School	Certificate	Outcomes
BUS	Bioinnovation and Entrepreneurship	Goal: Think Entrepreneurially Objective: Explain the central components of successful business strategies in biotehnology and create a business plan.
BUS	Business Analytics	Goal: Students will acquire an understanding of data, technology, and mathematical models with the goal to produce evidence-based information for business and government decision makers.
BUS	Commodity (Graduate)	Goal: Effectively analyze commodities market data Objective: Use commodities information to improve business decision making under uncertainty at a managerial level
BUS	Commodity (Undergraduate)	Goal: Effectively analyze commodities market data Objective: Use commodities information to improve business decision making under uncertainty at an entry level
BUS	Cybersecurity	Goal: Act Securely Objective: Apply basic cybersecurity principles to identify, protect, detect respond and recover from cybersecurity threats.
BUS	Digital Marketing	Goal: Communicate Tactically with Digital Marketing Objective: Understand and apply the analytical models, frameworks, tools, and theories from communication, branding, and digital media to determine appropriate digital communication tactics that support strategic marketing goals and objectives.
BUS	Entrepreneurship (Graduate)	Goal 1: Think Entrepreneurially Objective 1: Evaluate Business Concepts and determine venture viability at a level appropriatefor a founder or manager.
BUS	Entrepreneurship (Undergraduate)	Goal 1: Think Entrepreneurially Objective 1: Evaluate Business Concepts and determine venture viability at a level appropriatefor a senior undergraduate student.
BUS	General Business Certificate	Goal 1. Analyze Critically Objective 1: Analyzes accounting information using the most appropriate methods, tools and/or frameworks for a given business problem. Goal 2. Lead Purposefully Objective 2: Participate in producing positive team objectives, possess teamwork skills and lead teams effectively.

BUS	Global Energy Financial Management	Goal: 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; Objective: Make tactical and strategic business decisions to maximize returns on investment and serve stakeholder interests across their organization and in the communities in which they operate.
BUS	Global Energy Leadership and Workforce Management	Goal: Leading and Managing People Demonstrate the ability to lead and manage geographically and culturally diverse people and organizations at both business unit (tactical) and enterprise (strategic) levels; Objective: Manage change to maximize business sustainability through times of increasing disruption in markets, technology, workforce, and political and social environments.
BUS	Managing for Sustainability	Goal: Analyze Critically Objective: Demonstrate critical thinking and problems solving skills using a sustainability lens by applying sustainability course knowledge to practical sustainability problems that companies face.
BUS	Marketing Analytics	Goal: Analyze Critically Objective: Analyze both quantitative and qualitative information using the appropriate methods, tools, theories, and/or frameworks to develop innovative solutions for various marketing problems.
BUS	Risk Management and Insurance	Goal 1. Recognize and manage business and personal risks Objective 1: Understand basic risk management concepts and terminology Objective 2: Identify business and personal risks and loss exposures Objective 3: Appropriately implement risk management techniques, including insurance and enterprise risk management (ERM) Objective 4: Understand how risk management adds to the value of the firm Goal 2. Demonstrate an understanding of the structure of the insurance industry Objective 1: Identify insurance company operations Objective 2: Distinguish between various types of insurance companies and insurance industry professionals Objective 3: Understand the appropriate

		uses of different types of insurance policies
		Goal 3. Analyze insurance company financial statements
		Objective 1: Understand differences between financial statements prepared according to generally accepted accounting principles (GAAP) used by large companies in all industries and statutory accounting principles (SAP) used by insurance companies for their regulatory reporting
		Objective 2: Calculate and interpret commonly-used ratios for assessing the financial strength of insurers

School	Certificate	Outcomes
CAP	Design-Build (Graduate)	1. Examines the traditional and current roles of Owner, Architect, Consultants, General Contractor and Subcontractors. 2. Examines systems that seamlessly integrate construction into the design phase of a project, specifically in conceptual pricing analysis from preliminary pricing packages and the early identification of building systems and components. 3. Identifies typical requirements of building codes, zoning ordinances and other regulatory requirements. 4. Gives the student a general introduction to building systems. 5. Understanding the importance of quality assurance for Design-Build, especially early in the process. 6. Examines the importance of job site safety and its role on the job site and with Construction trades. 7. Examines the various levels of cost estimating (conceptual, performance, and hard bid), organizing methods (systems, costs/square foot, components), and tracking trends during construction. 8. Explores software available for scheduling, estimating and project management. Examines the traditional construction means and methods used by Contractors. 9. Students are given a chance to develop a program, project schedule, project estimate and other requirements for the project. 10. Examines the importance of site design and building context for a project. 11. This 'studio' environment brings together students of various backgrounds and professions for a final 'capstone' project, and encourages the ability of individuals and teams to create solutions based on a predefined set of criteria. 12. The group study emphasizes the importance of teaming. 13. Teams of students are brought together to develop a solution, involving design and construction models. 14. Creates a general understanding of the Developer's and Contractor's roles during design and construction. 15. Examines the role of the project manager and the many skill sets required to lead a team from project concept to completion.

School	Certificate	Outcomes
CEDC	Construction Management Minor	1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics 2. 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. 3. 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 4. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
CEDC	Construction Project Management	1. Apply ethical principles to the relationships and decisions critical for construction. 2. Develop effective communication skills, meaningfully translating ideas into action. 3. Analyze the components and processes of project delivery for buildings and infrastructure. 4. Evaluate the tools and skills necessary to resolve situational challenges in full-scale, complex, dynamic environments. 5. Manage relationships among project stakeholders including personnel, clients, and communities
CEDC	Cybersecurity and Defense (Graduate)	1. Learn how to mitigate known cyber-related attaches against multiple network and infrastructure devices. 2. Learn how to design secure solutions, analyze new cyber-attacks. 3. Provide solutions that balance risk, security, privacy, cost and operations.

CEDC	Environmental Stewardship for Indigenous Lands	1. Knowledge in specialty STEM areas as they pertain to environmental issues. This is broadly defined as environmental contexts within STEM (science, technology, engineering and mathematics) and areas can vary. For example, in biology, a focus might be on the health of different biological systems (plants, animals, microorganisms) within the environment, while in civil engineering the emphasis might be on the infrastructure associated with environmental management. This learning will mostly take place in the classroom setting, noting that the courses will vary depending on the student's specialty area.
		2. Knowledge of Indigenous perspectives. In order to effectively represent Indigenous communities, students need to have a fundamental understanding of and appreciation for Indigenous culture, history, and values. This learning will mostly take place within the contexts of the ESIL internship (taken at any point during a student's tenure at the University) and the ESIL workshops and seminars. ESIL internships are collaboratively designed among partners and will vary in content and type of experience (by design to meet individual student needs and discipline within the context of environmental sciences). Specific content of ESIL workshops and seminars will also vary depending on the presenter, although all workshops and seminars are designed to teach Indigenous cultural awareness. For example, previously offered workshops have addressed traditional ecological knowledge; tribal governance and sovereignty; and US law as it pertains to Native American Nations.
		3. Ability to communicate with diverse audiences. Liaisons need to communicate across professional and cultural belief systems. ESIL students need to learn how to cross-culturally communicate often through situations involving party disagreement and mistrust. Additionally, the identification of, response to, and management of environmental issues is heavily dependent on one's ability to communicate with audiences with different perspectives and expectations. This learning will mostly take place through the ESIL internship and workshops and seminars. For example, previously offered

		workshops addressed facilitation; how to work for a federal agency; and how to align Indigenous cultural values with federal representation. 4. Skills to serve as an effective liaison. The ESIL certificate program offers opportunities for students to put their knowledge of these differences into practice in order to bridge the cultural perspectives. This learning will mostly take place during the ESIL internship where students will work with professional liaisons on environmental issues impacting Indigenous communities
CEDC	Geographic Information Systems and Geomatics	1. The main principles and concepts of GIS and Geomatics and how these tools are widely applied in the field. 2. The research design and methodological skills needed to successfully conduct major projects in GIS and Geomatics. 3. The modern software tools and methods used for data visualization, analysis, and mapping. 4. The effective project management strategies for data acquisition and database development.
CEDC	Integrated Construction, Management and Leadership	1. Analyze the components and processes of project delivery for buildings and infrastructure. 2. Evaluate the tools and skills necessary to resolve situational challenges in full-scale, complex, dynamic environments. 3. Manage relationships among project stakeholders including personnel, clients and communities. 4. Collaborate with diverse teammates, clients and communities leveraging unique skills and strengths to generate collective innovation.

CEDC	Modern Energy and Power Systems	1. Model and interconnect various energy and power system components (e.g. generators, transformers, transmission lines, power converters, motor drives) and gain an understanding of their interaction when operating as a system 2. Use mathematical analysis software tools to solve complex energy and power system problems, and present solutions effectively using reports
CEDC	RF and Antenna Engineering	1. Design and model practical antennas including arrays and RF circuits and waveguide components and understand their operation, parameters and limitations in various environments. 2. Test and measure RF systems and antennas. 3. Understand the methods used in modern commercial RF and Antenna simulation tools and apply such methods to the design and simulation of RF circuits and antennas
CEDC	Software Engineering (Graduate)	1. Learn basic knowledge for software requirements analysis and development. 2. Learn advanced skills for various techniques in software requirement analysis. 3. Learn how to design large scale complex systems and enterprise data systems 4. Master skills for development and management of large complex systems: software planning, estimations, staffing, and scheduling.

School	Certificate	Outcomes
CLAS	African American History	1. Students will explain theories and histories of marginalization and discrimination (especially colonialism; slavery; resistance) and the implications of biased treatment on contemporary events. 2. Students will identify diverse social positions and analyze how social position affects access. 3. Students will recognize their own attitudes and identities in the context of cultural diversity and how these impact their personal and professional interactions. 4. Students will summarize contributions and impact by people of African descent to institutions and society.
CLAS	Allied and Professional Health Sciences (Post-Bacc)	1. Learn the 15 core competencies, including thinking and reasoning, science (living systems and human behavior competencies), and pre-professional, and identify the competencies they have not previously acquired. 2. Demonstrate the ability to analyze and evaluate the core competencies and integrate those they want to develop a greater aptitude in into an academic plan that includes future coursework and extra-curricular experiences. 3. Describe and analyze the social, cultural, economic, and organizational aspects of the US healthcare system. 4. Apply academic knowledge, critical thinking skills, and experiences gained to prepare for professional opportunities, applications, and interviews.
CLAS	American Indian Studies	1. Students will explain how inaccurate images of American Indians in popular culture marginalize various tribal nations as historical relics, rather than vibrant contemporary communities. 2. Students will develop an awareness and understanding of American Indian history within the context of a multi-cultural history of the U.S. 3. Students will articulate how Indigenous peoples have developed advanced forms of knowledge that all societies can benefit from. 4. Students will apply academic knowledge and critical thinking skills to address situations and challenges that arise in American Indian community environments
CLAS	Applied Econometrics & Data Analytics (Graduate)	1. Use statistical software used to preform large scale data analysis. 2. Distinguish between causal and correlational relationships. 3. Understand the fundamentals of the potential outcomes framework, randomized experiments, natural experiments, and matching techniques. 4. Understand difference-in-differences and panel data models and their applications. 5. Understand the use of instrumental variables and regression discontinuity and how they are applied in research.
CLAS	Applied Statistics (Graduate)	1. Utilize probability and statistics in order to quantify uncertainty using theoretical properties 2. Build complex models for finding patterns and explaining data 3. Communicate statistical findings both orally and in writing

CLAS	Applied Statistics (Undergraduate)	1. Understand fundamental properties in probability and statistic theory 2. Build models for finding patterns and explaining data 3. Communicate statistical findings both orally and in writing
CLAS	Biotechnology	1. Students will be able to explain the foundational knowledge for key molecular biology concepts and techniques (including recombinant DNA technology, genome editing, gene therapy, stem cell biology, DNA sequencing, bioinformatics, proteomics and genomics) and be able to demonstrate how they are applied to molecular biotechnology. 2. Students will be able to critically interpret and assess the scientific literature in molecular biotechnology, in the context of the applications of a biotechnology company. 3. Students will be able to collect data and effectively analyze and communicate results using state-of-the-field laboratory techniques employed in biotechnology.
CLAS	Cultural Diversity Studies	1. Students will explain theories and histories of marginalization and discrimination and the implications of biased treatment on contemporary events. 2. Students will identify diverse social positions and analyze how social position affects access. 3. Students will recognize their own attitudes and identities in the context of cultural diversity and how these impact their personal and professional interactions. 4. Students will summarize contributions and impact by diverse groups to institutions and society.
CLAS	Data Science Essentials	1. Have basic programming ability in a language popular in data science (e.g., Python, R, Julia) 2. Be able to extract, manipulate, and visualize data 3. Understand probability and statistics in order to quantify uncertainty 4. Be able to build complex models for finding patterns and explaining data.
CLAS	Digital Studies (Graduate)	1. Theory and Analysis: Students will critically assess the relationships between digital technologies and society, as well as analyze online platforms and media content using disciplinary perspectives associated with the humanities and/or the social sciences. 2. Digital Media Production: Students will develop hands-on skills in the use of digital communication technologies with a variety of tools, such as digital video and photography, mapping, and social media management.
CLAS	Digital Studies (Undergraduate)	1. Theory and Analysis: Students will critically assess the relationships between digital technologies and society, as well as analyze online platforms and media content using disciplinary perspectives associated with the humanities and/or the social sciences. 2. Digital Media Production: Students will develop hands-on skills in the use of digital communication technologies with a variety of tools, such as digital video and photography, mapping, and social media management.

CLAS	Environmental Science Education (Graduate)	1. Synthesize environmental science content with culturally relevant practices 2. Identify multiple stakeholders and perspectives 3. Utilize critical thinking skills to broaden and deepen environmental knowledge 4. Improve communication
CLAS	Families and Social Welfare	1. Recognize the diversity of family structures within and across cultures 2. Understand the theoretical perspectives explaining family behavior and relationships, and those addressing differences in the institution of family across cultures and over time 3. Be familiar with current trends in family structure, and recent research on family functioning and well-being, and how family research informs advocacy and policy work, and social welfare programs 4. Be able to apply the technical skills of their methodological training to conduct analyses about families and family life, and outcomes assessments for social welfare programs aimed at helping families 5. Engage in original research projects involving family-related issues
CLAS	Free and Open Source Software for Geospatial Applications (Graduate)	1. Understand the connections and interactions of FOSS4G with the philosophy of Openness, the concept of interoperability, the distributed development of software, and distributed information systems. 2. Understand the importance and value of FOSS4G software in improving capabilities to better address specific socioeconomic, technological, institutional, and financial contexts where GISc&T is used to support planning and decision making. 3. Develop the necessary knowledge and skills in FOSS4G to design and develop a geospatial information infrastructure from desktop, database management systems (local and distributed), systems automation/customization, software integration, all the way to Web/Cloud-based applications and enterprise level solutions. 4. Acquire the knowledge and skills that will enable students to design and develop hybrid geospatial information infrastructures that make use of proprietary software and FOSS4G incorporating each of them in a combination that maximizes efficiency of the resulting geospatial information infrastructure. 5. For students taking the certificate at the graduate level, the requirements to fulfill the learning outcomes listed above will be higher and commensurate with the academic and professional background and maturity that is expected from a graduate student. Exams, labs, and term projects will have higher expectations and levels of complexity. Through extra readings, assignments, challenge tasks, and higher term project's sophistication, graduate students will develop broader and deeper knowledge and skills than their undergraduate counterparts.

CLAS	Free and Open Source Software for Geospatial Applications (Undergraduate)	1. Understand the connections and interactions of FOSS4G with the philosophy of Openness, the concept of interoperability, the distributed development of software, and distributed information systems. 2. Understand the importance and value of FOSS4G software in improving capabilities to better address specific socioeconomic, technological, institutional, and financial contexts where GISc&T is used to support planning and decision making. 3. Develop the necessary knowledge and skills in FOSS4G to design and develop a geospatial information infrastructure from desktop, database management systems (local and distributed), systems automation/customization, software integration, all the way to Web/Cloud-based applications and enterprise level solutions. 4. Acquire the knowledge and skills that will enable students to design and develop hybrid geospatial information infrastructures that make use of proprietary software and FOSS4G incorporating each of them in a combination that maximizes efficiency of the resulting geospatial information infrastructure.
CLAS	Geographic Information Science (Graduate)	1. Articulate and apply basic theoretical underpinnings of spatial analytical principles, methodologies, and techniques; 2. Effectively utilize at least three different types of software used for spatial analysis; 3. Apply geo-spatial thinking, geographic information science, and geo-technologies appropriately; and 4. Analyze diverse real-world problems that have a spatial dimension and develop alternative solutions to them. 5. Apply the knowledge geospatial analysis through practical applications either through their focus of study, through an internship or through a work study program.
CLAS	Geographic Information Science (Undergraduate)	1. Articulate and apply basic theoretical underpinnings of spatial analytical principles, methodologies, and techniques; 2. Effectively utilize at least three different types of software used for spatial analysis; 3. Apply geo-spatial thinking, geographic information science, and geo-technologies appropriately; and 4. Analyze diverse real-world problems that have a spatial dimension and develop alternative solutions to them.

| CLAS | Global History (Graduate) | 1. Inquiry and Analysis – Graduate Global History Certificate students will:
• develop a creative, focused, and manageable question for historical research in Global History
• synthesize evidence representing a variety of perspectives
• explain the challenges of constructing historical narratives using incomplete and contradictory evidence
• formulate a thesis and conclusion substantiated by primary and secondary source analysis
• critique alternative conclusions

2 Critical Thinking – Graduate Global History Certificate students will:
• identify and analyze the central issues, arguments, and points of view in primary and secondary sources pertaining to Global History
• evaluate authors' arguments and assess their evidence and conclusions
• critique their own and others' assumptions and the contexts in which they develop those assumptions
• use the concept of historiography, in order to compare and contrast a variety of scholarly texts
• analyze the ways the histories historians write are products of particular historical contexts

3. Written Communication – Graduate Global History Certificate students will:
• establish the context, audience, and purpose of their written assignments
• 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
• compose papers employing narrative, descriptive, and analytical writing to convey their historical knowledge and analytical skills

4. Information literacy – Graduate Global History Certificate students will:
• determine the types of sources that are relevant to a research question in Global History
• 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
• 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 |
| CLAS | Health and Development Economics (Undergradate) | 1. Use statistical software used to preform large scale data analysis.
2. Understand the challenges in identifying causal relationships using economics data.
3. Understand the fundamentals of the potential outcomes framework, randomized experiments, natural experiments, panel data models, matching, instrumental variables and regression discontinuity designs.
4. Understand the economic approach to studying the healthcare |

		sector, health behaviors, and health outcomes. 5. Explain concepts and measurement of economic development and understand the factors and constraints influencing economic decision-making in the developing world.
CLAS	Health Communication (Undergraduate)	1. Articulate the key assumptions and purposes of major theoretical models of health communication 2. Explain key methods of conducting health communication research 3. Locate and assess current research related to health communication 4. Analyze culturally diverse stakeholder needs for and interests in health messaging 5. Develop a plan for community participation in health message design 6. Employ digital, visual, oral, and textual information to influence audiences about health and wellness 7. Use storytelling to convey health messages across platforms 8. Design, critique, and assess health communication messages and campaigns utilizing a variety of communication tools 9. Create participatory, process-oriented, systemic health campaigns designed to change health behaviors
CLAS	Health Economics & Outcomes Research (Graduate)	1. Use statistical software used to preform large scale data analysis. 2. Distinguish between causal and correlational relationships. 3. Understand the fundamentals of the potential outcomes framework, randomized experiments, natural experiments, panel data models, matching, instrumental variables and regression discontinuity designs. 4. Understand the economic approach to studying the healthcare sector, health behaviors, and health outcomes. 5. 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 harmaceuticals.
CLAS	Historic Preservation (Graduate)	1. Design and execute appropriate research studies to examine historical, architectural, and geographical of potential preservation sites 2. Use descriptive and inferential statistics to analyze structures and their history 3. Conduct surveys of selected neighborhoods and individual buildings for planning purposes 4. Effectively communicate the merits of targeted sites to various audiences
CLAS	Immigration Studies	1. Understand the theoretical explanations for immigration flows, immigrant assimilation and exclusion, and ethnic formation and possess a fundamental understanding of the legal and political institutions responsible for immigration policy. 2. Be able to apply the content and methodological skills to engage in original research projects involving immigration topics. 3. Be able to apply the theories and examples from coursework to conduct immigration-focused internships in the workforce.

CLAS	Labor Leadership	1. Design, execute, and evaluate research studies that address a variety of questions related to labor issues and effective labor leadership 2. Critique community and labor organizing strategies, across time and place. 3. Analyze how local labor challenges are connected to global dynamics 4. Describe "social economy" and worker cooperative pathways to labor empowerment 5. Effectively communicate findings and recommendations to specific audiences
CLAS	Latinx Studies	1. Explore the contributions that Latinx individuals and populations have made in US history, culture, and society. 2. Recognize differences in national origin, mode of immigration, citizenship, skin color, gender and sexuality among Latinx individuals and populations and how these shape Latinx experiences. 3. Understand how the historical and political development of the U.S.- Mexican border and the changing roles of U.S. Latin American relations impact Latinx populations. 4. Analyze Latinx communities within cultural, social, political, and historical contexts.
CLAS	Mediation (Undergraduate)	1. Articulate the key theories and assumptions of conflict management research, negotiation skill development, and mediation practice 2. Develop skills for effective negotiation and third-party mediation services 3. Analyze current mediation research and practices 4. Design mediation structures and plans for successful mediation intervention 5. Articulate and enact current strategies and practices in negotiation and bargainin
CLAS	Middle Eastern Politics (Undergraduate)	1. Explain the place and function of the Middle East in the current international system. 2. Describe the diverse ideological, cultural, and religious expressions and divisions in the region. 3. Analyze the challenges facing democratization efforts in the region. 4. Analyze the causes of the main conflicts in the region and the reasons for the failure of international endeavors to resolve them.
CLAS	Professional Skills	1. Communicate their ideas in a clear and organized manner. 2. Demonstrate compositional and analytical skills in a chosen professional writing field. 3. Demonstrate proficiency in digital and media literacy or data literacy. 4. Devise problem-solving strategies with the skills developed through the certificate.

CLAS	Public, Non-Profit & Community Leadership (Graduate)	1. Analyze structural roots of community problems and sources of community strength 2. Critique public, non-profit and community organizing and/or leadership strategies, depending on issue or community context 3. Apply critical thinking skills to solve collective problems in a manner that improves the public good 4. Deepen involvement with diverse communities and real-world challenges (including internships and other experiential learning opportunities), allowing students to reflect on the relationship between theory, political practice and potential career paths. 5. Effectively communicate findings and recommendations to specific audiences
CLAS	Public, Non-Profit & Community Leadership (Undergraduate)	1. Critique community and labor organizing strategies, across time and place, and understand which strategies are most applicable to various situations 2. Analyze how local labor challenges are connected to global dynamics 3. Understand how governmental policies and practices affect labor dynamics 4. Effectively communicate regarding labor empowerment policies and strategies in labor, community, and governmental settings
CLAS	Sociology of Health & Medicine	1. Identify key social factors that drive health disparities, including socioeconomic inequality, sexism, and race-based discrimination 2. Articulate foundational theoretical perspectives outlining the mechanisms connecting social determinants of health to adverse health outcomes and health inequities 3. Utilize analytic techniques common to interdisciplinary health scholarship, including knowledge of data sources, data management techniques, and both the quantitative and qualitative methods used by health scholars to assess population health 4. Describe the current architecture of health policy in the US and abroad 5. Plan original research projects investigating the connections among social factors and population health
CLAS	Spanish for International Business	1. Communicate effectively in Spanish in business contexts. 2. Have mastered the basic vocabulary in the field of business; be able to use this vocabulary and the linguistics structures correctly and productively. 3. Understand and translate business texts. 4. Understand current tendencies and practices in international business in Spanish speaking countries and in Hispanic culture. Be able to give short presentations in Spanish on different issues related to the business world. 5. Be able to simulate and solve real business cases in Spanish

CLAS	Strategic Communication (Graduate)	1. Apply Research Concepts: Understands and can apply primary and secondary, formal and informal, quantitative and qualitative methods. Understands a premise and research plan. Decides on the population and sampling techniques. Designs instruments, etc.
		2. Conduct Research: Uses a variety of research tools to gather information about the employer or client, industry and relevant issues. Seeks to learn about stakeholders' understanding of the product, organization, and issues.
		3. Analyze Stakeholders: Identifies institutions, groups, or individuals who have an interest in or are affected by some part of the program. Assesses interest of influential institutions, groups, and individuals.
		4. Address Diversity: Identifies and respects a range of differences among target audiences. Researches and addresses the cultural preferences of target audiences. Understands culturally and linguistically appropriate strategies and tactics.
		5. Demonstrate Analytical skills: Objectively interprets data. Applies research findings.
		6. Conduct Audience Identification and communication: Identifies appropriate audiences and the opinions, beliefs, attitudes, cultures, and values of each. Prioritizes and properly sequences communications to the different audiences.
		7. Evaluate Programs: Determines if goals and objectives of public relations program were met and the extent to which the results or outcomes of public relations programs have been accomplished.
		8. Plan and Implement: Understands public relations programs based on research methodology or approaches that address the following components: Research, Goals, Planning, Execution, Monitoring, and Evaluation.
CLAS	Strategic Communication (Undergraduate)	1. Demonstrate knowledge of the field of public relations including key figures who influenced the field and major trends in the development of public relations as it is practiced today, as well as familiar with outmoded perceptions of the PR
		2. Define public relations and related concepts (e.g. publicity, advertising, marketing, press agentry, public affairs, lobbying, investor relations, social networking, and branding)
		3. Take into consideration current internal and external business drivers for client or employer and how industry forces and revenue/expenses impact stakeholder analysis and public relations planning
		4. Conduct professional activities in a principled manner and adhere to commonly accepted standards for professional behavior while demonstrating integrity and an understanding of ethical issue in public relations
		5. Uphold applicable international, national, state, and local laws regarding defamation of character (e.g. libel and slander), corporate governance, disclosure, copyright, trademarks, fair use, First Amendment issues, privacy laws
		6. Identify strengths, weakness, needs and lead times of various media
		7. Identify media and distribution channels appropriate for internal and external audiences, as well as influencers
		8. Enact the 9 stages of strategic communication
		9. Identify and respect a range of differences among target

		audiences using culturally and linguistically appropriate strategies and tactics 10. Demonstrate familiarity with communication theory and public relations research that guides planning, prioritizing audiences, developing messages, selecting spokespeople, establishing credibility and trust 11. Articulate the phases of crisis communication and assess the different needs of each phase 12. Consider audiences and objectives for each of the media and distribution types
CLAS	Sustainable Urban Agriculture Certificate (Graduate)	1. Demonstrate knowledge of the historical, geographical, and human-environmental issues driving agriculture and urban farming 2. Be able to explain the global and local economic factors that drive modern agricultural food systems 3. Participate in field observation and research of sustainable agricultural and related land management practices 4. Apply knowledge about sustainable urban agriculture to other realms of study 5. Apply the knowledge of sustainable agriculture through practical applications either through their focus of study, through an internship or through a work study program.
CLAS	Sustainable Urban Agriculture Certificate (Undergraduate)	1. Demonstrate knowledge of the historical, geographical, and human-environmental issues driving agriculture and urban farming 2. Be able to explain the global and local economic factors that drive modern agricultural food systems 3. Participate in field observation and research of sustainable agricultural and related land management practices 4. Apply knowledge about sustainable urban agriculture to other realms of study

CLAS	Teaching College-Level Language and Literacy (Graduate)	1. Reading and Analysis: Students practice close reading, analysis, and interpretation of discourses and media. Through classroom discussions and written assignments, students attend to the rhetorical strategies at play in written, visual, and auditory texts. Students analyze texts' words, meaning, nuance, contradictions, and audiences, so that they can expand their interpretations and contribute to scholarly conversations. 2. Critical Inquiry and Context: Students recognize texts as rhetorical responses to historically, politically, and culturally specific contexts. They identify the generic, cultural, historical, and intellectual influences that shape meaning, implications, and effects on audiences and consequent policy. Relying on their background in rhetorical theory, they engage with current scholarship in order to locate their arguments in relation to those in an ongoing conversation. 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 demonstrate knowledge of major rhetorical genres and awareness of historical movements as shapers of rhetoric. They learn to create and develop ideas within the context of current scholarship. Students acquire appropriate nomenclature for performing rhetorical analyses and for using theory to support their analyses. They learn to apply scholarly protocols of methodology and evaluate sources in their research.

| CLAS | Teaching College-Level Literature and Film (Graduate) | 1. Reading and Analysis: Students practice close reading, analysis, and interpretation of literary and cinematic texts. Through classroom discussions and written assignments, students practice rigorous and sustained close readings of texts, sharpening their interpretative skills. Students are attentive to artistic form in film, poetry, and literary narrative. They analyze words, meaning, nuance, and contradictions in texts that allow them to expand their interpretations and contribute to scholarly conversations.
2. Critical Inquiry and Context: Students recognize texts as artistic responses to historically, politically, and culturally specific contexts. They identify the generic, cultural, historical, and intellectual influences that shape meaning and implications in literature and film. Relying on their background in literary and film criticism, students engage with current scholarship in order to locate their arguments in relation to those in an ongoing conversation. 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 demonstrate knowledge of major genres in literature and film, and an awareness of the role that historical movements play in shaping literary/cinematic texts. They learn to create and develop ideas within the context of current scholarship. Students acquire appropriate nomenclature for analyzing literature and film, and using theory to support their analyses. They learn to apply scholarly protocols of methodology and evaluate sources in their research. |
| CLAS | Teaching English Language Learners (Graduate) | 1. Reading and Analysis: Students practice close reading and analysis of concrete linguistic situations. Through classroom discussions and written assignments, students practice rigorous and sustained close readings of texts, sharpening their attention to the challenges faced by English Language Learners. Students are attentive to words, meaning, nuance, and contradictions in texts that allow them to 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 sociolinguistic 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. Students also learn to develop research-based curricula. 4. Content: Students acquire knowledge of major theories of language and awareness of current scholarship in second language acquisition. Students demonstrate appropriate nomenclature in analytical/ theoretical analyses. They learn to apply scholarly protocols of methodology and evaluate sources in their research.
CLAS	Teaching English Language Learners (Undergraduate)	Whereas the categories of assessment remain the same for split level undergraduate and graduate level courses, their criteria differ. The research essay/final project provides the standard evaluation. 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. Students also learn to develop research-based curricula. 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.

CLAS	US History (Graduate)	1. Inquiry and Analysis – Graduate US History Certificate students will
		• develop a creative, focused, and manageable question for historical research in US History
		• synthesize evidence representing a variety of perspectives
		• explain the challenges of constructing historical narratives using incomplete and contradictory evidence
		• formulate a thesis and conclusion substantiated by primary and secondary source analysis
		• critique alternative conclusions
		2 Critical Thinking – Graduate US History Certificate students will
		• identify and analyze the central issues, arguments, and points of view in primary and secondary sources pertaining to US History
		• evaluate authors' arguments and assess their evidence and conclusions
		• critique their own and others' assumptions and the contexts in which they develop those assumptions
		• use the concept of historiography, in order to compare and contrast a variety of scholarly texts
		• analyze the ways the histories historians write are products of particular historical contexts
		3. Written Communication – Graduate US History Certificate students will
		• establish the context, audience, and purpose of their written assignments
		• 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
		• compose papers employing narrative, descriptive, and analytical writing to convey their historical knowledge and analytical skills
		4. Information literacy – Graduate US History Certificate students will
		• determine the types of sources that are relevant to a research question in US History
		• 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
		• 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

| CLAS | Women's and Gender Studies (Graduate) | 1. Understand the major concepts, theories, and challenges of Women's and Gender Studies as a discipline, while maintaining an awareness of the diversity of the field.
2. Possess a fundamental understanding of the history of feminist thought and its relationship to larger structures of power.
3. Recognize the intersections between gender and other social and cultural identities, including (but not limited to) race, ethnicity, national origin, sexuality, religion, and class.
4. Be able to apply feminist methodologies to research conducted in a variety of different disciplines.
5. Be empowered to bring ethically-engaged, intersectional analysis to a variety of social, historical, and political contexts. |

School	Certificate	Outcomes
Inworks	Human-Centered Design and Innovation (Graduate)	1. collaborate effectively in interdisciplinary teams, by integrating knowledge, techniques, skills, and/or terminology from their home discipline with other disciplines 2. design and prototype using specialized tools and techniques; 3. contribute meaningfully to the development of innovative solutions to complex and challenging problem
Inworks	Human-Centered Design and Innovation (Undergraduate)	1. collaborate effectively in interdisciplinary teams; 2. contribute meaningfully to the development of innovative solutions to complex and challenging problems; 3. implement potential solutions using a variety of prototyping techniques

School	Certificate	Outcomes
SEHD	Applied Behavior Analysis	1. Be able to apply principles of behaviorism to reduce aberrant behaviors and increase prosocial behaviors for consumers 2. Use single-case experimental designs to evaluate assessment and treatment programs 3. Effectively communicate results of assessment and treatment programs to consumers
SEHD	Buell Early Childhood Leadership Program	1. Examine one's personal identities, values, leadership theories and practices toward equitable, diverse and inclusive early childhood environments. 2. Apply appreciative and inclusive leadership practices with children, families, and colleagues to deepen awareness and understanding of the dynamic ecologies where children and adults live and learn. 3. Engage across multiple pathways for deepening understandings around the relevant and contextualized complex early childhood issues and opportunities to foster participatory collective action. 4. Critically analyze theories, policies, research and practices.
SEHD	Early Literacy	1. Understand classroom discourse and its implications through analysis of the discourse patterns of teacher and students during instructional contexts. 2. Understand the concepts of reliability, validity and authentic purpose of reading assessments through analysis of reading assessment tools. 3. Follow a line of inquiry regarding literacy assessment and gain experience in presenting information to colleagues. 4. Learn to create an inquiry project: a) Follow a line of inquiry regarding teaching and learning in their own classroom; b) Compile a modified literature review related to this inquiry; c) Investigate impact on teaching and learning; d) Gain experience presenting and discussing findings to colleagues

SEHD	Highly Effective School Library	1. Plan an effective library program for continuous quality improvement. 2. Design and implement lessons that integrate 21st century skills and state standards while collaborating with classroom teachers 3. Assess students' abilities to find, evaluate, create and communicate information in a variety of media. 4. Encourages and models reading in a variety of formats (print and digital) through a diverse collection of materials to promote literacy and a love for reading.
SEHD	Leadership for Learning Design and Technology	1. Design a variety of formative, integrated, and summative activities that enhance and assess authentic learning. 2. Engage in authentic inquiry designed to improve learning, performance, equity, and practice and share the findings with colleagues and professional audiences. 3. Participate in the planning and/or implementation of initiatives to support positive change, growth, and renewal in programs and practices. 4. Adopt a critical stance toward your work, promoting effective practice and responsible use of technology. 5. Advocate for equitable access to educational technology, digital content and learning opportunities to meet the diverse needs of all learners. 6. Model for colleagues the identification, exploration, evaluation, curation and adoption of new digital resources and tools for learning. 7. Manage projects, people, and resources in carrying out design and pedagogical work
SEHD	Learning Experience Design	1. Engage in an iterative design process informed by theories of learning, critical digital pedagogy, and design thinking. 2. Ensure that learning outcomes, activities, and assessments are aligned to support learning. 3. Design authentic learning opportunities that align with content area standards and/or learning outcomes and use digital tools and resources to maximize active, deep learning. 4. Apply learning design principles to create innovative learning spaces and digital learning environments and resources that engage and support

		learning.
		5. Apply principles of social learning, open sharing, and knowledge construction to build community and foster meaningful learning interactions
SEHD	Literacy and Language Development for Diverse Learners	1. Demonstrate knowledge of literacy and language developmental stages and basic literacy concepts as well as the relationship of literacy, language, and cognition development by analyzing literacy and language samples using language structures and discourse patterns. 2. Analyze and develop instruction to support oral language development, academic reading acquisition, and academic writing acquisition for both native speakers and English language learners. 3. Collect and analyze assessment data as a guide for making effective instructional decisions to support literacy instruction and language of native speakers of English and speakers of English as an additional language. 4. Examine how one's cultural identity affects their instruction; collect and analyze district and school data that account for differences with regard to literacy, language, and culture then develop a plan for productive change.
SEHD	Mathematics Content Knowledge for Teaching	1. Increase your knowledge of number systems and ability to foster students' understanding of number, quantity and operation. 2. Develop your understanding of algebra concepts and effective ways to increase students' learning of equivalence, variable, covariation and function. 3. Expand your geometrical reasoning and your ability to promote students' understanding of transformation, measurement, classification, objects, imagery, formulas and investigation.

SEHD	Online Teaching and Learning	1. Use various digital media and technology in support of learning, collaboration, and communication in online courses. 2. Use digital media and technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs. 3. Apply learning design principles to create innovative learning spaces and digital learning environments and resources that engage and support learning. 4. Apply principles of inclusion, social learning, open sharing, and knowledge construction to build community and foster meaningful learning interactions.
SEHD	Open Digital Education	1. Become competent, creative, and confident in the use of various digital media and technology in support of learning, collaboration, and communication. 2. Design learning opportunities, experiences, and programs, making best use of resources and engaging the full range of learner needs and strengths. 3. Engage in relevant and intentional inquiry to address organizational needs and opportunities, explore problems of practice, and inform decision making that leads to positive change and growth. 4. Seek out opportunities for leadership to support learner agency and success by improving teaching and learning with the use of digital media and technology. 5. Continually improve professional practice by learning from and with others and exploring proven and promising practices that leverage technology to improve learners' learning and performance.
SEHD	Pathways2Teaching Paraprofessional	1. Better understand the need for a culturally responsive, diversified teacher workforce 2. Learn to write a comprehensive literature review 3. Have approximately 100 hours of supervised field experience at local elementary schools 4. Understand the role of special education, paraprofessionals, and special education teachers in serving students

		with disAbilities 5. Demonstrate an understanding of language as a system and demonstrate a level of competence in helping ESOL students acquire and use English in listening, speaking, reading and writing for social and academic purposes

School	Certificate	Outcomes
SPA	Crime Analyst	1. Design and execute appropriate research studies to answer a variety of questions about crime and crime trends 2. Use descriptive and inferential statistics to analyze crime and related data 3. Conduct temporal and spatial analyses of crime and related data 4. Effectively communicate findings to specific audiences
SPA	Disasters, Hazards, and Emergency Management	1. Be familiar with key concepts and public policies affecting management and decision-making in the profession of emergency management, including the disaster cycle, incident command structures, and interagency roles and responsibilities 2. Understand and be able to apply evidence-based decision-making techniques in emergency management 3. Understand the interdisciplinary nature of emergency management and be able to use strong communication and coordination skills to improve emergency management responses and improve community preparedness and resiliency 4. Understand how government personnel can plan and manage towards resilience to reduce risks from future disasters
SPA	Education Policy	1. Understand how K-12 education is governed and regulated in the United States 2. Understand how K-12 education is financed in the United States
SPA	Emergency Management and Homeland Security	1. Be familiar with key concepts and public policies affecting management and decision-making in the profession of emergency management, including the disaster cycle, incident command structures, and interagency roles and responsibilities 2. Understand and be able to apply evidence-based decision-making techniques in emergency management 3. Understand the interdisciplinary nature of emergency management and be able to use strong communication and coordination skills to improve emergency management responses and improve community preparedness and resiliency 4. Understand how government personnel can plan and manage to reduce vulnerability to all types of hazards

SPA	Environmental Policy and Management	1. Understand the politics of environmental policy-making and policy implementation, including the role of values, institutions, jurisdictions, and stakeholders 2. Understand, evaluate, and implement a wide variety of policy tools commonly used to address environmental issues 3. Have the skills and knowledge to identify and resolve a broad array of environmental management challenges
SPA	Gender-Based Violence	1. Understand the psychological and sociological variables contributing to and resulting from interpersonal violence 2. Gain familiarity with federal and state laws and other public policies addressing interpersonal violence and its impacts 3. Develop knowledge and skills for advocating on behalf of individuals and communities impacted by interpersonal violence
SPA	Law Enforcement	1. Understand the basics of the field of law enforcement, including the context which law enforcement occurs and the institutions and procedures that govern it. 2. Understand law enforcement through a variety of lenses and be able to develop and articulate evidence-based and well-reasoned resolutions to law enforcement challenges. 3. Learn specific skills that apply to different careers within law enforcement (e.g., investigation, data analysis, administrative leadership, etc.), including understanding how the skills they learn are used by professionals in the field as well as the relevance of the skills to specific tasks.
SPA	Local Government	1. Understand the politics of local government policy-making and policy implementation, including the role of values, institutions, jurisdictions, and stakeholders 2. Have the skills and knowledge to identify and appropriately resolve a broad array of local government management challenges
SPA	Nonprofit Management (Graduate)	1. Understand the history and purpose of nonprofit organizations in American society and the various factors and constraints affecting their missions, structures, operations, and organizational effectiveness 2. Have the skills and knowledge to identify and appropriately resolve a broad array of nonprofit organizational management challenges

SPA	Nonprofit Management (Undergraduate)	1. Understand the history and purpose of nonprofit organizations in American society and the various factors and constraints affecting their missions, structures, operations, and organizational effectiveness 2. Have the skills and knowledge to identify and appropriately resolve a broad array of nonprofit organizational management challenges
SPA	Public Policy Analysis	1. Students will understand the context, structure, and processes involved in the formulation and implementation of public policy 2. Students will gain knowledge of common analytical tools and approaches used in public policy analysis
SPA	Victims and Victim Studies	1. Understand the terminology, relationships, and issues relevant to victims and service providers who interact with them, including legal and ethical responsibilities and mandates and the relational dynamics that affect victims. 2. Understand the institutional influences on crime and victimization, including how structural influences contribute to rates of victimization (or factors that affect victimization), as well as how these macro-level influences impact individual victimization. 3. Understand different types of victimization and the impact of crime on diverse populations and be able to analyze victimization through different lenses.