global context.
3. Research and Development: Students will creatively synthesize theory, literature, and personal experience to: 1) generate new ideas or hypotheses in bioengineering, and 2) devise critical tests of hypotheses and/or develop unique solutions to bioengineering problems.
4. Multi-disciplinary Communication (written & oral communication): MS: Students will convey ideas or arguments in clear, concise, well-organized papers, presentations and proposals.
PhD: Students will have at least one written product ready for presentation at conference or in refereed journal. Students are capable of a fluent debate in oral defense.
5. Multi-disciplinary Communication (interpersonal communication): Students will demonstrate the ability to work with other professionals in their own fields and to collaborate with colleagues of diverse scientific backgrounds.
6. Clinical Knowledge: The students will possess a significant command of medical terminology/knowledge in the areas of anatomy, physiology, pathology, medical procedures and technology in order to communicate effectively with clinical staff over opportunities to improve patient comfort/longevity through new and improved devices, drugs, surgical procedures or planning |

| Bioengineering | PhD

https://engineering.ucdenver.edu/academics/departments/bioengineering/accreditation | 1. Advanced Knowledge: Students will know how to take advantage of cutting edge tools, information and knowledge to address complex problems in bioengineering. The graduate student evaluates models and hypotheses using the appropriate experimental, mathematical and statistical approaches.
2. Ethical Conduct: Students will be able to recognize ethical issues, consider multiple points of view, and use critical and ethical reasoning to determine the appropriate behavior to follow in the practice of biomedical engineering in a global context.
3. Research and Development: Students will creatively synthesize theory, literature, and personal experience to: 1) generate new ideas or hypotheses in bioengineering, and 2) devise critical tests of hypotheses and/or develop unique solutions to bioengineering problems.
4. Multi-disciplinary Communication (written & oral communication): MS: Students will convey ideas or arguments in clear, concise, well-organized papers, presentations and proposals.
PhD: Students will have at least one written product ready for presentation at conference or in refereed journal. Students are capable of a fluent debate in oral defense.
5. Multi-disciplinary Communication (interpersonal communication): Students will demonstrate the ability to work with other professionals in their own fields and to collaborate with colleagues of diverse scientific backgrounds.
6. Clinical Knowledge: The students will possess a significant command of medical terminology/knowledge in the areas of anatomy, physiology, pathology, medical procedures and technology in order to communicate effectively with clinical staff over opportunities to improve patient comfort/longevity through new and improved devices, drugs, surgical procedures or planning.
7. (PhD Only) Scholarly Achievement and Research Outcomes: Students can articulate an original idea in the context of the relevant technical literature. Students apply appropriate methods correctly, and findings constitute an original contribution to the student's field. |

Civil Engineering	BS https://engineering.ucdenver.edu/academics/departments/civil-engineering/accreditation/constr-undergrad-pgms	a) An ability to apply knowledge of mathematics, science, and engineering. b) An ability to design and conduct experiments, as well as to analyze and interpret data. c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. d) An ability to function on multidisciplinary teams. e) an ability to identify, formulate, and solve engineering problems. f) An understanding of professional and ethical responsibility. g) an ability to communicate effectively. h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. i) A recognition of the need for, and an ability to engage in life-long learning. j) A knowledge of contemporary issues. k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
Civil Engineering	CEM https://engineering.ucdenver.edu/academics/departments/civil-engineering/accreditation/CEM-BS	1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics 2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors 3. An ability to communicate effectively with a range of audiences 4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts 5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives 6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions 7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Civil Engineering	CM https://engineering.ucdenver.edu/academics/departments/civil-engineering/accreditation/accreditation-cm-bs	1. An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline. 2. An ability to formulate or design a system, process, procedure or program to meet desired needs. 3. An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions. 4. An ability to communicate effectively with a range of audiences. 5. An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts. 6. An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty
Civil Engineering	Meng https://engineering.ucdenver.edu/academics/departments/civil-engineering/accreditation/CVEN-grad-pgms	1. Technical Ability: Student shows mastery of principal concepts, fluency with relevant policies and methods, and rigorous basis for choices and judgment. 2. Communication Skills: Student is deliberate, concise, and focused, with clear and consistent organization and structure, so presentation is persuasive. Written products ready for presentation at conference or in refereed journal. Fluent debate in oral defense. 3. Scholarly Achievement: Student articulates an original idea that is presented in the context of the relevant technical literature. The methods are appropriate, so the conclusions are valid.
Civil Engineering	MS https://engineering.ucdenver.edu/academics/departments/civil-engineering/accreditation/CVEN-grad-pgms	1. Technical Ability: Student shows mastery of principal concepts, fluency with relevant policies and methods, and rigorous basis for choices and judgment. 2. Communication Skills: Student is deliberate, concise, and focused, with clear and consistent organization and structure, so presentation is persuasive. Written products ready for presentation at conference or in refereed journal. Fluent debate in oral defense. 3. Scholarly Achievement: Potential for impact demonstrated by grant proposals, patent. 4. Research Methods: Research methods are appropriate and innovative.

Civil Engineering	PhD https://engineering.ucdenver.edu/academics/departments/civil-engineering/accreditation/CVEN-grad-pgms	1. Technical Ability: Student shows mastery of principal concepts, fluency with relevant policies and methods, and rigorous basis for choices and judgment. 2. Communication Skills: Student is deliberate, concise, and focused, with clear and consistent organization and structure, so presentation is persuasive. Written products ready for presentation at conference or in refereed journal. Fluent debate in oral defense. 3. Scholarly Achievement: Potential for impact demonstrated by grant proposals, patent applications, or startup companies. 4. Research Outcomes: Appropriate methods applied, assessed, and updated as necessary. Findings constitute a major step forward in the student's field. Impact demonstrated by funded grants, patent registrations, or startup companies.
Computer Science	MS https://engineering.ucdenver.edu/academics/departments/computer-science-and-engineering/accreditation	1. Knowledge: Students must acquire both a conceptual and operational knowledge of the following four core areas of Computer Science •Theory of Automata •Algorithms •Computer Architectures •Operating Systems 2. Skills: Students must acquire the following skills at a level commensurate with graduate work •Read and critically evaluate scientific literature •Identify current problems, formulate assumptions, and conduct and interpret their own research project •Ability in specification, design and implementation •Precision and clarity in the oral and written communication of scientific ideas •Application of scientific concept to real world problem solving
Computer Science & Information Systems	PhD https://engineering.ucdenver.edu/academics/departments/computer-science-and-engineering/accreditation	1. Students will demonstrate detailed knowledge of major CSIS research areas. 2. Student will demonstrate knowledge of major research methodology areas. 3. Students will perform independent original research and write research papers based on the research results. 4. Students will make research presentations to peer audiences. 5. Students will demonstrate understanding of university-level instruction issues especially as the issues relate to CSIS classes

Electrical Engineering	MS https://engineering.ucdenver.edu/academics/departments/electrical-engineering/accreditation	1. Demonstrate advanced knowledge in a chosen subfield of Electrical Engineering. 2. Have the ability to identify and derive solutions to advanced problems using their knowledge of math and science. 3. Have the ability to document engineering problems and solutions in a professional setting
Electrical Engineering	PhD https://engineering.ucdenver.edu/academics/departments/electrical-engineering/accreditation	1. Demonstrated expertise in their chosen subfield of Electrical Engineering. 2. The ability to conduct independent research in their chosen subfield of Electrical Engineering. 3. The ability to communicate technical concepts both oral and written
Engineering and Applied Science	PhD https://engineering.ucdenver.edu/academics/graduate-programs/phd-in-engineering-and-applied-science	*REFER TO HOST DEPARTMENT (i.e., Civil, Mechanical, Electrical, Computer Science and Engineering)* 1. An ability to demonstrate mastery of fundamental principles in Mechanical Engineering 2. An ability to prepare and publish manuscripts in the archival literature
Mechanical Engineering	BS https://engineering.ucdenver.edu/academics/departments/mechanical-engineering/accreditation	A. an ability to apply knowledge of mathematics, science, and engineering B. an ability to design and conduct experiments, as well as to analyze and interpret data C. an ability to design a system component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability D. an ability to function on multi-disciplinary teams E. an ability to identify, formulate, and solve engineering problems F. an understanding of professional and ethical responsibility G. an ability to communicate effectively the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context H. a recognition of the need for, and an ability to engage in life-long learning I. a knowledge of contemporary issues J. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Mechanical Engineering	Meng https://engineering.ucdenver.edu/academics/departments/mechanical-engineering/mechanical-engineering-programs/meng-in-mechanical-engineering	A. An ability to apply knowledge of mathematics, science, and engineering B. An ability to design and conduct experiments, as well as to analyze and interpret data C. An ability to analyze or design a system, component, or process to meet desired needs E. An ability to identify, formulate, and solve engineering and science problems G. An ability to communicate effectively K. An ability to use the techniques, skills, and modern engineering and science tools necessary for engineering practice
Mechanical Engineering	MS https://engineering.ucdenver.edu/academics/departments/mechanical-engineering/accreditation	A. An ability to apply knowledge of mathematics, science, and engineering B. An ability to design and conduct experiments, as well as to analyze and interpret data C. An ability to analyze or design a system, component, or process to meet desired needs E. An ability to identify, formulate, and solve engineering and science problems G. An ability to communicate effectively K. An ability to use the techniques, skills, and modern engineering and science tools necessary for engineering practice
Mechanical Engineering	PhD https://engineering.ucdenver.edu/academics/departments/mechanical-engineering/accreditation	1. An ability to demonstrate mastery of fundamental principles in Mechanical Engineering 2. An ability to prepare and publish manuscripts in the archival literature

College of Liberal Arts and Sciences		
Program	**Degree**	**Outcomes**
Anthropology	BA https://clas.ucdenver.edu/anthropology/undergraduate-learning-outcomes	1. Demonstrate familiarity with the history of anthropological thoughts, theories, and current major schools of thought within the discipline. 2. Demonstrate familiarity with human diversity, particularly people and cultures in at least one geographic region of the world over time (ELO of intercultural knowledge and competence, civic knowledge and engagement on a local and global level). 3. Apply anthropological research methods in collecting, organizing, and analyzing data in at least one subfield of anthropology (ELO of inquiry and analysis, critical thinking, quantitative literacy, information literacy, problem solving, ethical reasoning and action, foundations and skills for lifelong learning and integrative and applied learning). 4. Demonstrate competence in reading and critical evaluation of information from the perspective of behavioral science and from the perspectives of anthropological theory and ethics, thus fulfilling requirements for the well-rounded liberal arts education (ELO of critical thinking, reading, quantitative literacy, information literacy, problem solving, ethnical reasoning and action, foundations and skills for lifelong learning, and integrative and applied learning). 5. Demonstrate their ability to effectively communicate their thoughts orally and in writing (ELO of written communication and oral communication). 6. Students will demonstrate an understanding of Anthropological ethics. This includes being able to identify and articulate the purpose, use and relevancy of a study, and being well versed in issues of informed consent, ownership of data/images, rights of descendent and/or local populations, rights and access to archaeological/paleoanthropological sites, and the protection of vulnerable populations.

Anthropology	MA https://clas.ucdenver.edu/anthropology/graduate-learning-outcomes	1. Students will demonstrate theoretical sophistication and the ability to situate anthropological research within a paradigmatic theoretical stance. 2. Students will demonstrate understanding of the basic tenets and underlying assumptions of both a) the structure of science/science as a way of knowing and b) post-structuralist approaches. 3. Within the students' subdisciplinary track they will demonstrate knowledge of the major schools of thought. Specifically, students in the archaeological track will demonstrate knowledge of processualism, political economy, contextualism/interpretivist perspectives, and agency/structure interaction. Students in the biological track will demonstrate knowledge of general evolutionary theory, human evolution and human evolutionary ecology, human variation and adaptability, theories of morphological evolution, and the theory of behavioral evolution. Students in the medical and political economy/sustainability tracks will demonstrate knowledge of the major schools of thought in cultural anthropology including political economy, critical theory, and the interpretive School. 4. All students will demonstrate methodological sophistication. Specifically, they will demonstrate an ability to create a research design by being able to clearly articulate a research question and how it should be investigated. Additionally, they will be able to evaluate the structure and elements of scientific articles and/or creative work by identifying the following aspects of these works: the research question, underlying assumptions, methods, how results are related back to the research question, and the ability to critically evaluate the methodological rigor of research proposals and peer reviewed articles. Finally, students will be able to apply the appropriate methods to specific questions. 5. Students will be able to communicate orally and in writing in a professional manner by producing professional quality presentations and papers that contain well constructed arguments.

| Applied Geography and Geo-Spatial Science | MA

https://clas.ucdenver.edu/ges/programs/master-arts/our-approach | Program Learning Goal #1: Knowledge Base of Geography
1.1 Demonstrate in-depth knowledge of the theory, methods, and research in the discipline of geography.
1.2 Assess the capacity for the discipline of geography to provide a useful and robust forum for exploring, analyzing and responding to developments at the human-environment interface.
1.3 Connect key theories, concepts, techniques and technologies within the subfields of human and physical geography, as well as geographic information science and technology, through real-world practical applications at the local, regional, and global scales.

Program Learning Goal #2: Analytic Approaches and Methods
2.1 Apply systems thinking and critical thinking skills to analyze problems and potential solutions in socio-economic-ecological systems at the human-environment interface.
2.2 Practice obtaining, analyzing, and interpreting complex geographic data.
2.3 Demonstrate proficiency in the application of state-of-the-art geo-spatial analytical methods, techniques, and technologies.
2.4 Critically evaluate development and research in the human and physical geographic realms, and at the human environment interface.

Program Learning Goal #3: Application and Community Engagement
3.1 Understand and demonstrate how scientific, specifically geographical principles, research, and geospatial information science and technologies, influence society and policy.
3.2 Demonstrate ability to work on real-world challenges to combine theory and practice in responding to local to global issues at community, non-profit, corporate or government contexts.
3.3 Practice effective communication of geographic concepts and problems to both scientific and public audiences.

Program Learning Goal #4: Integrative and Inclusive Approaches
4.1 Understand and synthesize complex relationships among components of natural and human systems.
4.2 Apply acquired skills to work as an individual and as a team in to address real-world challenges.
4.3 Draw on diverse perspectives to examine complex social and environmental issues and practice global citizenship. |

Applied Mathematics	MS
	
	https://clas.ucdenver.edu/mathematical-and-statistical-sciences/graduate-program-goals-and-objectives
		1. Students should gain operational understanding of Real Analysis at a level commensurate with their progress in the program.
		2. Students should gain operational understanding of Linear Algebra at a level commensurate with their progress in the program.
		3. Students will be able to orally present their mathematics, or the mathematics of others, with the aid of relevant presentation software (PowerPoint, LaTeX) as appropriate.
		4. Students will be able to present mathematics in writing, utilizing the appropriate conventions of the discipline. This may involve summary and analysis of the mathematics of others, development (including proof) of their own mathematics, or both.
		5. Students will acquire either (1) a depth of knowledge in one of the following mathematical disciplines.
		   a. Computational Mathematics
		   b. Discrete Mathematics
		   c. Operations Research
		   d. Probability
		   e. Statistics,
		or (2) a breadth of knowledge across these disciplines at an intermediate or advanced graduate level.

Applied Mathematics	PhD
	
	https://clas.ucdenver.edu/mathematical-and-statistical-sciences/graduate-program-goals-and-objectives
		1. Students should gain operational understanding of Real Analysis at a level commensurate with their progress in the program.
		2. Students should gain operational understanding of Linear Algebra at a level commensurate with their progress in the program.
		3. Students will be able to orally present their mathematics, or the mathematics of others, with the aid of relevant presentation software (PowerPoint, LaTeX) as appropriate.
		4. Students will be able to present mathematics in writing, utilizing the appropriate conventions of the discipline. This may involve summary and analysis of the mathematics of others, development (including proof) of their own mathematics, or both.
		5. Students will acquire either (1) a depth of knowledge in one of the following mathematical disciplines
		   a. Computational Mathematics
		   b. Discrete Mathematics
		   c. Operations Research
		   d. Probability
		   e. Statistics,
		or (2) a breadth of knowledge across these disciplines at an intermediate or advanced graduate level.

		6. Doctoral students will be able to produce original, publishable mathematics research.
Biochemistry	BS https://clas.ucdenver.edu/chemistry/undergraduate-students/bs-biochemistry	1. Students possess an adequate knowledge base in several sub-disciplines in chemistry, including biochemistry, as defined by the American Chemical Society. 2. Students can rely on this knowledge base to link more than one biochemical principle to solve problems, both qualitatively and quantitatively, individually and in groups. 3. Students can (a) recognize and define a general problem related to biochemistry, (b) design and carry out at least one significant experiment which addresses the problem, and (c) competently analyze and report their experimental results in oral and written form, adhering to proper conventions. 4. Students can (a) identify when information is needed to solve a problem, (b) identify and locate appropriate sources of information, and (c) effectively extract and construct scientific meaning from critical reading of written material, including primary, secondary, and instructional literature. 5. Students understand the concepts of safe laboratory practice, use ethical reasoning to evaluate their practices in performing experiments and communicating results, and conduct themselves responsibly according to the ethical and safety standards of the profession.

| Biology | BS

https://clas.ucdenver.edu/integrative-biology/academics/undergraduate-programs#biology_major-73 | 1. Ability to apply the process of science through inquiry and analysis. Biology is evidence based and grounded in the formal practices of observation, experimentation, and hypothesis testing.
2. Ability to use quantitative reasoning. Biology relies on applications of quantitative analysis and mathematical reasoning.
3. Ability to use modeling simulation. Biology focuses on the study of complex systems. All students should understand how mathematical and computational tools describe living systems.
4. Ability to tap into the interdisciplinary nature of science. Biology is an interdisciplinary science. Integration among subfields in biology, as well as integration between biology and other disciplines, has advanced our fundamental understanding of living systems.
5. Ability to communicate and collaborate with other disciplines. Biology is a collaborative scientific discipline. Biological research increasingly involves teams of scientists who contribute diverse skills to tackling large and complex biological problems.
6. Ability to understand the relationship between science and society. Biology is conducted in a societal context. Biologists have an increasing opportunity to address critical issues affecting human society by advocating for the growing value of science in society, by educating all students about the need for biology to address pressing global problems. |

| Biology | MS

https://clas.ucdenver.edu/integrative-biology/academics/graduate-programs | 1. Data and theory Production
Students must:
a) Engage in rigorous and original research that advances knowledge in their field of study
b) produce a quantity of original data or theory consistent with productivity of recent MS graduates
2. Specialized knowledge and skills within sub-discipline:
Students must:
a) demonstrate specialized knowledge of content and methodology within their chosen subfield; and,
b) demonstrate an ability to acquire knew knowledge and skills as the field changes.
3. Apply the process of science through inquiry and analysis:
Students must:
a) characterize the state of the field and identify critical gaps in knowledge or ability;
b) identify a testable/doable question(s) that could contribute the gaps in the state of the field;
c) evaluate reliability of sources of information and evidence;
d) locate, summarize and explain how a study contributes to the field;
e) develop and critique scientific hypotheses;
f) design and conduct observational and experimental studies with attention to replication and statistical design constraints;
g) analyze and interpret data to form conclusions;
h) articulate variables and assumptions required by a study; and,
i) place scientific findings into a larger intellectual/contextual framework.
4. Use abstract/quantitative reasoning:
Students must:
a) manage and organize data sets;
b) create and interpret data visualizations (e.g. graphs, tables);
c) apply descriptive and inferential statistical methods of design and analysis for diverse study questions;
d) use data as evidence to draw conclusions about biological processes;
e) apply mathematical formulas to reason about biological processes and understand the underlying probability in the calculations;
f) describe the assumptions used to make a model and evaluate alternate models;
g) explain the effects of probability and uncertainty in biological models; |

		h) interpret models given changing variables; i) create a conceptual model to represent related components and processes of biological systems; j) create a quantitative model to represent related components and processes of biological systems; and, k) interpret quantitative and conceptual models. 5. Communicate and collaborate Students must: a) Engage in a dialogue with other scientists about content, design, analysis, and techniques in an appropriate manner; b) demonstrate an understanding of context, audience, and purpose in writing and other communications; c) display appropriate conventions of organization, content, formatting, presentation, and style in writing and other communications; d) correctly cite high-quality, relevant sources to support arguments; and, e) communicate scientific understanding to both scientific and general audiences f) present research results to at least one professional conference. 6. Context of Science Students must: a) Explain the implications of their research for society; b) Explain relationships between biological principles and global, economic, environmental and societal issues; c) Describe how the history of scientific thought has shaped the development of scientific principles; and, d) Understand the philosophy of science.
Chemistry	BS https://clas.ucdenver.edu/chemistry/undergraduate-students/bachelor-science	1. Students possess an adequate knowledge base in several sub-disciplines of chemistry as defined by the American Chemical Society. 2. Students can rely on this knowledge base to link more than one chemical principle to solve problems, both qualitatively and quantitatively, individually and in groups. 3. Students can (a) recognize and define a general problem in any several sub-disciplines of chemistry, (b), design and carry out at least one significant experiment which addresses the problem, and (c) competently analyze and report their experimental results in oral and

		written form, adhering to proper chemical conventions. 4. Students can (a) identify when information is needed to solve a problem, (b) identify and locate appropriate sources of information, and (c) effectively extract and construct scientific meaning from critical reading of written material, including primary, secondary, and instructional literature. 5. Students understand the concepts of safe laboratory practice, use ethical reasoning to evaluate their practices in performing experiments and communicating results, and conduct themselves responsibly according to the ethical and safety standards of the profession
Chemistry	MS https://clas.ucdenver.edu/chemistry/graduate-students/program-learning-goals	1. Students possess an understanding of the basic concepts of the fundamental areas of chemistry (physical, analytical, inorganic, and organic) significantly beyond their baseline knowledge and possess an extended understanding of one or more of these sub-disciplines. 2. Students can effectively carry out a research project assimilating knowledge along the way, effectively report their experimental results in oral and written form, adhering to proper chemical conventions and develop the ability to use this knowledge to address new scientific questions.

Clinical Health Psychology	PhD https://clas.ucdenver.edu/psychology/graduate-studies/program-curriculum	Goal #1: Prepare students to be entry-level clinical psychology scientists. Objectives: a) Students will acquire knowledge of research methods in clinical psychology. b) Students will acquire basic understanding of statistical analytic methods in clinical psychology. c) Students will be able to conduct empirical research to contribute to the knowledge base in clinical psychology. Competencies: a) Demonstrate entry-level ability to review, integrate, and critically evaluate research in clinical psychology. b) Demonstrate entry-level ability to design and conduct empirical research. c) Demonstrate entry-level ability to disseminate research findings. d) Demonstrate critical and integrative thinking skills as well as intellectual curiosity. Goal #2: Students will be trained to be capable entry-level practitioners of clinical psychology. Objectives: a) Students will acquire knowledge of theory and research to understand psychological disorders. b) Students will acquire knowledge of theory and research and related skills to conduct effective evidence-based psychological assessment and psychotherapeutic interventions. c) Students will acquire knowledge regarding the application of ethical concepts and awareness regarding professional activities. d) Students will be knowledgeable and sensitive to individual, group, and cultural differences in clinical practice. Competencies: a) Demonstrate entry-level knowledge of psychological disorders. b) Demonstrate entry-level ability to diagnose psychological disorders. c) Demonstrate entry-level ability to conduct psychological assessment. d) Demonstrate entry-level ability to select and deliver empirically-supported and evidence-based psychological interventions. e) Understand ethical principles and demonstrate ethical behavior in the application of clinical practice. f) Demonstrate sensitivity to cultural and diversity issues and adapt

| | | clinical practice accordingly.

Goal #3: Students will be trained to be competent as entry-level clinical psychology professionals with knowledge and skills in clinical health psychology.
Objectives:
a) Students will acquire basic knowledge of biopsychosocial principles and research relevant to clinical health psychology.
b) Students will acquire basic, entry-level skills to conduct research on health psychology topics and provide clinical psychological services in clinical health psychology settings.
Competencies:
a) Demonstrate knowledge of biopsychosocial principles.
b) Demonstrate knowledge of clinical health psychology research
c) Demonstrate knowledge and entry-level skill in application of clinical psychological skills in clinical health psychology settings |
|---|---|---|

Communication	BA https://clas.ucdenver.edu/communication/communication-undergraduate-learning-outcomes	Production of Communication: Create ethical and effective communication across oral, written, and digital forms. 1. Create messages appropriate to audience, purpose, and context 2. Demonstrate the ability to accomplish communicative goals 3. Attempt to influence public discourse Analysis of Communication: Analyze communication in all it forms. 1. Describe the communication discipline and its central questions 2. Employ communication theories, perspectives, principles, and concepts 3. Engage in communication inquiry 4. Critically analyze messages Creation of Community: Foster civic engagement and promote diverse and inclusive communities. 1. Apply ethical communication principles and practices 2. Utilize communication to embrace difference 3. Attempt to influence public discourse
Communication	MA https://clas.ucdenver.edu/communication/programs/master-arts/communication-ma-learning-outcomes	Utilize communication concepts and theories to solve problems in professional, personal, and community/civic life 1. Select and use appropriate methods to collect, analyze, and interpret data to answer communication research questions. 2. Communicate ethically and effectively; orally, in writing, and across digital platforms. 3. Identify, critique, and evaluate research from across major fields of communication
Economics	BA https://clas.ucdenver.edu/economics/programs/bachelor-arts	1. To be able to apply the general concepts learned from economic theory and methods to specific fields of economics. 2. To be able to articulate an economic hypotheses and interpret econometric tests of the hypothesis. 3. To be able to explain and evaluate the relevant benefits and costs to consider when comparing decision options and policy choices. 4. To be able to communicate, in written form, basic economic theories, concepts, analytical methods, and policy choices.
Economics	MA https://clas.ucdenver.edu/economics/programs/master-arts-economics	1. Use and develop theoretical economic models to analyze various economic issues, to communicate results, and to make policy recommendations. 2. Understand the challenges in identifying causal relationships using data analysis. 3. Use and develop statistical and econometric models, based on

		economic theory, to analyze various economic issues and make policy recommendations. 4. Communicate, in written form and verbally, theoretical and econometric findings to an audience of economics professionals and to a general audience.
English	BA https://clas.ucdenver.edu/english/majors	*Whereas the categories of assessment remain the same for undergraduate and graduate level courses, their criteria differ. The research essay/final project provides the standard for evaluation. In split level courses, graduate assignments differ from undergraduate ones in requiring research and writing at a professional standard. Graduate level course requirements usually include a demonstration of teaching.* 1. Reading and Analysis: Students practice close reading, analysis, and interpretation of discourses and media. Through classroom discussions and written assignments, students practice rigorous and sustained close readings of texts, sharpening their interpretative skills. Students are attentive to words, meaning, nuance, and contradictions in texts that allow them to expand their interpretations and contribute to scholarly conversations. 2. Critical Inquiry and Context: Relying on their area of specialization, students engage with current scholarship in order to locate their arguments in specific and relevant contexts, identifying the generic, cultural, historical, and intellectual influences that shape meaning and implications. Students learn to think of texts and individuals as being enmeshed in particular histories, cultures, and critical conversations. 3. Written Communication: Students write persuasively and analytically across genres and modes. Presenting their arguments clearly and succinctly, they identify and distinguish among disciplinary conventions, evaluate sources using discipline-specific theories and methods. They utilize critical reading skills to evaluate, apply, and synthesize evidence and/or sources in support of a claim, analyzing assumptions and bias. Students reach conclusions based on research, revise and edit their work to meet scholarly standards. 4. Content: Students learn to create and develop ideas within the context of texts and current scholarship. Students demonstrate appropriate nomenclature in analytical/ theoretical analyses. They learn to apply scholarly protocols of methodology and evaluate sources in their research.

		Each of the tracks within the English program (i.e., writing, film, literature) has additional learnong outcomes specific to the track.
English	MA https://clas.ucdenver.edu/english/sites/default/files/attached-files/program_learning_goals_ma_in_english_studies.pdf	*Whereas the categories of assessment remain the same for undergraduate and graduate level courses, their criteria differ. The research essay/final project provides the standard for evaluation. In split level courses, graduate assignments differ from undergraduate ones in requiring research and writing at a professional standard. Graduate level course requirements usually include a demonstration of teaching.* 1. Reading and Analysis: Students practice close reading, analysis, and interpretation of discourses and media. Through classroom discussions and written assignments, students practice rigorous and sustained close readings of texts, sharpening their interpretative skills. Students are attentive to words, meaning, nuance, and contradictions in texts that allow them to expand their interpretations and contribute to scholarly conversations. 2. Critical Inquiry and Context: Relying on their area of specialization, students engage with current scholarship in order to locate their arguments in specific and relevant contexts, identifying the generic,

			cultural, historical, and intellectual influences that shape meaning and implications. Students learn to think of texts and individuals as being enmeshed in particular histories, cultures, and critical conversations. 3. Written Communication: Students write persuasively and analytically across genres and modes. Presenting their arguments clearly and succinctly, they identify and distinguish among disciplinary conventions, evaluate sources using discipline-specific theories and methods. They utilize critical reading skills to evaluate, apply, and synthesize evidence and/or sources in support of a claim, analyzing assumptions and bias. Students reach conclusions based on research, revise and edit their work to meet scholarly standards. 4. Content: Students learn to create and develop ideas within the context of texts and current scholarship. Students demonstrate appropriate nomenclature in analytical/ theoretical analyses. They learn to apply scholarly protocols of methodology and evaluate sources in their research.
English Writing, Rhetoric, and Technology	BA https://clas.ucdenver.edu/english/english-writing-rhetoric-technology-major		*Whereas the categories of assessment remain the same for undergraduate and graduate level courses, their criteria differ. The research essay/final project provides the standard for evaluation. In split level courses, graduate assignments differ from undergraduate ones in requiring research and writing at a professional standard. Graduate level course requirements usually include a demonstration of teaching.* 1.Reading and Analysis: Students read with attention to textual details and rhetorical strategies. They identify models and strategies in other writers' works and discipline-specific theories to use in their own expository, argumentative, and nonfiction work. They demonstrate the ability to summarize accurately, explicate rhetorical elements, and analyze key motifs and meanings in order to assess rhetorical works persuasively and insightfully. 2.Critical Inquiry and Context: Students recognize texts as rhetorical responses to historically, politically, and culturally specific contexts. They examine these rhetorical contexts by looking for patterns in existing discourses, and they construct their own positions by locating them in relation to those in an ongoing conversation. Students can discuss the socio-historic contingencies that influence experiences,

		understandings, and evaluations of discourses in various genres. They develop the ability to reflect upon the contingency of their own perspectives and to recognize others' in order to discern the cultural, political, and material conditions that influence experience.
		3.Written Communication: Students write persuasively across a variety of nonfiction genres and modes. In their written composition, students can identify and distinguish among disciplinary conventions, evaluate sources, and synthesize arguments using rhetorical theories and methods. Students can modify the delivery of their ideas in ways appropriate for a given audience, and they can revise their work in response to audience reaction.
		4.Content: Students demonstrate knowledge of major rhetorical genres, the impact of historical movements on rhetoric, analytical or theoretical approaches to texts, and the elements of craft and form so as to understand written and visual forms of expression within the complex traditions from which they emerged and to which they respond. Students can discuss and write about these topics using rhetorical theories and methods.

| Environmental Sciences | MS

https://clas.ucdenver.edu/ges/programs/master-science-environmental-sciences | Learning Goal #1: Knowledge Base of Environmental Processes and Systems
1.1 Critically evaluate the interdisciplinary nature of environmental science through the integration of the natural and physical sciences along with engineering, extending to the social sciences.
1.2 Demonstrate knowledge of a specific field of research within the context of the existing literature.
1.3 Conduct meaningful research using fundamental scientific principles, literature and analytical procedures and instrumentation.
1.4 Critically evaluate scientific and causal arguments.

Learning Goal #2: Analytic Approaches and Methods
2.1 Demonstrate knowledge of appropriate analytic methods for analysis of environmental data.
2.2 Apply analytic methods, including statistical or geospatial techniques, to environmental data for studying scientific phenomena.
2.3 Obtain, analyze and interpret environmental data.

Learning Goal #3: Application and Community Engagement
3.1 Understand and demonstrate how student work influences society and promotes environmental stewardship within the student's realm of influence and community.
3.2 Demonstrate ability to work on real-world challenges to combine theory and practice in responding to local to global issues at community, non-profit, corporate or government contexts.
3.3 Practice effective communication of environmental science concepts and problems to both scientific and public audiences.

Learning Goal #4: Integrative and Applied Learning
4.1 Understand and synthesize complex relationships among components of natural and human systems.
4.2 Apply acquired skills to work as an individual or team in environmental research to real-world challenges.
4.3 Draw on diverse perspectives to examine complex social and environmental issues and practice global citizenship. |

Ethnic Studies	BA https://clas.ucdenver.edu/ethnic-studies/course-offerings	1. Marginalization a) Explanation of theories and histories of marginalization and discrimination b) Discussion of implications of biased treatment on contemporary events 2. Social Access and Rights a) Identification of diverse social positions b) Analysis of how social position affects access 3. Collective identities a) Description of evolution and social construction of collective identities 4. Self-Awareness a) Awareness of one's own attitudes and identities in the context of cultural diversity b) Recognition of the connection between one's own attitudes and identities and personal and professional interactions 5. Contributions a) Summarization of contributions and impact by diverse groups to institutions and society
French	BA https://clas.ucdenver.edu/modLang/programs/bachelor-arts	1. Students should be able to describe and differentiate the phonetic features of modern standard French. 2. Students must show familiarity with at least one period /genre of French literature. 3. Students must show an academic appreciation of the most important periods of French history and culture. 4. Students must show an awareness of current cultural issues in the Francophone world. 5. Students must demonstrate the linguistic proficiency to speak and understand everyday standard French, including the ability to engage in intellectual discussion in academic settings using correct pronunciation, grammar and vocabulary. 6. Students must demonstrate the ability to read and write modern, standard French with sufficient fluency and correctness that literary or linguistic analysis of French texts can be performed without being hindered by grammatical problems. 7. Students must demonstrate the ability to analyze and interpret literary texts in terms of style, structure, and themes and the ability to communicate such interpretations competently.

| Geography | BA

https://clas.ucdenver.edu/ges/programs/bachelor-arts/learning-goals-outcomes | Learning Goal #1: Knowledge Base of Geography, Environmental Science, and Sustainability
a) Compare the major concepts, theoretical and spatial perspectives, and historical trends in Geography.
b) Explain the distinctive physical characteristics of places and regions in terms of geomorphological, hydrological, climatological, and biogeographical processes.
c) Explain the distinctive human and cultural characteristics of places and regions in terms of social, cultural, economic, and political processes.
d) Analyze, and interpret interconnections between human activities and the natural and built environment at different geographical and temporal scales.
e) Evaluate the sustainability and resilience of human-environment systems in the past, present, and future

Learning Goal #2: Analytic Approaches and Methods
a) Apply geospatial science & technologies.
b) Apply qualitative and/or quantitative geographic analytical methods (eg laboratory, field, and computational).
c) Communicate complex geographical information through writing, graphics, presentations, animations, and mapping.
d) Analyze, and interpret complex problems in research and practice using critical inquiry, systems thinking, synthesis, and interdisciplinary approaches to solve complex problems in research and practice.

Learning Goal #3: Global & Diverse Socio-Cultural Perspectives
a) Deconstruct evolving and interconnected social, cultural, economic, and political relationships at the global scale.
b) Draw on diverse perspectives to examine complex social and environmental issues and practice global citizenship.

Learning Goal #4: Application and Community Engagement
a) Understand key geographical concepts, their multidisciplinary nature, and apply to the real-world.
b) Participate in best practices for engagement with local, regional, and/or global communities. |

Health & Behavioral Science	PhD https://clas.ucdenver.edu/hbsc/degree-programs/phd-program	1. An ability to integrate and apply multiple social and behavioral science theoretical perspectives to particular health and health care problems. 2. A basic understanding of the broad range of methods and research designs employed in the health and behavioral sciences. 3. Advanced proficiency in a particular method or set of methods. 4. Precision and clarity in the oral and written communication of complex ideas.
Health Economics	MS https://clas.ucdenver.edu/economics/programs/master-science-health-economics	1. Understand the economic approach to studying the healthcare sector, health behaviors, and health outcomes. 2. Understand how different markets function in the health care sector, such as the market for health care, health insurance, health labor (such as physicians and nursing), and pharmaceuticals. 3. Understand the challenges in identifying causal relationships using health data. 4. Use and develop statistical and econometric models, based on economic theory, to analyze various economic issues and make policy recommendations.
Health Economics	PhD https://clas.ucdenver.edu/economics/programs/phd-health-economics	1. Understand the economic approach to studying the healthcare sector, health behaviors, and health outcomes. 2. Understand how different markets function in the health care sector, such as the market for health care, health insurance, health labor (such as physicians and nursing), and pharmaceuticals. 3. Understand the challenges in identifying causal relationships using health data. 4. Use and develop statistical and econometric models, based on economic theory, to analyze various economic issues and make policy recommendations. 5. Communicate, in written form and verbally, theoretical and econometric findings to an audience of economics professionals and to a general audience.

| History | BA https://clas.ucdenver.edu/history/bachelor-arts-history | 1. Knowledge of human cultures a) Identify people, events, and processes significant to their courses of study b) examine similarities and differences across chronologies, geographies, and themes c) explain how past peoples understood their worlds and how those understandings shaped the ways they acted d) analyze the range of social, cultural, political, and economic possibilities available to people in particular contexts e) analyze why change occurs 2. Intellectual and practical skills 2.1 Inquiry and Analysis – History students will a) develop a creative, focused, and manageable question for historical research b) synthesize evidence representing a variety of perspectives c) explain the challenges of constructing historical narratives using incomplete and contradictory evidence d) formulate a thesis and conclusion substantiated by primary and secondary source analysis e) critique alternative conclusions 2.2 Critical Thinking – History students will a) identify and analyze the central issues, arguments, and points of view in primary and secondary sources b) evaluate authors' arguments and assess their evidence and conclusions c) critique their own and others' assumptions and the contexts in which they develop those assumptions d) use the concept of historiography, in order to compare and contrast a variety of scholarly texts e) analyze the ways the histories historians write are products of particular historical contexts 2.3 Written Communication – History students will a) establish the context, audience, and purpose of their written assignments b) master the conventions of historical writing, including: clear paper organization (thesis, evidence, conclusion); logical paragraph organization; clear, direct, and engaging language; proper citation |

		methods, using Chicago style
		c) compose papers employing narrative, descriptive, and analytical writing to convey their historical knowledge and analytical skills
		2.4 Information literacy – History students will
		a) determine the types of sources that are relevant to a research question
		b) locate and evaluate appropriate materials for historical research, using book catalogs (Skyline, Prospector, WorldCat), article databases (particularly America: History and Life, Historical Abstracts, and JSTOR), and interlibrary loan
		c) demonstrate understanding of the ethical and legal issues surrounding the use of published and unpublished materials, including what constitutes plagiarism and how to cite sources
		3. Personal and social responsibility
		3.1 Intercultural knowledge and competence – History students will
		a) evaluate how their cultural biases inform their understandings of history
		b) evaluate the ways that historians of different cultural perspectives produce different histories
		c) interpret historical evidence with consideration to historical actors' various cultural perspectives
		3.2 Ethical reasoning and action – History students will
		a) analyze the ethical issues embedded in historical events and processes
		b) evaluate different ethical choices present in historical decision-making
		c) evaluate the ethical assumptions of the texts they read
		4. Integrative and applied learning
		a) demonstrate connections between different courses and readings
		b) synthesize academic experiences with their experiences outside the classroom
		c) seek out applications of their historical knowledge and skills beyond the classroom

History	MA https://clas.ucdenver.edu/history/graduate	*(The revised outcomes should be approved and posted in Nov to differentiate the MA from the BA)* 1. Knowledge of human cultures a) Identify people, events, and processes significant to their courses of study b) examine similarities and differences across chronologies, geographies, and themes c) explain how past peoples understood their worlds and how those understandings shaped the ways they acted d) analyze the range of social, cultural, political, and economic possibilities available to people in particular contexts e) analyze why change occurs 2. Intellectual and practical skills 2.1 Inquiry and Analysis – History students will a) develop a creative, focused, and manageable question for historical research b) synthesize evidence representing a variety of perspectives c) explain the challenges of constructing historical narratives using incomplete and contradictory evidence d) formulate a thesis and conclusion substantiated by primary and secondary source analysis e) critique alternative conclusions 2.2 Critical Thinking – History students will a) identify and analyze the central issues, arguments, and points of view in primary and secondary sources b) evaluate authors' arguments and assess their evidence and conclusions c) critique their own and others' assumptions and the contexts in which they develop those assumptions d) use the concept of historiography, in order to compare and contrast a variety of scholarly texts e) analyze the ways the histories historians write are products of particular historical contexts 2.3 Written Communication – History students will a) establish the context, audience, and purpose of their written assignments

		b) master the conventions of historical writing, including: clear paper organization (thesis, evidence, conclusion); logical paragraph organization; clear, direct, and engaging language; proper citation methods, using Chicago style
		c) compose papers employing narrative, descriptive, and analytical writing to convey their historical knowledge and analytical skills
		2.4 Information literacy – History students will
		a) determine the types of sources that are relevant to a research question
		b) locate and evaluate appropriate materials for historical research, using book catalogs (Skyline, Prospector, WorldCat), article databases (particularly America: History and Life, Historical Abstracts, and JSTOR), and interlibrary loan
		c) demonstrate understanding of the ethical and legal issues surrounding the use of published and unpublished materials, including what constitutes plagiarism and how to cite sources
		3. Personal and social responsibility
		3.1 Intercultural knowledge and competence – History students will
		a) evaluate how their cultural biases inform their understandings of history
		b) evaluate the ways that historians of different cultural perspectives produce different histories
		c) interpret historical evidence with consideration to historical actors' various cultural perspectives
		3.2 Ethical reasoning and action – History students will
		a) analyze the ethical issues embedded in historical events and processes
		b) evaluate different ethical choices present in historical decision-making
		c) evaluate the ethical assumptions of the texts they read
		4. Integrative and applied learning
		a) demonstrate connections between different courses and readings
		b) synthesize academic experiences with their experiences outside the classroom
		c) seek out applications of their historical knowledge and skills beyond the classroom

Humanities	MH https://clas.ucdenver.edu/mhmss/mhmss-degree-information	When students complete either the MH or MSS degree we want them to have the ability to demonstrate the "capacity to integrate knowledge and modes of thinking drawn from two or more disciplines to produce a cognitive advancement...in ways that would have been unlikely through single disciplinary means. Fundamentally we want students to demonstrate foundational knowledge of critical theories and concepts within the Humanities or Social Sciences depending on degree sought. Student proficiency in either the Humanities or Social Science is demonstrated through writing with the following benchmarks in mind: 1. "Interdisciplinary grounding" - student selects appropriate disciplines to solve unique problems; concepts are used in accurate but nuanced ways befitting of multiple perspectives 2. "Integrative leverage" - student calls attention to a novel concept or problem, interpretation or relationship 3. "Critical stance" - student identifies the significance of the integrated stance and ways to reconcile diverse or conflicting views that emerge from interdisciplinary thinking. 4. To critically analyze and synthesize information from different literatures and disciplines 5. To demonstrate relevant information pertaining to particular areas of focus 6. To write effective, grammatically correct, well-organized, scholarly papers 7. To demonstrate the ability to read critically a range of scholarly literature in a range of disciplines 8. To demonstrate skills to apply knowledge to particular field of work

Individually Structured Major	BA https://clas.ucdenver.edu/academic-programs/integrated-studies-major	1. Disciplinary Knowledge – Integrated Studies students will: a) Understand and explain the functions and limitations of academic disciplines b) Examine similarities and differences across disciplinary frameworks and methods c) Recognize disciplinary insights and perspectives relevant to their program of study 2. Inquiry and Analysis – Integrated Studies students will: a) Develop research questions that can require thinking beyond a single discipline b) Identify multiple disciplinary frameworks relevant to achieving specific research goals c) Locate scholarly works that address interdisciplinary research questions 3. Critical Thinking – Integrated Studies students will: a) Evaluate a variety of source materials and differing disciplinary viewpoints b) Critique disciplinary assumptions and explain the contexts in those assumptions are developed 4. Written Communication – Integrated Studies students will: a) Communicate ideas effectively in writing b) Compose papers employing analytical writing to convey their disciplinary knowledge and skills 5. Information literacy – Integrated Studies students will: a) Locate and evaluate appropriate materials for interdisciplinary research, using book catalogs and article databases b) Demonstrate understanding of the ethical and legal issues surrounding the use of published and unpublished materials, including what constitutes plagiarism and how to cite sources 6. Ethical reasoning and action – Integrated Studies students will: a) Examine the ethical approaches to studying problems through a variety of perspectives b) Analyze the ways interdisciplinary critical thinking can be applied to social problems 7. Integrative and applied learning – Integrated Studies students will: a) Synthesize evidence representing multiple disciplinary perspectives b) Combine the theories, methods, and analytical perspectives of a variety of disciplines to answer an interdisciplinary question c) Explain how to approach a real-world problem in an interdisciplinary manner

		d) Understand and articulate the benefits of interdisciplinary study to the larger world
Integrated Sciences	MIS https://clas.ucdenver.edu/mis/degree-information/learning-goals-and-objectives	Outcome 1: Understand the scientific method and the role of ethics in scientific endeavors Outcome 2: Critically analyze a range of scientific literature that utilizes interdisciplinary techniques and methods Outcome 3: Attain foundational content knowledge in two (possibly three) STEM disciplines appropriate to the individual student's program goals Outcome 4: Develop an individualized research question that embodies integration of the content knowledge from these disciplines

		Outcome 5: Design, plan, and execute a research project or thesis that answers this question Outcome 6: Present and defend the results of their work in written and oral form
Integrative and Systems Biology	PhD https://clas.ucdenver.edu/integrative-biology/academics/graduate-programs	*(The revised outcomes will be posted in October to differentiate the PhD from the MS)* 1. Specialized knowledge and skills within sub-discipline: Students must: a) demonstrate specialized knowledge of content and methodology within their chosen subfield; and, b) demonstrate an ability to acquire new knowledge and skills as the field changes. 2. Apply the process of science through inquiry and analysis: Students must: a) characterize the state of the field and identify critical gaps in knowledge or ability; b) identify a testable/doable question(s) that could contribute the gaps in the state of the field; c) evaluate reliability of sources of information and evidence; d) locate, summarize and explain how a study contributes to the field; e) develop and critique scientific hypotheses; f) design and conduct observational and experimental studies with attention to replication and statistical design constraints; g) analyze and interpret data to form conclusions; h) articulate variables and assumptions required by a study; and, i) place scientific findings into a larger intellectual/contextual framework. 3. Use abstract/quantitative reasoning: Students must:

		a) manage and organize data sets; b) create and interpret data visualizations (e.g. graphs, tables); c) apply descriptive and inferential statistical methods of design and analysis for diverse study questions; d) use data as evidence to draw conclusions about biological processes; e) use mathematical formulas to reason about biological processes and understand the underlying probability in the calculations; f) describe the assumptions used to make a model and evaluate alternate models; g) explain the effects of probability and uncertainty in biological models; h) interpret models given changing variables¬¬; i) create a conceptual model to represent related components and processes of biological systems; j) create a quantitative model to represent related components and processes of biological systems; and, k) interpret quantitative and conceptual models. 4. Communicate and collaborate: Students must: a) Participate in the dialogue in your discipline using the appropriate formats; b) demonstrate an understanding of context, audience, and purpose in writing and other communications; c) use appropriate conventions of organization, content, formatting, presentation, and style in writing and other communications; d) correctly cite high-quality, relevant sources to support arguments; and, e) communicate scientific understanding to both scientific and general audiences. 5. Context of Science Students must: a) Explain the implications of their research for society; b) Explain relationships between biological principles and global, economic, environmental and societal issues; c) Describe how the history of scientific thought has shaped the

		development of scientific principles; d) Understand the philosophy of science.
International Studies	BA https://clas.ucdenver.edu/ints/international-studies-learning-outcomes	1. Global Analysis – Analyze the relationships and interdependencies among geographical areas, institutions, and actors. 2. Interdisciplinary Approaches – Apply theoretical and methodological tools from multiple disciplines to analyze issues and debates of international significance. 3. Influential Trends – Assess the influence of past and/or contemporary trends on global developments. 4. Critical Thinking – Evaluate assumptions and evidence in order to formulate and deconstruct arguments.

| Mathematics | BS

https://clas.ucdenver.edu/mathematical-and-statistical-sciences/undergraduate-goals-and-objectives | 1. Knowledge Areas. Students must acquire both a conceptual and operational understanding of the following core areas of the undergraduate program:
a) Differential and integral calculus in one and several variables
b) Abstract mathematics as represented by basic logic, set theory and methods of proof
c) Linear algebra
d) One area of specialization (e.g., differential equations, discrete mathematics, statistics, optimization)
e) One area of breadth outside of specialty (e.g., graph theory, probability, statistics, real analysis, geometry, history of mathematics, abstract algebra, computer science)

2. Skills. Students must acquire the following skills at an appropriate level:
a) Precision and clarity in the oral and written communication of mathematical ideas
b) Proficiency in the use of technology in mathematics
c) Proficiency in the formulation and construction of proofs
d) Facility in problem solving, modeling, approximation and mathematical exploration, both in groups and independently
e) Appreciation of teamwork

3. Attitudes. Through coursework and research, students are expected to cultivate the following attitudes and dispositions:
a) Confidence in one's own mathematical skills and knowledge
b) Desire for continuous and independent learning
c) Appreciation for the dynamic role of mathematics in science, society and history
d) Awareness of career opportunities in mathematics
e) Awareness of the interrelations among areas of mathematics |

Philosophy	BA https://clas.ucdenver.edu/philosophy/programs/bachelor-arts-major-philosophy	Student learning in the B.A. in Philosophy focuses on the following: 1. Recognize and comprehend the salient elements of philosophy's significant historical figures, periods, and areas. 2. Understand how philosophical frameworks and theories expand the meanings and implications of existing cultural areas (e.g., those found in science, technology, the arts, politics, medicine, social justice). More specifically, the above includes training (most typically in writing) about how to: 3. Interpret texts by careful reading and synthesis of meanings 4. Identify and criticize philosophical arguments 5. Develop original arguments supported by texts and logical reasoning 6. Outline major philosophical frameworks
Physics	BS https://clas.ucdenver.edu/physics/academics/program-learning-goals	A. Core Physics Principals and Essential Mathematical Skills: Students will be able understand fundamental laws of physics and a strong mathematical foundation to apply the laws to solve standard problems in physics. Specifically, students will be able to: 1.Use the principles of core areas of physics, including classical mechanics, electromagnetism, statistical physics, and quantum mechanics to solve standard physics problems at a level compatible with admission to graduate programs in physics. 2.Analyze and interpret qualitative results, both in the core areas of physics and in complex problems that cross multiple discipline areas. 3.Apply physical laws to solve new problems. B. Modeling and Analysis skills: Students will be able to model a problem and evaluate it. Specifically, students will be able to: 1.Apply theoretical and computational models to formulate and solve problems in areas outside of the physics core. 2.Design experiments to test new ideas. 3.Obtain and analyze data from theoretical models and experiments. 4.Evaluate the theoretical and experimental results to make sure that they are consistent with existing physical principles. C. Communication Skills: Students will be able to convey their knowledge and findings effectively and efficiently either individually or in groups to wide varieties of audiences. Specifically, students will be able to: 1.Write solution of problems systematically with appropriate

		mathematical details so that their peers can follow through the steps. 2.Write appropriate scientific reports on their research and findings. 3.Design and prepare posters and slides appropriate for academics as well as to layperson audiences.

Political Science	BA https://clas.ucdenver.edu/polisci/undergraduate	1. Knowledge of the role of political action and political systems in shaping human cultures and socio-economic patterns, including: a) Knowledge of the American Political System b) Knowledge of political systems across history and world region c) Knowledge of theoretical foundations of political systems and political values d) Ability to compare political systems in their differing abilities to deliver public welfare e) Knowledge of the processes, institutions and actors involved in globalization 2. Intellectual and Practical Skills, including: a) Inquiry and analysis b) Critical thinking c) Creative thinking d) Written communication • Oral communication e) Reading Ability f) Quantitative literacy • Information literacy • Teamwork g) Problem solving 3. Personal and Social Responsibility, including a) Civic knowledge and engagement—local and global • Intercultural knowledge and competence b) Ethical reasoning and action c) Foundations and skills for lifelong learning 4. Integrative/Holistic and Applied Learning, including: a) Completion of department course work across a range of political science subfields b) Application of insights from other programs of study to enhance their political understanding and practical skills
Political Science	MA https://clas.ucdenver.edu/polisci/graduate	1. Graduate students will demonstrate understanding of the major theories and methodological approaches used to explain political outcomes within the discipline of political science. 2. Graduate students will demonstrate an ability to evaluate, compare, and synthesize different theoretical and methodological approaches used in explaining political outcomes in their chosen sub-discipline of political science. Graduate students in final stages of their graduate studies will demonstrate an ability to select or design an appropriate theoretical or methodological approach to develop original knowledge about a significant political question in their area of scholarly specialization. 3. Graduate students will successfully conduct and communicate

		original research and/or theoretical exploration that investigates political phenomena in their area of concentration, using appropriate theoretical and methodological approaches.
Psychology	BA

https://clas.ucdenver.edu/psychology/learning-goals | 1. Describe and apply the social-ecological perspective to health and diseases; that is, understand health as the outcome of processes that occur on many levels, ranging from the social and cultural context to cellular and intracellular processes.
2. Integrate multiple disciplines and research traditions to identify and explain the social, behavioral, and biological determinants of health, wellness, and disease in human communities and populations;
3. Understand apply the core principles of health promotion/disease prevention to specific health problems in the community
4. Describe the basic elements of the health policy processes and identify and describe the major institutional players in health policy, both domestically and internationally;
5. Analyze how health needs, perceptions of health needs, and the organizational and social structures through which health services are delivered and received vary cross-culturally;
6. Articulate the basic structure, organization, and financing principles of contemporary health care systems;
7. Use the statistical, imaging, and qualitative research skills necessary for problem-solving and critical thinking in the areas of epidemiology, health care, planning, and community health needs assessment;
8. Explain health disparities across socioeconomic status and race/ethnicity using an interdisciplinary perspective |

| Psychology | BS

https://clas.ucdenver.edu/psychology/learning-goals | 1. Describe and apply the social-ecological perspective to health and diseases; that is, understand health as the outcome of processes that occur on many levels, ranging from the social and cultural context to cellular and intracellular processes.
2. Integrate multiple disciplines and research traditions to identify and explain the social, behavioral, and biological determinants of health, wellness, and disease in human communities and populations;
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4. Describe the basic elements of the health policy processes and identify and describe the major institutional players in health policy, both domestically and internationally;
5. Analyze how health needs, perceptions of health needs, and the organizational and social structures through which health services are delivered and received vary cross-culturally;
6. Articulate the basic structure, organization, and financing principles of contemporary health care systems;
7. Use the statistical, imaging, and qualitative research skills necessary for problem-solving and critical thinking in the areas of epidemiology, health care, planning, and community health needs assessment;
8. Explain health disparities across socioeconomic status and race/ethnicity using an interdisciplinary perspective; and
9. Students who select the BS degree will demonstrate a working knowledge of Biology, Chemistry, Physics, and Mathematics suitable for students who wish to pursue advanced training in medicine and/or the laboratory sciences. |

Public Health	BA https://clas.ucdenver.edu/hbsc/degree-programs/bachelor-arts-or-science-public-health	1. Describe and apply the social-ecological perspective to health and diseases; that is, understand health as the outcome of processes that occur on many levels, ranging from the social and cultural context to cellular and intracellular processes. 2. Integrate multiple disciplines and research traditions to identify and explain the social, behavioral, and biological determinants of health, wellness, and disease in human communities and populations; 3. Understand apply the core principles of health promotion/disease prevention to specific health problems in the community 4. Describe the basic elements of the health policy processes and identify and describe the major institutional players in health policy, both domestically and internationally; 5. Analyze how health needs, perceptions of health needs, and the organizational and social structures through which health services are delivered and received vary cross-culturally; 6. Articulate the basic structure, organization, and financing principles of contemporary health care systems; 7. Use the statistical, imaging, and qualitative research skills necessary for problem-solving and critical thinking in the areas of epidemiology, health care, planning, and community health needs assessment; 8. Explain health disparities across socioeconomic status and race/ethnicity using an interdisciplinary perspective
Public Health	BS https://clas.ucdenver.edu/hbsc/degree-programs/bachelor-arts-or-science-public-health	1. Describe and apply the social-ecological perspective to health and diseases; that is, understand health as the outcome of processes that occur on many levels, ranging from the social and cultural context to cellular and intracellular processes. 2. Integrate multiple disciplines and research traditions to identify and explain the social, behavioral, and biological determinants of health, wellness, and disease in human communities and populations; 3. Understand apply the core principles of health promotion/disease prevention to specific health problems in the community 4. Describe the basic elements of the health policy processes and identify and describe the major institutional players in health policy, both domestically and internationally; 5. Analyze how health needs, perceptions of health needs, and the organizational and social structures through which health services are delivered and received vary cross-culturally; 6. Articulate the basic structure, organization, and financing principles of contemporary health care systems; 7. Use the statistical, imaging, and qualitative research skills necessary

		for problem-solving and critical thinking in the areas of epidemiology, health care, planning, and community health needs assessment; 8. Explain health disparities across socioeconomic status and race/ethnicity using an interdisciplinary perspective; and *9. Students who select the BS degree will demonstrate a working knowledge of Biology, Chemistry, Physics, and Mathematics suitable for students who wish to pursue advanced training in medicine and/or the laboratory sciences.*
Social Sciences	MSS https://clas.ucdenver.edu/mhmss/mhmss-degree-information	When students complete either the MH or MSS degree we want them to have the ability to demonstrate the "capacity to integrate knowledge and modes of thinking drawn from two or more disciplines to produce a cognitive advancement…in ways that would have been unlikely through single disciplinary means." Fundamentally we want students to demonstrate foundational knowledge of critical theories and concepts within the Humanities or Social Sciences depending on degree sought. Student proficiency in either the Humanities or Social Science is demonstrated through writing with the following benchmarks in mind: 1. "Interdisciplinary grounding" - student selects appropriate disciplines to solve unique problems; concepts are used in accurate but nuanced ways befitting of multiple perspectives 2. "Integrative leverage" - student calls attention to a novel concept or problem, interpretation or relationship 3. "Critical stance" - student identifies the significance of the integrated stance and ways to reconcile diverse or conflicting views that emerge from interdisciplinary thinking. 4. To critically analyze and synthesize information from different literatures and disciplines 5. To demonstrate relevant information pertaining to particular areas

		of focus 6. To write effective, grammatically correct, well-organized, scholarly papers 7. To demonstrate the ability to read critically a range of scholarly literature in a range of disciplines 8. To demonstrate skills to apply knowledge to particular field of work

Sociology	BA https://clas.ucdenver.edu/sociology/sociology-ba-learning-outcomes	1. Demonstrate an understanding of sociological concepts and theories, such that they will be able to: a) Define and apply basic concepts of sociology b) Explain the role of theory in sociological inquiry and analysis c) Distinguish between major theoretical positions 2. Demonstrate an understanding of the role of research methods in sociology, such that they will be able to: a) Articulate the role of research in building sociological knowledge b) Demonstrate competence with quantitative and qualitative approaches to formulating research questions, and gathering and analyzing data. c) Critically analyze and evaluate empirical and non-empirical claims about the social world 3. Demonstrate an understanding of intercultural knowledge and human diversity of social experience, such that they will be able to: a) Describe aspects and intersections of diversity including ethnic and racial heritage, socioeconomic class, gender expression, sexualities, physical capabilities, age, citizenship, and belief systems b) Understand and contextualize different points of view c) Explain the value of cultural and intellectual diversity 4. Demonstrate critical thinking skills in assessing social issues, such that they will be able to: a) Identify underlying assumptions of various arguments, methodologies, and theories b) Critically examine their own cultural practices, values, beliefs and social positions c) Assess the social factors that create and perpetuate inequality in the United States and globally 5. Locate, create and communicate sociological information, such that they will be able to: a) Use technical skills to retrieve sociological literature and conduct basic data analyses b) Read and understand professional-level sociological reports c) Effectively convey sociological information and findings in writing and oral presentation d) Use sociological theory, concepts and evidence to communicate

		about social phenomena 6. Think sociologically about the communities in which they live and work, such that they will be able to: a) Apply a sociological perspective to social issues and current events b) Demonstrate how social research can be used to evaluate the effectiveness of social policies and programs and affect change c) Articulate how individual action can reduce social problems and promote social justice
Sociology	MA https://clas.ucdenver.edu/sociology/sociology-ma-learning-outcomes	1. Demonstrate an understanding of how professional sociology is practiced in academia and in the community. 2. Recognize and explain the role of research methods in sociology 3. Describe and apply basic quantitative analysis in sociological research 4. Describe and apply basic qualitative analysis in sociological research 5. Explain and compare core sociological concepts and theories 6. Prepare a comprehensive paper demonstrating critical thinking skills, methodological rigor, and deep theoretical understanding

		7. Apply sociological theory and research to describe and interpret social problems in our community and beyond
Spanish	BA https://clas.ucdenver.edu/modLang/spanish-program/spanish-major-language-literature-and-culture-track	1. Students should master the basic terms and skills needed to analyze both the themes and forms of literary works. 2. Students should master at least one genre or period of Spanish Literature and of Spanish-American Literature. 3. Students should gain an understanding of Spanish phonetics, including the classification of sounds and how they are affected and change according to their phonetic environment and region. 4. Students should gain the linguistic proficiency to speak and understand Spanish, including the ability to engage in intellectual discussion in academic settings using correct pronunciation, grammar, and vocabulary. 5. Students should master the ability to write modern Spanish with sufficient fluency and accuracy to produce a coherent analytical essay
Spanish	MA https://clas.ucdenver.edu/modLang/spanish-program/master-arts-spanish	1. To understand the intricacies of the Spanish language and its history 2. To develop a working knowledge of some of the most important works created in Spanish, in disciplines including literature, film, linguistics and cultural history 3. To develop the linguistic proficiency in Spanish to engage in intellectual discussion in both academic and non-academic settings using standard pronunciation, grammar and vocabulary 4. To think, speak and write analytically and critically about culture.

| Statistics | MS

https://clas.ucdenver.edu/mathematical-and-statistical-sciences/graduate-program-goals-and-objectives | 1. Students must acquire both a conceptual and operational understanding of the following core areas of mathematics:
a) Applied analysis
b) Applied linear algebra

2. Students must acquire both a conceptual and operational understanding of at least one of the following emphasis areas of mathematics:
a) Discrete mathematics (graph theory and/or finite geometry)
b) Numerical and computational mathematics
c) Optimization
d) Probability and/or statistics
e) Mathematics of science and engineering
f) Computer science
g) Computational biology

3. Students will become proficient in the following skills and attitudes:
a) Precision and clarity in the oral and written communication of mathematical ideas
b) Effective use of non-classroom resources to gain knowledge
c) Proficiency in the formulation and construction of proofs
d) Facility in problem solving, modeling, approximation, and mathematical exploration
e) Effectiveness in reasoning with and between concrete and abstract ideas
f) Capable of using computer technologies |

School of Education and Human Development		
Program	**Degree**	**Outcomes**
Counseling	MA https://education.ucdenver.edu/academics/graduate/counseling/student-learning-outcomes	1. Students will demonstrate clinical competency in working in diverse settings and with diverse client populations. 2. Students will successfully pass the multicultural curriculum. 3. Students will demonstrate their knowledge of a systemic framework in a case application paper. 4. Students will apply a systemic framework in their clinical practice. 5. Students will develop a research proposal. 6. Students will learn to critically analyze common assessments in the field. 7. Students will show a commitment to professional ethical behavior in their clinical practice.
Couple and Family Therapy	MA https://education.ucdenver.edu/academics/graduate/counseling/detail/Couple-and-Family-Therapy-MA	1. Students will demonstrate clinical competency in working in diverse settings and with diverse client populations. 2. Students will successfully pass the multicultural curriculum 3. Students will demonstrate their knowledge of a systemic framework in a case application paper 4. Students will apply a systemic framework in their clinical practice 5. Students will develop a research proposal 6. Students will learn to critically analyze common assessments in the field 7. Students will show a commitment to professional ethical behavior in their clinical practice

| Culturally and Linguistically Diverse Education | MA

https://education.ucdenver.edu/academics/graduate/culturally-linguistically-diverse-education/student-learning-outcomes | 1. Knowledge About Language. Candidates demonstrate knowledge of English language structures, English language use, second language acquisition and development, and language processes to help bilingual students acquire academic language and literacies specific to various content areas.
2. Sociocultural Context for Bilingual Students. Candidates demonstrate and apply knowledge of the impact of dynamic academic, personal, familial, cultural, social, and sociopolitical contexts on the education and language acquisition of bilingual students as supported by research and theories. Candidates investigate the academic and personal characteristics of each bilingual student, as well as family circumstances and literacy practices, to develop individualized, effective instructional and assessment practices for their bilingual students. Candidates recognize how educator identity, role, culture, and biases impact the interpretation of bilingual students' strengths and needs
3. Planning and Implementing Instruction. Candidates plan supportive environments for bilingual students, design and implement standards-based instruction using evidence-based, bilingual-centered, interactive approaches. Candidates make instructional decisions by reflecting on individual language outcomes and adjusting instruction. Candidates demonstrate understanding of the role of collaboration with colleagues and communication with families to support their bilingual students' acquisition of English language and literacies in the content areas. Candidates use and adapt relevant resources, including appropriate technology, to effectively plan, develop, implement, and communicate about instruction for bilingual students.
4. Assessment and Evaluation. Candidates apply assessment principles to analyze and interpret multiple and varied assessments for bilingual students, including classroom-based, standardized, and language proficiency assessments. Candidates |

		understand how to analyze and interpret data to make informed decisions that promote English language and content learning. Candidates understand the importance of communicating results to other educators, bilingual students, and bilingual students' families. 5. Professionalism and Leadership. Candidates demonstrate professionalism and leadership by collaborating with other educators, knowing policies and legislation and the rights of bilingual students, advocating for bilingual students and their families, engaging in self-assessment and reflection, and pursuing continuous professional development.
Curriculum and Instruction, Critical Pedagogy (CIPP)	MA https://education.ucdenver.edu/continuing-education/aspire/program-details/MA-option/student-learning-outcomes	1. Demonstrate critical stance through inquiry and analysis of past and current educational practices and policies. 2. Demonstrate teaching practices that are equity-oriented and anti-oppressive in nature. 3. Demonstrate understanding of the larger systemic context within which students, communities, and schools operate. 4. Describe strategies to disrupt "common sense" notions of schooling to reveal implicit biases and assumptions. 5. Demonstrate the competencies necessary for examining professional practice using formal and informal methods of inquiry.

| Early Childhood Education | MA

https://education.ucdenver.edu/academics/graduate/early-childhood-education/student-learning-outcomes | 1. Demonstrate an understanding of the interdependent relationship between sociocultural and biological aspects of child growth and development as well as individual developmental and learning differences between and among young children with and without disabilities. (NAEYC Advanced Standard 1; DEC Advanced Standard 3)
2. Design and implement culturally, linguistically, developmentally appropriate curricula and create inclusive learning environments for young children. They implement a variety of evidence-based, culturally sustaining practices to individualize learning opportunities for children with diverse identities and sociocultural contexts. (NAEYC Advanced Standard 5; DEC Advanced Standard 2)
3. Observe and document child development and learning of individual children within their families' sociocultural context. Early childhood professionals select relevant tools and processes, including formal and informal assessments of development, learning, environments, and programs. (NAEYC Advanced Standard 3; DEC Advanced Standard 1)
4. Know, use, and advocate for ethical guidelines and professional standards related to interactions with young children, families and other professionals within early childhood contexts. (NAEYC Advanced Standard 6; DEC Advanced Standard 5)
5. Examine and plan their leadership and advocacy toward equitable, diverse and inclusive early childhood environments. They critically analyze theories, policies, research and practices to promote all children's development, learning and well-being. (NAEYC Advanced Standard 6; DEC Advanced Standard 5)
6. Appreciate and value the diverse assets of children's sociocultural contexts including families and communities. They demonstrate respectful, responsive, and reciprocal relationships that inspire belonging among children, families and professionals. |

| Education and Human Development (EDHD) | BA

https://education.ucdenver.edu/academics/undergraduate/student-learning-outcomes#BA-EDHD | 1. Demonstrate mastery of content and pedagogical expertise in the content they teach.
2. The elementary teacher is an expert in literacy and mathematics and is knowledgeable in all other content that he or she teaches.
3. The secondary teacher has knowledge of literacy and mathematics and is an expert in his or her content endorsement area(s).
4. Establish a safe, inclusive, and respectful learning environment for a diverse population of students.
5. Plan and deliver effective instruction and create an environment that facilitates learning for their students.
6. Demonstrate high standards for professional conduct.
7. Partner, collaborate & engage with families and communities to develop relationships, build networks of support for student success, and leverage family & community-based knowledge to make instruction and assessment relevant to the lives of students.
8. Actively advocate for students, families, & schools to support equity & social justice. |
| Education and Human Development | PhD

https://education.ucdenver.edu/academics/doctoral/student-learning-outcomes | 1. Apply theories of learning and development to understand fundamental questions involving education, communities, and/or families.
2. Identify and analyze an issue related to equity.
3. Apply a critical lens to interrogate existing research and theoretical perspectives.
4. Critically apply theories, methods, and knowledge to address questions in their primary field.
5. Demonstrate skills and knowledge at a level required for college and university teaching
6. Plan and conduct research of significance
7. Demonstrate skills in oral and written communication sufficient to publish and present work in their field or prepare grant proposals |

Human Development and Family Relations	BS https://education.ucdenver.edu/academics/undergraduate/student-learning-outcomes#BS-HDFR	1. Demonstrate a deep understanding of family relations across the life span based on family systems and ecological systems theories. 2. Apply learned knowledge and experiences towards "best practices" in serving linguistically and culturally diverse individuals, families, schools and communities. 3. Demonstrate the importance of professional development and ethics when serving in the community. 4. Demonstrate and recognize the importance of inclusion and diversity in familial, school and community environments. 5. Demonstrate and interpret an understanding of the importance of policy and how it impacts the intersections between individuals, families, schools and communities.
Leadership for Educational Equity	EdD https://education.ucdenver.edu/academics/doctoral/student-learning-outcomes	1. Analyze and critically evaluate educational theories, policies, research and practices intended to improve equity and social justice. 2. Collaborate with others to set direction, design and enact improvements as a leader in education, work or community settings. 3. Apply principles of individual and organizational learning to effect positive change. 4. Design and conduct research and inquiry to improve practice and promote equity. 5. Communicate effectively to scholarly and practitioner audiences
Leadership for Educational Organizations	Ed.S https://education.ucdenver.edu/academics/graduate/leadership-for-educational-organizations/student-learning-outcomes	1.Demonstrate organizational leadership by strategically developing a vision and mission, leading change, enhancing the capacity of personnel, distributing resources, and aligning systems of communication for continuous school improvement. 2.Demonstrate inclusive leadership practices that foster a positive school culture and promote safety and equity for all students, staff, and community. 3.Demonstrate instructional leadership by aligning curriculum, instruction and assessment, supporting professional learning, conducting observations, providing actionable feedback, and holding staff

		accountable for student outcomes. 4.Demonstrate professionalism through ethical conduct, reflection, and external leadership
Leadership for Educational Organizations	MA https://education.ucdenver.edu/academics/graduate/leadership-for-educational-organizations/student-learning-outcomes	1. Demonstrate organizational leadership by strategically developing a vision and mission, leading change, enhancing the capacity of personnel, distributing resources, and aligning systems of communication for continuous school improvement. 2. Demonstrate inclusive leadership practices that foster a positive school culture and promote safety and equity for all students, staff, and community. 3. Demonstrate instructional leadership by aligning curriculum, instruction and assessment, supporting professional learning, conducting observations, providing actionable feedback, and holding staff accountable for student outcomes. 4. Demonstrate professionalism through ethical conduct, reflection, and external leadership.
Learning, Design, & Technology	MA https://education.ucdenver.edu/academics/graduate/learning-design-technology/student-learning-outcomes	1. Reflective practice. Adopt a critical stance toward your work, promoting effective practice and responsible use of technology. 2. Become competent and confident in the use of various tools and technologies, related to learning, communication, and making things. 3. Learning and instruction. Become competent and confident in the use of various tools and technologies, related to learning, communication, and making things. 4. Creative and social media. Demonstrate proficiency with tools, platforms, and environments in the creation of media resources for learning and knowledge construction. 5. Inquiry and change. Engage in systematic processes of inquiry and change. 6. Professional learning and leadership. Demonstrate a

		commitment to lifelong learning and leadership within the profession.
Learning, Development & Family Science	MA https://education.ucdenver.edu/academics/graduate/learning-developmental-family-sciences/student-learning-outcomes	1. Construct their own perspectives of how diverse people learn and develop in various educational and community contexts, through integrating and critiquing various perspectives of learning and development (a program-level outcome). 2. Design various formal and informal educational contexts that facilitate adaptive learning and development across diverse populations, particularly in our unique urban context. 3. Demonstrate perspectives and practices towards a social justice in their academic and professional communities, with implications for policy and practice. 4. Promote mutually informative relationships between academic and professional communities. 5. Review the existing literature and conduct research with a practical orientation on how people learn and develop in various educational and community contexts, to address interdisciplinary questions at the nexus of research and practice (a program-level outcome).

Literacy Education	MA https://education.ucdenver.edu/academics/graduate/literacy-education/student-learning-outcomes	1. Understand the field as an evolving and changing discipline based on knowledge of psychological, sociological, and linguistic foundations of reading and writing processes and instruction including the cognitive processes employed in skillful reading and writing; knowledge of language development and reading acquisition and variations related to cultural and linguistic diversity; as well as diverse and historical perspectives and human issues that have influenced the field of literacy development in reading, writing, speaking, viewing, and listening. 2. Possess a repertoire of evidence-based instructional strategies including technology-based practices for learners at differing stages of development and from differing cultural and linguistic backgrounds; moreover they analyze the critical elements of a comprehensive literacy curriculum that adhere to research-based principles of instruction and use a wide range of curriculum materials in effective reading instruction for learners at different stages of reading and writing development. 3. Use a wide range of assessment tools and practices that range from individual and group standardized tests to individual and group informal classroom assessment strategies, including technology-based assessment tools. Using assessment information, they place students along a developmental continuum and plan, evaluate and revise effective instruction to meet the needs of all students including those at varying stages of development and those from different cultural and linguistic backgrounds; and communicate the results of assessments to other educators, administrators, parents, policy makers. 4. Create learning environments using and reflecting students' interests, reading abilities, and backgrounds as well as a large supply of books, technology-based information, print and non-print materials representing multiple levels, broad interests, and cultural and linguistic backgrounds to model reading and writing and to motivate learners to be lifelong

		readers and writers. 5. Develop and display positive dispositions related to reading, writing, and the teaching of reading and writing by working with colleagues to observe, evaluate, and provide feedback on each other's practice and instruction. They model, advise, and become involved in professional organizations to strengthen the professional attitudes needed by reading teachers, reading specialists and English language arts teachers.
Mathematics Education	MS.Ed https://education.ucdenver.edu/academics/graduate/stem-education/student-learning-outcomes	1. Understand, develop, and integrate Nature of Science and mathematical ideas with understanding of students' development into one's instructional and curricular work. 2. Understand, develop, and critique ways in which curricular and instructional approaches are institutionalized in school settings to make mathematics and science accessible to each and every student.

Research Evaluation Methods	MA https://education.ucdenver.edu/academics/graduate/research-evaluation-methods/student-learning-outcomes	1. Explain similarities and differences among various research paradigms, act as an informed consumer of research, and design and conduct a small-scale social science study. 2. Explain basic measurement principles, critique measures in light of various measurement concepts such as validity and reliability, and create a sound measure on an important topic in education and counseling. 3. Explain basic statistical concepts and techniques, identify and perform appropriate analyses based on their research question(s), and interpret the results of statistical analyses. 4. Explain the essential elements of conceptual frameworks for both program evaluation and the evaluation of persons (typically teachers), and operationalize the elements by designing and/or conducting evaluation studies
School Psychology	PsyD https://education.ucdenver.edu/academics/doctoral/student-learning-outcomes	1. Graduates attain a broad foundation in the theoretical and conceptual tenets of psychology. 2. Graduates demonstrate knowledge and skills in comprehensive assessment for the purpose of for identifying strengths and needs, developing effective services and program, and measuring progress and outcomes. 3. Graduates demonstrate knowledge and skills implementing collaborative systemic and consultative interventions in school psychology to enhance the academic skills and mental health of students. 4. Graduates attain the knowledge and skills to implement evidence-based interventions, mental health services, and instructional supports. 5. Graduates will be competent in in the conduct, comprehension, and application of research to professional practice. 6. Graduates will be prepared to engage in culturally responsive, legal, ethical, and professional practice.

Special Education	MA https://education.ucdenver.edu/academics/graduate/special-education/student-learning-outcomes	1. Leadership: Knowledge of the field in order to become an advocate & leader in the field (or potential to be a leader) Collaborate with others to set direction, design and enact improvements as a leader in education, work or community settings. 2. Instruction/Assessment: Knowledgeable of instruction/assessment/and implementation of practice. Multiple perspectives include the social, cultural, linguistic contexts of their students to plan for identification, interventions and implementation, evaluation and differentiation. 3. Collaboration: Knowledge of how to collaborate and consult with the community, school professionals and families
STEM (Science Technology Engineering and Mathematics for Education) Education	MA https://education.ucdenver.edu/academics/graduate/stem-education/student-learning-outcomes	1. Understand, develop, and integrate Nature of Science and mathematical ideas with understanding of students' development into one's instructional and curricular work. 2. Understand, develop, and critique ways in which curricular and instructional approaches are institutionalized in school settings to make mathematics and science accessible to each and every student
Teaching	MA https://education.ucdenver.edu/academics/graduate/teaching/student-learning-outcomes	1. Demonstrate mastery of content and pedagogical expertise in the content they teach. a) The elementary teacher is an expert in literacy and mathematics and is knowledgeable in all other content that he or she teaches. b) The secondary teacher has knowledge of literacy and mathematics and is an expert in his or her content endorsement area(s). 2. Establish a safe, inclusive, and respectful learning environment for a diverse population of students. 3. Plan and deliver effective instruction and create an environment that facilitates learning for their students. 4. Demonstrate high standards for professional conduct. 5. Partner, collaborate & engage with families and communities to develop relationships, build networks

		of support for student success, and leverage family & community-based knowledge to make instruction and assessment relevant to the lives of students.
		6. Actively advocate for students, families, & schools to support equity & social justice.
		7. Engaging professional learning for continuous improvement.
		8 Accessing and using research to improve practice and student learning.

School of Public Affairs		
Program	**Degree**	**Outcomes**
Criminal Justice	BA https://publicaffairs.ucdenver.edu/programs/criminal-justice-programs/bachelor-of-arts-in-criminal-justice	1. Substantive Knowledge: Students will develop a broad-based understanding of the nature, causes, and consequences of crime and victimization, and the societal institutions designed to deal with issues of crime and justice. Students will become familiar with current policies and practices related to the most pressing issues impacting individuals, families and communities affected by crime. Students will develop an understanding of how historical, cultural and structural forces influence the causes of crime/victimization and the responses of the criminal justice system. 2. Research Skills: Students will develop facility with methodological and analytic techniques, both quantitative and qualitative, to systematically study problems of crime and justice. Students will be competent consumers of research and also be able to design and conduct basic empirical research studies. 3. Critical Thinking: Students will develop the essential ability to make informed judgments and make significant contributions to solutions to today's most pressing justice related issues through critical consideration of a large and diverse body of knowledge. They will develop the ability to gather relevant information and weigh alternative explanations 4. Effective Communication: Students will learn to write for both professional and academic audiences and will understand how to craft effective literature reviews and research summaries. Students will develop public speaking skills in order to become comfortable presenting their work in public forums. They will also learn to work in a team environment with classmates, as well as organizations external to the school to develop effective cooperative communications skills essential to success in almost every organization. Students will learn to effectively communicate with diverse populations, including different: races, classes, genders, sexual orientations, developmental capabilities and religious perspectives 5. Diversity and Cultural Literacy: Students will learn to critically appreciate their own cultural and personal histories, as well as the values and traditions of others, and seek to evaluate a range of points of view in understanding the causes and consequences of crime and the criminal justice system. Students will demonstrate a competency to evaluate and appreciate a range of perspectives in both oral and written communication, and carry this appreciation into their professional practice within the field of criminal justice

Criminal Justice	MCJ https://publicaffairs.ucdenver.edu/programs/criminal-justice-programs/master-of-criminal-justice	1. Substantive Knowledge: Students will master a broad-based understanding of the nature, causes, and consequences of crime and victimization, and the societal institutions designed to deal with issues of crime and justice. Students will be able to analyze current policies and practices related to the most pressing issues impacting individuals, families and communities affected by crime. Students will master an understanding of how historical, cultural and structural forces influence the causes of crime/victimization and the responses of the criminal justice system. 2. Research Skills: Students will master methodological and analytic techniques, both quantitative and qualitative, to systematically study problems of crime and justice. Students will be critical consumers of research and also be able to design and conduct basic empirical research studies. 3. Critical Thinking: Students will master the essential ability to make informed judgments and make significant contributions to solutions to today's most pressing justice related issues through critical consideration of a large and diverse body of knowledge. They will master the ability to gather relevant information and weigh alternative explanations 4. Effective Communication: Students will develop their writing for both professional and academic audiences and will understand how to craft effective literature reviews and research summaries. Students will master public speaking skills in order to become comfortable presenting their work in public forums. They also will enhance their skills in working in a team environment with classmates, as well as organizations external to the school to master effective cooperative communications skills essential to success in almost every organization. Students will enhance their communicate skills with diverse populations, including different: races, classes, genders, sexual orientations, developmental capabilities, and religious perspectives 5. Diversity and Cultural Literacy: Students will cultivate a critical appreciation of their own cultural and personal histories, as well as the values and traditions of others, and seek to evaluate a range of points of view in understanding the causes and consequences of crime and the criminal justice system. Students will demonstrate a mastery of evaluating and appreciating a range of perspectives in both oral and written communication and carry this appreciation into their professional practice within the field of criminal justice

Public Administration	MPA https://publicaffairs.ucdenver.edu/programs/public-affairs-programs/master-of-public-administration	1. To lead and manage in public governance: a)The student understands the roles and realities of public administration in society b)The student understands the context of public and nonprofit management and how that context differs from private sector management c)The student is able to set mission-driven goals and use data, performance indicators, economic concepts and continuous improvement approaches to manage and lead d)The student understands and is able to apply theories of management, leadership, and emotional competency to motivate people, build teams, and manage change e)The student is able to effectively allocate and manage financial and programmatic resources 2. To participate in and contribute to the public policy process: a)The student understands the process and context of policy making at all levels of democratic government b)The student understands and is able to apply tools for engaging citizens in the policy process c)The student understands and is able to apply techniques for generating and selecting among policy alternatives d)The student is able to identify common barriers to effective implementation and how to overcome them e)The student understands how policy, administrative processes, and management inter-connect 3. To analyze, synthesize, think critically, solve problems and make decisions: a)The student is able to locate and critically assess, review, and understand relevant research b)The student is able to select and use appropriate research methods and analytical tools for collecting and analyzing data c)The student is able to use data and apply ethical lenses, different perspectives and assumptions to generate decisions among alternatives d)The student understands the factors affecting the decision-making process and is able to select and use appropriate criteria and processes for making decisions 4. To articulate and apply a public service perspective: a)The student understands and adheres to the concept of the public good as the foundation for public service values and public integrity b)The student understands and adheres to policies and practices that advance government and nonprofit transparency and accountability c)The student has tools for identifying and addressing value conflicts within a pluralistic society d)The student understands and is able to apply professional codes of ethics and conduct in public and nonprofit organization 5. To communicate and interact productively with a diverse and changing workforce and citizenry: a)The student understands, values, honors and engages with workforce and citizenry with diverse

		backgrounds and viewpoints b)The student understands how privilege and bias affect decision-making in public service and has developed skills and tools to counter those biases c)The student is able to partner effectively and work in teams to accomplish goals d)The student is able to communicate effectively in writing to a variety of audiences e)The student is able to communicate effectively in a spoken format to a variety of audiences f)The student understands the value of and can effectively foster and incorporate citizen participation

Public Affairs	PhD https://publicaffairs.ucdenver.edu/programs/public-affairs-programs/phd-in-public-affairs	1. Students have extensive background knowledge and analytical skills in areas relevant to public administration, public management and public policy. -Historical and comparative foundations of public administration -Literature, concepts and theories of public management -Literature, concepts and theories of public policy -Emerging topics in public administration, management and policy -Quantitative Methods I -Conduct of empirical inquiry -Quantitative Methods II 2. Students are able to formulate and implement a high-quality research design and effectively analyze and communicate the results of their research to peers and faculty
Public Service	BA https://publicaffairs.ucdenver.edu/programs/public-affairs-programs/bachelor-of-arts-in-public-service	1. Obtain a broad based knowledge of the history, evolution and roles of the government and nonprofit sectors in a market-based economy and democratic society 2. Understand the key elements of public service and the variety of organizations involved in public service activities 3. Develop skills to work productively with others in collaborative environments within and across public service organizations and sectors 4. Develop aptitudes and skills needed for the responsible management of financial resources in public service organizations 5. Understand and/or develop skills needed to design and implement service delivery and other types of programs intended to address public problems 6. Learn to assess public policy and management issues from a multi-disciplinary perspective 7. Develop the skills necessary to analyze information, think critically, and problem solve effectively in a public service environment 8. Gain an appreciation for the issues related to diversity, cultural awareness, and sensitivity to diverse values and differences and develop the aptitudes and skills to promote inclusiveness 9. Gain awareness of the democratic values and ethical concerns applicable to government and nonprofit organizations and develop aptitudes and skills to act ethically 10. Develop effective oral and written communication skills in the context of public service organizations and activities 11. Understand and apply interpersonal and leadership skills through multiple opportunities for exposure to or practice in public service environments