

Graduate Degree Programs
FY 2024

Program	Justification for Reporting
Anthropology, M.A.	<p>The M.A. in Anthropology has the following educational objectives: to provide opportunities for post-baccalaureate study about the human species from evolutionary and cross-cultural perspectives; to provide training for the application of anthropological techniques and perspectives to contemporary social problems; to expand cross-cultural understanding within regional and national communities and institutions; to expand understanding of the complex interconnections between local communities and global environments, both natural and social; to emphasize the importance of cross-disciplinary, biocultural approaches to research on the human species.</p>
Business Administration, MBA	<p>The primary objective of graduate study in business is to develop candidates for leadership positions in complex organizations. The MBA program focuses on developing the expertise to lead, influence, and persuade others through effective written and spoken communications; the ability to approach complex problems both systematically and imaginatively; the confidence to make decisions in the face of imperfect information, competing objectives, and technological change; the insight to recognize the ethical dimensions of organizational and individual decisions; the sensitivity to recognize that organizational decisions involve teamwork and consensus-building across diverse groups of individuals; and the awareness that business represents an inherently multinational enterprise that exists without geographical or cultural boundaries.</p>
Civil Engineering, M.S.C.E., or Engineering, M.S.E.	<p>The Master of Science in Civil and Environmental Engineering offers graduate studies in five areas of concentration: environmental and water resources engineering, geo-environmental engineering, geotechnical engineering, structural engineering and materials, and transportation engineering. Areas of focus include Environmental, Geo-Environmental, Bio-Environmental, Structural, Transportation, Forensics, Sustainable Design, Energy, and Land Development.</p>
Civil Engineering, Ph.D.	<p>The Ph.D. program also will support students conducting research within unique centers and facilities, including the U.S. Department of Transportation-funded Center for Advanced Multimodal Mobility Solutions and Education (CammSE); the National Science Foundation-funded Center for Sustainably Integrated Building and Sites (SIBS); the Infrastructure, Design, Environment and Sustainability (IDEAS) center; the Infrastructure Security and Emergency Responder Research and Training (ISERRT) Facility; and the Center for Transportation Policy Studies.</p>
Construction and Facilities Engineering, M.S.	<p>Facility Engineering is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology. The body of knowledge required for facility engineering degree programs includes facility function (professional practice), human and environmental factors, planning and project management, finance, operation and maintenance, real estate, written and oral communication, information technology, quality management and assessment procedures (research and analytical methods), and integrative and problem-solving skills. The program also has a special relationship with and focus on sustainability and energy infrastructure as part of the Energy Production and Infrastructure Center (EPIC) and Innovative Design, Engineering, and Sustainability (IDEAS) Center initiatives at UNC Charlotte.</p>
Counselor Education and Supervision, Ph.D.	<p>A unique feature of this program is its emphasis on increasing knowledge, awareness, and skills in interacting with socially and culturally diverse populations. The program addresses professional roles in five doctoral core areas: (1) counseling, (2) supervision, (3) teaching, (4) research and scholarship, and (4) leadership and advocacy. These five doctoral core areas represent the foundational knowledge required of doctoral graduates in counselor education. Doctoral-level students in counselor education may work as counselor educators, counselor supervisors, direct service providers, program consultants, researchers, program evaluators, and in other roles that require leadership in the areas of counseling, human services, family development, and community organizations.</p>

Curriculum and Instruction, Ph.D.	<p>Studies include a substantive core in urban education and educational research. Students may focus their study on education for learners at elementary, middle grades, secondary, K-12, or post-secondary/adult levels. Lead inquiry into the nature of curriculum theory and the relationship that theory has upon the major sources, components, and processes required in curriculum development, particularly within expanding urban-regional environments. Demonstrate relationships among curriculum theory and design, models of and research about teaching and learning, variations among learners, and the ideological, social, and disciplinary contexts of teaching and learning, including the influence on urban-regional schools, state and national policies, curriculum philosophy, and political pressures.</p>
Earth Sciences, M.S.	<p>Earth Sciences faculty offer courses and are active in research areas that include surface and groundwater hydrology, vadose zone processes, geochemistry, igneous and metamorphic petrology, biogeochemistry, mineralogy, structural geology, applied geophysics, remote sensing, soil science, Quaternary geology, geomorphology, fluvial processes, depositional environments, biodiversity, landscape ecology, urban ecology, sustainability, forestry, clastic and carbonate sedimentology, basin analysis, stratigraphy, coastal geology, paleoecology, macro- and micropaleontology, environmental geology, applied climatology, global fire modeling, biogeophysical modeling, climate model evaluation, terrestrial carbon cycling, aerosol physics and chemistry, air quality, renewable energies, numerical weather prediction, severe weather, tropical meteorology, and environmental epidemiology.</p>
Electrical Engineering, M.S.E.E.	<p>The M.S. in Electrical Engineering (MSEE) program provides students with advanced knowledge on the theory and applications of electrical systems and signal processing. The program spans across the broad areas of communications, controls, and signal processing; electronic and electromagnetic devices; and power and energy systems. Sub-specialties include metamaterials, antennas, photonics, wireless communications and networking, robotics and dynamical systems, image processing and computer vision, machine learning, power generation and delivery, renewable energy, and power electronics.</p>
Electrical Engineering, Ph.D.	<p>The ECE department offers the Ph.D. degree in Electrical Engineering, which provides advanced knowledge and research experience in one of the four research areas: with one of them being power systems which has active research areas including power systems modeling and analysis, power electronics, Smart Grid, microgrids, power system stability and control, power system optimization, utility applications, high voltage, condition monitoring, economic operation of power systems, electromechanical systems and drives, power system protection, and renewable energy.</p>
Engineering Management, M.S.	<p>The Master of Science in Engineering Management prepares professionals for careers in managing projects, programs, systems, and organizations. Industrial, research, consulting, and commercial firms now demand engineering managers with both cutting-edge technical competence and the management skills necessary to forge linkages with the systems and business sides of these organizations. The program of study is multidisciplinary, combining elements of advanced study in various engineering disciplines with studies in business, system operations and organizational behavior. Through a flexible curriculum and concentrations, the program enables concentration areas such as Energy Systems, Lean Six Sigma, Logistics and Supply Chains, and Systems Analytics.</p>
Fire Protection and Safety Management, M.S.	<p>The Master of Science in Fire Protection and Safety Management program provides an advanced technical background for safety professionals involved with fire protection / administration in areas such as fire protection analysis and design, fire service, and fire safety and security, as well as safety management, occupational safety, industrial hazards and safety, industrial hygiene, and related areas. The Fire Protection and Safety Management program is designed to provide the necessary knowledge and skills to begin work in many areas of the fire protection and occupational health and safety fields, and to solve safety problems in a complex technical society. Safety Management coursework prepares professionals to evaluate industrial hazards, assess risk and develop safety management plans while addressing industrial hygiene, environmental pollution control, ergonomics, and human factors.</p>

Geography, M.A.	<p>The Master of Arts in Geography emphasizes the application of skills, methods, and theories to solve geographic problems in contemporary society. To this end, students gain a solid foundation in spatial, locational, and planning theory, research methods (quantitative and qualitative), and Geographic Information Science and Technology (GIS&T). Building on the strengths and research interests of the graduate faculty in the Department of Geography and Earth Sciences and colleagues across campus, there are five areas of concentration within the geography program: Business Location and Transportation Analytics, Geographic Information Science and Technology (GIS&T), Human and Environmental Systems, Urban and Regional Analysis, Urban Planning</p>
Geography, Ph.D.	<p>Students in the Ph.D. in Geography program at UNC Charlotte graduate at the cutting edge of geographic knowledge, instruction, and practice, both within and beyond the academy. Building on the expertise and research strengths of the graduate faculty in Geography and Earth Sciences, there are three areas of focus within the doctoral Geography program: Urban and Regional Analysis, Earth and Environmental Systems, Geographic Information Science.</p>
Health Administration, MHA	<p>The Master of Health Administration (MHA) program develops healthcare leaders prepared to advance health equity and well-being in an urbanizing world. This mission is pursued through education, research, and service that: Gives students the knowledge, skills, and values needed to lead dynamic health systems. Creates knowledge needed to lead people and organizations providing health services. Increases the diversity of health services leaders, with a special emphasis on individuals and groups historically underrepresented in graduate education. Promotes the public's health.</p>
Health Psychology, Ph.D.	<p>Health Psychology is dedicated to conducting basic and applied research examining the contribution of biological, psychological, behavioral, social, cultural, and environmental factors to health and illness. Health Psychology builds from principles and theories of other areas of psychology, biology, health, and social sciences. Health psychologists are concerned with promotion and maintenance of health, the prevention and treatment of illness across the lifespan, and improvement of systems that promote and maintain health.</p>
Infrastructure and Environmental Systems, Ph.D.	<p>The Ph.D. in Infrastructure and Environmental Systems (INES) is an interdisciplinary program emphasizing: (a) innovations in design, analysis, construction and operation of urban, energy, and environmental infrastructures; (b) scientific analysis of environmental systems and contemporary sustainability issues; and (c) exploration of sustainable and renewable resources. The interplay between the environment and infrastructure is thoroughly studied by students as they confront the challenges facing urbanizing regions. INES engages a diverse group of talented faculty from the science, engineering and management disciplines</p>
Infrastructure and Environmental Systems, Ph.D.	<p>An interdisciplinary program emphasizing: (a) innovations in design, analysis, construction and operation of urban, energy, and environmental infrastructures; (b) scientific analysis of environmental systems and contemporary sustainability issues; and (c) exploration of sustainable and renewable resources. The interplay between the environment and infrastructure is thoroughly studied by students as they confront the challenges facing urbanizing regions.</p>
Interdisciplinary Studies, M.A.	<p>Getting a Master of Arts in Interdisciplinary Studies allows graduate students to become critical and creative thinkers about a topic of their interest. This, in turn, prepares graduates to succeed and stand out from their peers in a wide variety of careers, including management, human resources, law, university instruction, social justice, and sustainability, among other vocations and additional graduate programs. In fact, what makes this degree unique and exciting is that it is limited only by the student's interest.</p>

Latin American Studies, M.A.	<p>The M.A. program in Latin American Studies has the following educational objectives: To study the culture, geography, history, politics, and society of Latin America and the Spanish-speaking Caribbean, To provide an understanding of the socio-cultural background of the Latino population in the United States, To understand economic development and underdevelopment from a comparative perspective, To undertake interdisciplinary research in the humanities and social sciences using a variety of methodologies, To instill writing and critical thinking skills by teaching rigorous scholarly inquiry and research, and To develop language competencies in Spanish and/or Portuguese</p>
Masters of Urban Design	<p>The program is an applied research and design degree that engages the complex issues faced by contemporary towns and cities in America, particularly those being reshaped by shifting demographics, global capital, information technology, and environmental sustainability.</p>
Public Administration, M.P.A.	<p>The Master of Public Administration provides education and training for the public and nonprofit sectors, conduct scholarly and applied research to advance the field of public administration, and serve the community. MPA students have the option to concentrate their studies in several specialized areas: Non-Profit Management, Urban Management & Policy, Arts Administration, Emergency Management, and Public Finance.</p>
Public Health Sciences, Ph.D.	<p>The focus of the PhD in Public Health Sciences is to train researchers and professionals with skills essential to address contemporary public health problems at the individual, community and population levels. Drawing on the social-ecological framework, public health is an interdisciplinary field encompassing public health practice in the community; scientific research utilizing theoretical perspectives from disciplines such as anthropology, economics, geography, gerontology, medicine, nursing, psychology, and sociology; and 5 core areas of endeavor: environmental and occupational health, biostatistics, epidemiology, social and behavioral health factors, and health policy and administration.</p>
Public Health, MPH	<p>The Master of Public Health (MPH) program prepares graduate students to apply core principles of public health within a variety of community settings and to advance the public health profession. The MPH program seeks to fulfill the Department of Public Health Sciences' vision: "Healthy communities partnered with responsive population health systems." To support the department's mission, "Advancing health equity and well-being in an urbanizing world," the MPH program develops leaders in evidence-based practice who advance the public's health. The program values collaboration, community engagement, diversity, innovation, professionalism, health equity, and social justice in its pursuit of attaining the highest possible standards of health and well-being.</p>
Public Policy, Ph.D.	<p>The Ph.D. in Public Policy is an interdisciplinary program focused on the study of policy development, implementation, and evaluation. It stresses the development of skills, tools, and specialties, as well as a theoretical understanding of them, that contribute to our understanding of the structure of institutional systems and sub-systems, and of how policy should be shaped within social, economic, and political environments.</p>
Social Work, M.S.W.	<p>UNC Charlotte's nationally-ranked Master of Social Work program prepares students to be social work professionals and leaders in areas of culturally-informed, community-engaged practice, policy, and research. MSW students receive an advanced generalist social work education, and specialize their study through electives and field work. The MSW program emphasizes social justice through the curriculum, and intervening at all levels of society. The location in Charlotte offers both urban and rural opportunities for learning in the field.</p>

<p>Sociology, M.A.</p>	<p>The Master of Arts in Sociology provides students with theoretical and methodological skills necessary to undertake analysis of contemporary social issues and problems. The curriculum is designed to meet the needs of students seeking master's level research skills for occupations requiring such expertise: in government, marketing, program planning and evaluation, business, the media, and in the nonprofit sector. The curriculum also prepares students who wish to pursue the Ph.D., whether in sociology or a related discipline. The Department of Sociology is a core part of the Ph.D. programs in Public Policy and Organizational Science at UNC Charlotte</p>
<p>Urban Education, M.Ed.</p>	<p>The M.Ed. in Urban Education is a fully online degree program designed to prepare education professionals who are committed to delivering high-quality, culturally relevant/sustaining instruction and services that meet the needs of students in increasingly diverse, urban school systems across the United States. UNC Charlotte is particularly focused on providing professionals with practical tools and resources that increase multicultural competence and awareness. To achieve its objectives, the program aims to equip teachers, administrators, paraprofessionals, counselors, and those alike – who currently work or aspire to work in, or with, urban schools – with practical approaches to implementing evidenced-based best practices that improve the educational experiences and academic outcomes of racially, linguistically, socioeconomically, and culturally diverse populations. Students who graduate with an M.Ed. in Urban Education from UNC Charlotte not only gain a pedagogical (instructional) skill set that informs their understanding of culturally responsive/sustaining teaching practices, but they are also trained to recognize and examine larger issues related to culture, race, and racism that influences the quality of non-academic services (counseling, mentoring, social/behavioral support, etc.) prospective graduates may provide to urban communities.</p>

Graduate Minors, Concentrations, and Certificates

FY 2024

Program	Justification for Reporting
Anti-Racism, Graduate Certificate	The Graduate Certificate in Anti-Racism acknowledges the completion of a coherent curriculum that draws from four (4) content courses addressing race and racism in professional or organizational spaces. The Graduate Certificate in Anti-Racism caters to individuals interested in an advanced degree that provides an understanding of education in urban environments with a focus on race, racism, and anti-racism. While the fundamentals of this certificate are rooted in educational systems, drawing on and extending the pedagogical expertise of educators, the programs was strategically designed so these knowledges and skills can disrupt racism in any system, such as politics, housing, public health, healthcare, economics, criminal justice, and beyond. The certificate demonstrates that students have completed coursework enabling them to become justice-oriented change agents in the organizations in which they work.
Applied Energy, Graduate Certificate	Applied Energy studies the areas of energy conversion and conservation, optimal use of resources, analysis and optimization of energy processes, as well as the limitation of environmental pollutants, and the development of sustainable energy systems. The graduate certificate in Applied Energy affords students the opportunity to learn through a hands-on orientation which challenges them to think critically, communicate, and work in teams to solve problems.
Applied Ethics, Graduate Certificate	The Graduate Certificate in Applied Ethics is of interest to three groups of students: (1) professionals working in areas of applied ethics; (2) students just beginning to explore graduate work in philosophy; and (3) students in other master's and doctoral programs, such as biology, health administration, and public policy, who expect their careers to include work in applied ethics.
Architecture, M.S., Critical Heritage Studies Concentration	The preservation and interpretation of the built environment is interconnected with both social and environmental sustainability and integrated within discourses and practices surrounding other tangible and intangible heritages happening in museums, archeological sites, and elsewhere. This concentration seeks local solutions while engaging in global conversations; emphasizes hands-on engagement with communities and organizations; challenges authorized heritage discourses; diversifies approaches and practices of engaging with the past; and promotes the stories and sites that foreground the heritage of underrepresented communities.
Autism Spectrum Disorder (ASD), Graduate Certificate	The Graduate Certificate in Autism Spectrum Disorder is a 12-credit hour, non-licensure, online program. It serves two groups of professionals: (1) those who work in school districts and are responsible for teaching individuals with Autism Spectrum Disorder and for developing appropriate individualized education programs that include academic instruction and effective intervention practices in the areas of communication, daily living, and social skills; and (2) those who work in human service agencies and are responsible for providing intervention practices in the areas of communication, daily living, and social skills as well as preparing individuals with Autism Spectrum Disorder to live, work, and learn as adults.

Biotechnology, Graduate Certificate	<p>The Graduate Certificate in Biotechnology offered by the Department of Biological Sciences is a multi-disciplinary program designed to combine advanced discipline-specific coursework with activities that develop those communication and technical skills that are highly valued by employers in the biotechnology industry. Successful completion of the certificate program provides students with a solid foundation for success through practical experience gained via internships in laboratories on campus or in local industry. The certificate program also cultivates an awareness of ethical, policy, and management issues related to the biotechnology industry. The faculty and staff of the certificate program assist students toward achieving their greatest academic, personal, and professional potential through quality courses and instruction. In addition, the certificate program helps meet the employment needs of biotechnology laboratories and provide quality continuing education to laboratory professionals in our service area.</p>
Crime Analysis, Graduate Certificate	<p>The graduate certificate in Crime Analysis provides students with exposure to practical skills and theoretical insight into understanding crime patterns. The certificate also provides exposure to the ethical issues surrounding data management and analysis. The certificate includes courses aimed at providing students with a marketable skill set.</p>
Early Childhood Mental Health, Graduate Certificate	<p>The Graduate Certificate in Early Childhood Mental Health (ECMH) program is sponsored jointly by UNC Charlotte's School of Social Work and Department of Special Education and Child Development. It is an interdisciplinary post-baccalaureate certificate program that addresses the increasing need for mental health services for children from birth to five years of age. There is growing interest in infant and early childhood mental health; however, young children are rarely the focus of graduate training programs. Whereas mental health work with older children emphasizes increased personal choice-making and negotiation skills, mental health work with younger children is focused on the quality of the child's relationships, resources, and social environment. Consequently, parents and other caretakers are a much more integral part of prevention and intervention efforts for young children.</p>
Entrepreneurship and Innovation, Graduate Certificate	<p>The Graduate Certificate in Entrepreneurship and Innovation provides students with a strong foundation in entrepreneurship and innovation. The certificate aims to satisfy the increasing societal demand for skill sets related to entrepreneurship and innovation. Entrepreneurship serves as the path through which innovations and improvements to the overall quality of life within society come to fruition. In doing so, entrepreneurship and innovation drive economic development.</p>
Gender, Sexuality, and Women's Studies, Graduate Certificate	<p>The Women's and Gender Studies program at UNC Charlotte explores the ways that gender influences social structures and individual experience around the world. We view gender as a category of analysis that includes women, men, transgendered individuals, and other genders.</p>
Geographic Information Science and Technology, Graduate Certificate	<p>The Graduate Certificate in Geographic Information Science and Technology (GIS&T) program provides students in-depth training and education in GIS. Students with different backgrounds (e.g., biology/ecology, geography, earth sciences, meteorology, engineering, social science, public health, and computer science) are exposed to knowledge in cutting-edge geospatial theory, methods, and technologies, including GIS, spatial analysis, remote sensing, cartography, and geovisualization. Students develop geospatial skills that are of great help in their domain-specific problem-solving using state-of-the-art GIS. The GIS training that students receive from the graduate certificate program makes them highly competitive in their future careers in academic or industrial fields.</p>
Nonprofit Management, Graduate Certificate	<p>Designed to provide graduate education in nonprofit management for those individuals who are currently serving as managers or volunteers in nonprofit organizations, or those who might want to pursue careers in nonprofit management. The certificate is also intended to serve the interests of students currently enrolled in UNC Charlotte graduate programs.</p>

[Urban Management and Policy, Graduate Certificate](#)

As part of the Master of Public Administration program, the graduate certificate in Urban Management and Policy provides education and training for the public and nonprofit sectors, conducts scholarly and applied research to advance the field of public administration, and serves the community.