THE COLLEGE OF HEALTH AND HUMAN SERVICES
FACILITIES & RESOURCES GUIDE

THE COLLEGE OF HEALTH AND HUMAN SERVICES

OFFICE OF RESEARCH
UNC CHARLOTTE
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The College of Health and Human Services

About
Our growing and dynamic college offers a wide range of graduate and undergraduate degree and certificate programs to prepare graduates to pursue advanced degrees, and for a variety of practice, research and administrative roles in the health and human services fields. Our high quality, innovative educational programs include opportunities to study abroad and for distance education. Academic units include the Department of Kinesiology, Department of Public Health Sciences, School of Social Work, and the School of Nursing.

Mission & Vision
The College of Health and Human Services offers professionally recognized and accessible undergraduate and graduate programs that are nationally and globally relevant, and responsive to changing needs of health care and human services in the state and region. The College achieves excellence through informed and effective teaching in its degree programs, community outreach services and partnerships, professional activities, and research to advance science and practice in the health and human services professions.

The College mission is focused on achieving excellence in teaching, research and service. Research is ongoing in a number of areas including health services research, effects of physical activity on health, promoting healthy individuals and communities, and research with specific chronic illnesses. The health and human services fields demand that professionals maintain cutting edge knowledge, and our faculty are actively engaged in the advancement of knowledge of the basic mechanisms underlying health and illness, and improving the delivery of health and human services. Community leadership is an important aspect of our college mission and faculty are active in community service.

Profile of Students in CHHS
The Fall 2016 Census Report for the College of Health and Human Services at UNC Charlotte reports a total undergraduate enrollment of 2,794 students, including students seeking baccalaureate degrees in Athletic Training, Exercise Science, Respiratory Therapy, Neurodiagnostics & Sleep Science, Nursing, Public Health, and Social Work. Of these, 60% of students are Caucasian and 34% are minority (African American, Hispanic, American Indian, or Asian). The other 6% is comprised of non-resident aliens, any two or more races, and those who did not specify a race. Full-time students comprise 78% and part-time students comprise 22% of those seeking baccalaureate degrees.

The Census Report also states that for fall there were 662 graduate students enrolled in the College of Health and Human Services graduate programs: PhD in Health Services Research, Doctor of Nursing Practice, PhD in Interdisciplinary Biology, Master of Health Administration, Master of Science in Kinesiology, Master of Science in Nursing, PhD in Public Health Sciences,

**Facilities**
The College of Health and Human Services is a key component of the vibrant environment of UNC Charlotte. The Departments of Kinesiology, Public Health Sciences, Social Work and the School of Nursing have outstanding facilities and resources that support the accomplishment of its mission of excellence in education, research and service with an increasing emphasis on research. The College of Health and Human Services is housed in its eponymous 138,000 square foot $34 million state-of-the-art building, The College of Health & Human Services building, and an upgraded Belk Gymnasium with $20 million of new renovation.

The College of Health and Human Services is a key component of the vibrant environment of UNC Charlotte. The college houses four academic units: School of Nursing, Department of Public Health Sciences, Department of Social Work, and Department of Kinesiology. The College supports significant investigator-initiated research funded through the National Institutes of Health, Robert Wood Johnson Foundation, Center for Disease Control and Prevention, Health Resources and Services Administration and numerous other national and local entities, mostly in the area of health disparities. The College of Health and Human Services is housed in a new 138,000 square foot $34 million state-of-the-art building which supports its research mission. The College provides faculty and staff with access to specialized research software not supported by the University, including EndNote bibliographic software; MPlus, Stata/SE and SUDAAN quantitative statistical analysis packages; NVivo qualitative analysis software; Stat/Transfer data conversion software; and the Prism scientific graphing package, geographic information systems analysis software, SPSS and SAS statistical analysis packages, and extensive electronic library resources.

**Research Office Space & Laboratories**
Faculty members may use their offices for research/scholarly activities, and have access to additional workspace if needed.

<table>
<thead>
<tr>
<th>College of Health and Human Services Research Office/Laboratory Space</th>
<th>Office Space (sq ft)</th>
<th>Laboratories (sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean's Office</td>
<td>1,502</td>
<td></td>
</tr>
<tr>
<td>Informatics</td>
<td>886</td>
<td>7,659</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>6,396</td>
<td>12,980</td>
</tr>
<tr>
<td>Nursing</td>
<td>4,181</td>
<td>1,732</td>
</tr>
<tr>
<td>Public Health Sciences</td>
<td>4,745</td>
<td>947</td>
</tr>
<tr>
<td>Social Work</td>
<td>2,015</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>19,725</strong></td>
<td><strong>23,318</strong></td>
</tr>
</tbody>
</table>
**Research Support: Office of Research**

The College of Health and Human Services facilitates research through the college Office of Research. This office provides a multifaceted support structure to assist researchers from the inception of an idea through the proposal and then post award. The process begins with concept reviews for initial ideas, mock proposal reviews, and feedback from other researchers at every career stage. Also provided by the office of research are research assistants, paid consultants to review and edit publications and proposals, biostatistical support, and the pre-award and post-award specialists to assist faculty in all aspects of proposal preparation and award processes. There are three full time positions housed in the CHHS Office of Research including a Research Officer (Pre-Award Specialist), two Post-Award Specialist, and a Graduate Research Assistant.

- **Research Officer:** Manages the research business functions related to research funding in the College of Health and Human Services. Consults and assists Principal Investigator in identifying research opportunities; proposal planning; budget development; obtaining and initiating internal processing forms (NORM); assures proposals meet Federal, University, and sponsor guidelines, policies and procedures; identifies and manages data management, conflict of interest, and contracting issues. Reviews and prepares proposal components prior to submission. This position is the first line of contact for research faculty, and is responsible for updates, communication, and unit’s adherence to all mandated (federal, state and private) rules and regulations. This position coordinates all the data use agreements.

- **Post-Award Specialists:** The CHHS Post-Award Administrators facilitate award management, spending, reporting, and closeout. The CHHS Post-Award Administrators work closely with the CHHS Pre-Award Administrator. This close working relationship is crucial to ensure proposals submitted are in compliance with all regulations, as well as ensures a smooth pre and post award experience.

**Research Academies**

The College of Health and Human Services supports and guides research through the activities of six independent research groups – the Academy for Research on Community Health, Engagement, and Services (ARCHES), the Charlotte Academy of Aging Research and Engagement (CAARE), the Academy for Veteran and Military Health (AVMH), the Health Informatics and Outcomes Research Academy (HInORA), the Academy for Population Health Innovation (APHI) and the Research on Women’s Health Interest Group (R-WHIG). The academies provide access to research investigators locally at UNC Charlotte and with University partners throughout the world, providing necessary expertise for conducting interdisciplinary research. The academies provide structures for cross-disciplinary networking among research investigators and community partners, and they serve as incubators for research in high priority areas.

- **ARCHES:** The ARCHES develops and supports impactful research and training partnerships and programs for reducing health disparities among vulnerable populations in high-risk communities. ARCHES incorporates the scientific and social missions of the health sciences. ARCHES faculty are involved in building community-oriented research
capacity locally, nationally, and globally. We conduct community-based research in health disparities, health equity, health services, cancer control, access to care, minority health, care of the uninsured, and several other topic areas.

- **CAARE**: The Charlotte Academy of Aging Research and Engagement’s (CAARE) mission is to expand the knowledge base regarding the promotion of healthy aging through multidisciplinary and collaborative (with Charlotte region) research activities of the College of Health and Human Services.

- **AVMH**: The Academy for Veteran and Military Health is dedicated to improving health and community reintegration of military affiliated populations (veterans, service members, and their families). The academy develops and provides effective instruction, actionable research, and supports services to address the challenges and health disparities facing transitioning service members, veterans, and their families by connecting UNC Charlotte and the community.

- **HInORA**: The Health Informatics & Outcomes Research Academy's mission is to enhance collaboration among investigators from diverse research foci within CHHS, the university, and community partners in order to discover research opportunities, effectively share resources, and seek funding of research that advances the knowledge and skills of the disciplines. This academy promotes data-driven programs that combines various research approaches. Current areas of research include Ankle injuries, Cachexia, COPD, diabetes, Home health care & Asthma and lung cancer.

- **APHI**: The Academy for Population Health Innovation is a novel collaborative between Mecklenburg County Public Health and The University of North Carolina at Charlotte designed to advance the health of our community. The key pillars for APHI include: (i) innovation and research; (ii) education and professional development; and (iii) community engagement. APHI’s core is built around the application of data and best evidence to understand and address community health needs.

- **RWHIG**: R-WHIG is dedicated to the advancement of women’s health using an interdisciplinary approach that promotes the exchange of ideas, collaborations, dissemination of research findings, and mentoring of undergraduate and graduate students interested in women’s health. Researchers interested in women’s health may have different backgrounds, but these differences complement each other when it comes to improving the health of women. At UNC Charlotte, women’s health researchers represent a wide-range of disciplines including Public Health Sciences, Nursing, Social Work, Psychology, Anthropology, Communication Studies, and Sociology. These researchers conduct studies on a number of focus areas, such as pregnancy, contraception, sexual health, breastfeeding, female cancers, intimate partner violence, cardiovascular disease, mental health issues, obesity, and binge eating.

**CHHS Academic Technology Unit**
The University provides each faculty and staff computer with an operating system, virus and spyware detection and removal software, the Microsoft Office Professional productivity package,
internet applications and browser, geographic information systems analysis software, SPSS and SAS statistical analysis packages, and extensive electronic library resources. Site licenses have been purchased to cover all users.

The College of Health and Human Services provides faculty and staff with access to specialized research software not provided by the University, including EndNote bibliographic software; MPlus, Stata/SE and SUDAAN quantitative statistical analysis packages; NVivo and ATLAS.ti qualitative analysis software; Stat/Transfer data conversion software; and the Prism scientific graphing package. Site or simultaneous-user network licenses have been purchased for most software, but for some titles, additional licenses must be purchased for each additional faculty who wishes to use them.

Audio/Visual Recording/Editing Rooms
CHHS 374A, 374B: These sound-proof recording rooms are equipped with high-end, ultra-fast Apple and Windows computers respectively. Each has audio/video capture, recording, editing, and distribution software installed. Instructional uses have included providing student presentations on DVD for instructor and peer review.

Video-Teleconferencing Classroom
CHHS 380: This 105 seat classroom supports our distance education efforts and is equipped with a Polycom video-teleconferencing system capable of placing and receiving synchronous audio/video and content sharing calls anywhere in the world.

Proctor Room
CHHS 380: A bank of six workstations is similarly equipped as the computer laboratory and classrooms to allow the proctoring of computer based tests for individuals.

SMART Classrooms and Conference Rooms
The College of Health and Human Services building has 39 classrooms, 10 conference rooms, 4 skills laboratories, and 1 reception hall that are all outfitted with the campus SMART room standard. This standard includes an LCD projector, DVD/VCR unit, instructor computer, document camera and SMART Technologies Symposium. Installed and maintained by the UNC Charlotte Office of Classroom Support these enhanced venues offer an additional level of interaction and instruction.

Faculty/Staff Technology Workroom
CHHS 365: A more recent addition, this workroom is equipped with both Apple and Windows workstations and will allow faculty to scan documents and images, manipulate these files and print on a large format printer. CD/DVD duplication for distance education and other purposes is also available.

Video-Teleconferencing Portable Units
Adding to our video-teleconferencing resources two portable solutions are available to enable calls from conference rooms and offices across the College. Each unit has dual flat-panel displays for simultaneous audio, video and content sharing.

Gerontology Program
The Gerontology Interdisciplinary program at UNC Charlotte started in 1990 and includes students and faculty from many disciplines. The Gerontology program is sponsored jointly by the College of Health and Human Services and the College of Liberal Arts & Sciences. Current offerings include an undergraduate gerontology minor, a Graduate Certificate in Gerontology
and a Master of Arts in Gerontology. The multidisciplinary nature of the program prepares students and professionals interested in specific careers in the field of Gerontology.

**Health Services Research Doctoral Program**
The Ph.D. program in Health Services Research is designed to prepare students to conduct health services research and/or teach at a university level. The program of study is designed around the interests of the individual, taking previous academic training and professional experience into account. The curriculum emphasizes the following areas: public and private sector health insurance and financing, organizations for the delivery of health care, methodologies for measuring and improving quality and safety of medical care, methods to measure personal and population health status, methods for assessing the impact of government health care policy on individuals and populations, and comparative effectiveness methods for assessing the impact of technology and treatments on patient outcomes. Emphasis in the program is in research methods, statistics, and theoretical and empirical concepts in health services research, policy and management.

**College of Health and Human Services Advising Center:**
The CHHS Advising Center provides comprehensive academic advising from pre-admission to admission into upper division undergraduate majors within the college. Three professional academic advisors provide academic advising to all pre-major and minor students (over 1,700 students), course scheduling, career advisement, brief personal counseling, and referral services. A secondary function of the Advising Center is to provide services that support the college’s teaching mission by tracking student compliance with agency requirements and consolidating aggregate student data for accreditation documents and various reports necessary to fulfill the overall college functions.

- **Director of Student Success and Assessment:** The Director of Student Success and Assessment has the primary responsibility to collaborate with college unit administrators and program directors in meeting SACSCOC accreditation requirements and discipline specific accreditation requirements. Additionally, this position oversees student success initiatives in the college. The Director and the Data Acquisition Specialist prepare annual college wide surveys on advising, student post-graduation information, and the college census data.

**Department of Public Health Sciences**

**About the Department:** The Department of Public Health Sciences was originally founded as the Department of Health Behavior and Administration on July 1, 2002 as part of the transformed College of Health and Human Services. The new Department was conceived in response to recommendations derived from UNC Charlotte's Health Commission report (2000) as well as a variety of initiatives placing emphasis on population health and health behavior research. In May 2007 the Department was renamed to Public Health Sciences to better reflect
the unit’s larger-scale set of current and planned research programs, degree offerings, and service activities that are aligned with the broader public health landscape. The Department of Public Health Services is made up of 16 fulltime faculty that contribute to the day-to-day teaching, research, service, and administrative functions of the unit; and a robust adjunct faculty - including on-campus distinguished professors and off-campus clinic partners - that contribute in multiple ways to the unit's overall success in both teaching and research; and part-time faculty who complement the unit's instructional capacities, including a number of professional practice colleagues with special expertise that serve the health administration degree program.

The Department favors the development and implementation of collaborative academic programs and interdisciplinary scholarship. Faculty in the Department of Public Health Sciences have engaged in research programs funded by the National Institutes of Health, the Centers for Disease Control and Prevention, Kate B. Reynolds Charitable Trust, and other state and private foundations; and publish in leading peer-review journals relevant to contemporary public health. Faculty interests include: chronic disease; community health; gerontology; health care delivery systems; health issues of at-risk populations; health-related measurement, evaluation, and outcomes; maternal and child health; and public health information systems.

**Mission:** The Department of Public Health Sciences at UNC Charlotte engages in research, teaching and service to produce scholars and leaders prepared: to promote and improve human health across the lifespan; to support the optimal organization and management of healthcare locally, nationally, and internationally; and, to deliver efficient, effective, and accessible high quality health services, particularly to vulnerable populations.

**Vision:** The Department of Public Health Sciences at UNC Charlotte is a premier academic unit providing collaborative and integrated approaches to improving health and healthcare. An interdisciplinary, research-focused faculty provides educational experiences for researchers and practitioners that are relevant to contemporary public health. The Department supports an environment that enhances the preparation of competent leaders in community health behavior, healthcare administration and policy, and health services research at the baccalaureate, master’s and doctoral levels for local, national, and international partnerships that enhance students' knowledge of health care issues, and focus on vulnerable populations.

**Current Research and Strengths**
The Public Health Sciences faculty research focuses on health determinants related to the prevention and management of disease and disability among diverse and vulnerable populations. Contemporary public health problems are examined at the individual, community and population levels with a primary focus on addressing health outcomes through community engagement. Faculty research encompasses disparities and social determinants of health across a variety of populations including women, infants, children, elderly and minorities. Public health issues include chronic illness, health promotion behaviors, and factors particularly related to relationships between urban environments and health outcomes. Methodological strength of the faculty includes qualitative analysis, use of large data sets, program evaluation, community health assessment and community-based participatory research.

**Laboratory:** The Department houses a complete human electrophysiology laboratory. The laboratory is comprised of a five-room suite (nearly 950 sq ft) including a recording room and isolated subject room, a pulmonary function testing room, office space for fulltime staff and
research assistants, and a data analysis and storage room. The laboratory is equipped with full analog-to-digital conversion and timing capabilities. Equipment that is available for use includes a 10-channel Grass model 78 polygraph capable of processing physiological signals, an occlusion valve setup, a rolling-seal spirometer (Vacumetrics, model UCI-500), an 8-channel signal processor and signal-averager (Cambridge Electronics Design, model 1401), and full instrumentation for control of eight input/output channels.

**Department of Kinesiology**

**About the Department:** The Department of Kinesiology at the University of North Carolina at Charlotte offers degree programs at the undergraduate and graduate level designed to prepare students in clinical, scientific, and applied disciplines in exercise science, sports medicine, and allied health. Our programs include a B.S. in Exercise Science, M.S. in Kinesiology (consisting of a research-focused Applied Physiology and Neuromechanics Concentration and a Clinical Exercise Physiology concentration, a B.S. in Athletic Training, a B.S. in Respiratory Therapy, a B.S. in Neurodiagnostics and Sleep Science, and our new M.S. in Respiratory Care. The Department also has faculty affiliated with the Interdisciplinary Ph.D. Program in Biology and the Ph.D. Program in Health Services Research. In addition to our degree programs, the Department fulfills its mission by conducting research and disseminating this work in respected journals in exercise science, genomics, sports medicine, respiratory therapy, and sleep science. Externally funded research conducted by our nationally and internationally known scholars utilizes a multidisciplinary and collaborative approach to better understand the physiological effects and genetic influences of physical activity, aging, cardiovascular function, neuromechanical consequences of joint injury, respiratory health, sleep hygiene, and nutrition. The Department of Kinesiology is committed to providing courses and services to the University community and the Charlotte regions that encourage life-long movement, while also advocating and promoting healthy living through physical activity, respiratory health, sleep hygiene, and nutrition.

**Mission:** The mission of the Department of Kinesiology at UNC Charlotte is to engage a variety of populations and communities to advance optimal wellness through scholarly research, teaching, and service.

**Vision:** The vision of the Department of Kinesiology at UNC Charlotte is to be recognized locally, nationally, and internationally for its leadership in promoting optimal health and well-being through lifelong movement, physical activity, care and prevention of injuries, respiratory health, sleep hygiene, and nutrition. This will be accomplished by serving diverse healthy and clinical populations through distinctive academic programs, excellence in scholarly research, and engaging the citizens of our region.

**Laboratories**

- **Systems Physiology Laboratory Current Research and Strengths:** The Laboratory of Systems Physiology in the Department of Kinesiology has dedicated laboratory space of approximately 3760 ft², with an additional 750 ft² for faculty offices and 450 ft² for graduate assistants and post-doctoral offices. The Laboratory of Systems Physiology
houses all the necessary equipment to successfully complete wide range of experiments including cryostatic tissue cross-sectioning, immunofluorescent microscope, western blotting and Real-Time PCR. The laboratory complex also includes wet laboratory space equipped with a range of centrifuges, a water purification system, gel electrophoresis equipment (gel boxes, power supplies etc), Konica Minolta SRX101A Tabletop X-Ray Film Processor and two Thermocyclers. Further, additional laboratory space is used has a ‘clean’ RNA procedure room equipped with a Nanodrop 1000 Spectrophotometer and dedicated cell culture work space equipped with two Heracell and two automatic water-jacket incubators as well as two laminar flow hoods and a portable cell culture aspirator. Tissue samples can be stored in one of the four -80°C freezers and all reagents and consumables used for molecular biology techniques are stored in the three -20°C freezers or four refrigerators as necessary, which are all housed within the laboratory space. The -80°C freezers are connected to circuits with emergency back-up power and are monitored by a Sensaphone 1400. All -20°C freezers and refrigerators are on back-up power. The Laboratory of Systems Physiology also contains an Aurora Scientific 1305A Muscle Test System (for in situ muscle lengthening contractions), a VistaVision Microscope with gooseneck and 150W fiber optic light source, and a treadmill/ metabolic gas analyzer designed for use on small rodents.

- **Exercise Physiology Laboratory:** The Exercise Physiology Laboratory in the Department of Kinesiology occupies approximately 2500 ft² of dedicated space that is fully available for undergraduate and graduate teaching as well as applied research. Specifically, this space supports a teaching classroom portion and a clinical exercise physiology area that contains multiple treadmills, cycle and arm ergometers, metabolic measurement systems, and EKG assessment equipment. It also includes flexibility and strength assessment equipment, pulmonary function testing equipment, body composition assessment equipment (Bod Pod and skinfold assessment, etc.), 5 private examination/assessment rooms, and an associated 500 ft² Emergency Medical Response Classroom.

- **Biodynamics Research Laboratory:** The Biodynamics Research Laboratory (BIODRL) in the Department of Kinesiology occupies approximately 2550 ft² of dedicated space. This space supports a neuromechanical research area and a motion assessment area. The BIODRL is equipped with an 10-camera, 3 dimensional high resolution Vantage V5 motion capture system from Vicon that is interfaced to a Intel Xeon quad core processor PC. This system can fully integrate to our Bertec non-conductive force platforms that can measure 3 translational forces and 3 moments of forces. Furthermore, the BIODRL has a wireless in-shoe plantar pressure system (Novel Inc.) that can measure pressure distributions during functional tasks. The BIODRL also contains a custom-built instrumented ankle arthrometer that is used for assessing joint laxity. In addition to mechanical joint stability, the lab contains a LOGIQ e diagnostic ultrasound machine.
This allows measurement of ligament length and width. The BIODRL also has a Magstim Rapid machine for assessing motor cortex excitability, a Digitimer Ds7a for testing spinal reflex excitability, and an EEG unit for assessing brain waves during movement. The laboratory contains multiple 16-channel biological data acquisition systems (BIOPAC, Inc) complete with many transducers and amplifiers to perform: EMG, kinematic and kinetic analyses, along with multiple triaxial accelerometers. The laboratory also contains a Biodex System 3 exercise dynamometer with all attachments (including back extension and lift simulation attachments). Overall, each of the systems can seamlessly integrate with each other to provide for multidimensional data acquisition capabilities. The data acquisition systems in the BIODRL are supported by multiple PC workstations and the Health Informatics unit in the College of Health and Human Services.

**Athletic Training Clinical Instructional Laboratory:** The Department of Kinesiology also houses an athletic training clinical instructional laboratory, approximately $1570 \text{ ft}^2$ that contains all of the amenities of a modern athletic training room. It contains multiple treatment tables, and various therapeutic exercise equipment used for rehabilitation. There is a separate wet room that contains a full body whirlpool tank and an extremity tank. There is also an ice machine, full size hydrocollator, and a separate changing area for students. The athletic training clinical instructional laboratory contains a full complement of state of the art therapeutic modalities such as: ultrasound, electrical muscle stimulation, ioniophoresis, portable TENS devices, and paraffin wax bath. The laboratory is well equipped with various supplies that are used to treat and care for acute injuries, in addition to containing a state of the art multimedia instructional system designed specially to facilitate the delivery of lectures and presentations that are given in this space.

**Health Risk Assessment Laboratory:** The Health Risk Assessment Laboratory in the Department of Kinesiology occupies approximately $2100 \text{ ft}^2$ of dedicated space for the integration of community engagement, graduate and undergraduate training, and faculty research. The laboratory tests multiple disease risk factors and provides lifestyle advice on how people can reduce their specific health risk(s). On-site resources include a fully equipped physician’s exam room and clinical chemistry lab, along with treadmills, cycle ergometers, metabolic measurement systems, EKG assessment equipment, and bed for resting and stress-test metabolic and EKG analyses. It also includes a Bod Pod, dual-energy X-ray absorptiometry (DXA) machine with subcutaneous vs. visceral adiposity distinction software, MasterScreen Body Plethysmography and Diffusion Pulmonary Function Test System, and crash cart. All resources in the Health Risk Assessment Laboratory are fully available to support faculty research.

**Microarray Facility:** The DNA Microarray Facility of the Charlotte Genomics Consortium consists of an Affymetrix GeneChip Instrument System that includes a Model 640 GeneChip Hybridization Oven, a Model 400 GeneChip Fluidics Station and a Model
3000 GeneArray Large-Format Scanner. These are controlled by a Dell OptiPlex GX1 10 computer running Affymetrix Microarray Suite 5.0 software. The two Total Desktop Mining Solution workstations consist of a Dell OptiPlex GX110 computer running Affymetrix Microarray Suite 5.0, MicroDB 3.0, and Data Mining Tool 3.0 software. One workstation is located in the Cannon Research Center of the Carolinas Medical Center. The other is located in the Department of Biology at the University of North Carolina at Charlotte and is freely accessible to Investigators.

- **Animal Laboratory:** The UNC Charlotte Vivarium is located in the Woodward building and meets or exceeds all PHS regulations. The facility employs three full-time technicians and four part-time technicians that oversee the facility seven days a week. The facility has 24 hour temperature monitoring and alarms to ensure a constant ambient temperature of 65-75°F and 20-60% humidity (depending on season). The rooms used to house mice are of differing sizes depending upon the needs of the Principal Investigator. Additionally, procedure rooms are available for use by the research teams for dissections, recovery surgery, and exercise testing of the animals. The University Vivarium is under the direction of a professional laboratory animal technician who holds AALAS certification. Additional support is provided by a veterinarian who is on call 24 hrs/day 7 days/wk.

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**School of Nursing**

**About the School:** The School of Nursing (SON) was founded in 1965 and has outstanding facilities and resources. All programs within the school are accredited by the Collegiate Commission on Nursing Education (CCNE) through 2021. The Nurse Anesthesia program also is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA) through 2024. All appropriate programs are approved by the North Carolina State Board of Nursing. The School of Nursing offers baccalaureate and masters degrees in nursing and contributes to the Health Services Research Doctoral program. The School established the Doctorate of Nursing Practice (DNP) degree and received CCNE accreditation in 2016, this accreditation is valid till 2021. The School of Nursing consists of 36 full time faculty members, 12 part-time faculty members, and adjunct faculty that contribute to the delivery of our programs.

Faculty in the School of Nursing are engaged in research funded by the National Institutes of Health, American Nurses Foundation, Health Resources and Services Administration (HRSA), Substance Abuse and Mental Health Services Administration (SAMHSA), Charlotte Area Health Education Center (AHEC) and various other funding agencies focusing on symptom management and vulnerable populations. Faculty publish in leading peer-review journals relevant to nursing science and nursing practice.

**Mission:** The School of Nursing prepares a diverse nursing workforce to care for the representative populations of the region. The School generates and disseminates knowledge through research on the life transitions that affect the health outcomes of the individual, family
and community. The School is a leader in its use of information technology to enhance learning and to provide greater student access to both undergraduate and graduate education. Educational programming is culturally competent, relevant and visionary in addressing current and future health care. The School engages in campus-community partnerships that provide research and service-learning opportunities for students and faculty. The School collaborates and partners with other disciplines on campus, other universities and clinical agencies to provide educational programs and service and to conduct research. Faculty and students practice in a variety of clinical settings integrating values-based and evidence-based research into practice.

**Vision:** Excellence in values-based and evidence-based education, research and practice.

**Current Research and Strengths**
The School of Nursing (SON) combines extensive research and clinical expertise, ensuring a focus on highly relevant topics critical to moving the state-of-the-science forward. Founded in 1965, the SON has significant strength in vulnerable populations, health promotion, symptom management and health systems research, including the use of large databases from the Centers for Medicare and Medicaid Services (CMS), informatics, and mobile health. Investigator expertise extends to assistive technology, clinical trials, measurement, quantitative (advanced multivariate analysis, and structural equation modeling) methods, qualitative methods, mixed methods, community-based participatory research, and family and community reintegration. Current studies examine self-management in older adults, safe sex practices in adolescents, mobile phone technology to reduce HIV infection, quality of life in heart failure patients, older adults in long-term care settings and innovative nurse education technologies. Our inclusion of multi-disciplinary clinicians in many of our studies is a particular strength. We have engaged community organizations as part of the SON team—investigators and experts in Cardiovascular care, Health systems and Veterans care from VA Salisbury are actively participating with our School. Our depth in other professionals (e.g., Nurse Practitioners, Community Health Nurse Specialists, and Doctors of Nursing Practice) further strengthens the clinical relevance of our research. For more information, see [http://nursing.uncc.edu/](http://nursing.uncc.edu/).

**Clinical:** A variety of agencies are used for clinical experiences throughout the Charlotte metropolitan region. These agencies include large medical centers, community hospitals, schools, and various public health and community health clinics and agencies. Undergraduate students receive broad based experiences that reflect generalist nursing practice and have exposure to the diversity that makes up the Charlotte region. Graduate students have experiences in a variety of advanced practice clinical resources throughout the region. More than 300 area health experts volunteer their time as community-based preceptors for undergraduate and graduate students at the School of Nursing.

**Laboratories**

- **Skills Laboratory:** The Skills Laboratory is a seven bed laboratory dedicated to the acquisition of psychomotor skills for the undergraduate or graduate nurse. The laboratory’s facilities include 7 hospital beds, nightstands and over bed tables, two large group tables, two scrub sinks, and a full working patient bathroom. Each laboratory room is equipped with SMART room standard technology podium including LCD
projectors, DVD/VCR unit, instructor computer, document camera and SMART Technologies Sympodium, with full access to the university’s Novell system and network printer.

**Clinical Simulation Laboratory:** The Clinical Simulation Laboratory is a three bed laboratory dedicated to simulation technology. These facilities include Laerdal SimMan, Laerdal SimBaby, and a Noelle Birthing mannequin. The laboratory is equipped with CathSim virtual reality systems that are available to support student learning related to IV initiation and phlebotomy. Each laboratory room is equipped with SMART room standard technology podium including LCD projectors, a DVD/VCR unit, instructor computer, document camera and SMART Technologies Sympodium with full access to the university’s Novell system and network printer.

**Examination Rooms:** There are three examination rooms to simulate a nurse practitioner’s office or medical office. Each room contains an examination table, sink, counter space, and wall mounted otoscope and opthalmoscope.

**Health Assessment Laboratory:** The Health Assessment Laboratory is an eight examination table facility dedicated to the acquisition of skills required for health assessment at the graduate and undergraduate level. A variety of skeletons, static manikins and models are available for student instruction. The laboratory is equipped with wall mounted otoscopes and ophthalmoscopes available at each bedside.

**Resource Laboratory:** The Resource Laboratory is a classroom or small group work area for individualized tutoring or small group work. The laboratory is equipped with SMART room standard technology podium including LCD projectors, DVD/VCR unit, instructor computer, document camera and SMART Technologies Sympodium with full access to the university’s Novell system and network printer.

**Marilyn Greene Smith Living Learning Laboratory:** Designed and furnished like an apartment, this laboratory includes a living area, kitchen, bedroom and bathroom. Students gain skill in the delivery of care to clients in home and community settings.

**Ann Mabe and William G. Newman Interaction Laboratories:** The Newman Interaction Laboratories includes a pediatric interview room, an adult interview room and two observation rooms. These rooms allow faculty to participate in counseling/interviewing connected with classes, or to observe subjects for research
projects; subjects are unaware of the presence of observers. Principle AV equipment in the interview rooms consists of a ceiling-mounted camera and a ceiling-hung Audio-Technical undirectional microphone. Other equipment used in interview/observation rooms includes TV monitors and VCRs for recording/playback of sessions as well as a podium microphone, combination CD/cassette recorder, and monitor amplifiers. In addition, a camera controller, video switcher and matrix switcher are in the signal chain. The rooms are soundproof and well equipped with comfortable furniture. The rooms have the following dimensions; room 323 (190 sq ft), room 324 (248 sq ft), room 325 (248 sq ft), room 326 (190 sq ft).

School of Social Work

About the School: In 1989, the undergraduate program in social work (BSW) was established in the Department of Sociology, Anthropology and Social Work in the College of Arts and Sciences. In 2000, the Department of Social Work was created as a separate academic unit and the master’s degree program in Social Work (MSW) was established. In July of 2002, the Department of Social Work was moved from the College of Arts and Sciences to the College of Health and Human Services. In May of 2006, an Advanced Standing MSW program was established. In March of 2015, the Department transitioned from the Department of Social Work into the new School of Social Work. The School consists of 18 full-time faculty members and is complemented by part-time faculty members from the community and supported by two full-time academic staff members. The school utilizes over 100 field instructors and placement sites in a year.

Mission: The mission of the School of Social Work at the University of North Carolina at Charlotte is to prepare competent social workers and promote community well-being and social justice through teaching, scholarship, and service with special attention to vulnerable populations.

Vision: This mission is pursued with attention to the region’s most vulnerable populations and with a commitment to, and vision of, a just and caring society, free of prejudice and oppression.

Current Research and Strengths
The School of Social Work advance programs of research and scholarship that expand the frontiers of knowledge, including those that solve problems at the interface of disciplines and leverage discovery for the public benefit: The faculty include two Hartford Geriatric Social Work Scholars and a recipient of a long-term grant from the Centers for Disease Control, Minority AIDS Research Initiative Program. Current research examines issues surrounding homelessness, coping strategies for older adults with mental illness, healing of survivors of violence, risk and protective factors of adolescents, and early childhood psychotherapy.

The faculty of the Department of Social Work actively involves community programs and professionals in seeking and systematically researching problems of the region’s vulnerable
populations in order to promote their health and well-being and work towards a just and caring society.

**UNC CHARLOTTE FACILITIES AND RESOURCES**

UNC Charlotte is North Carolina's urban research institution. It leverages its location in the state’s largest city to offer internationally competitive programs of research and creative activity, exemplary undergraduate, graduate, and professional programs, and a focused set of community engagement initiatives. Located in the state's largest metropolitan area, UNC Charlotte is among the fastest growing universities in the UNC system with more than 28,000 students and a 1,000-acre campus. The University has seven colleges: The Belk College of Business, The College of Arts and Architecture, The College of Computing and Informatics, The College of Education, The Lee College of Engineering, The College of Health and Human Services and The College of Liberal Arts and Sciences. UNC Charlotte offers 92 bachelor’s degree programs, 59 master’s degree programs and 19 doctoral degree programs, and is classified by the Carnegie Foundation as a Community Engagement Institution.

**UNC Charlotte Student Statistics**

There are currently 22,732 undergraduate students and 5,251 graduate students that attend UNC Charlotte; 48% are women and 52% are men. Roughly 40% of the student body are considered a racial minority (American Indian, Asian, African American/Black, Hispanic, Pacific Islander, and two or more races). 92% of the students are from North Carolina and 41% of students are considered low income. This impacts the type of urban research focusing on underserved populations in Charlotte and Mecklenburg County that UNC Charlotte is known for.

**Research & Economic Development**

Research and Economic Development (RED) is the central office at UNC Charlotte. RED strives to advance the quality, diversity and growth of research at UNC Charlotte by providing a sustaining environment where research, creative, and service activities will flourish. RED meets this commitment through the various services provided by the different offices as listed below.

**Center for Research Excellence (CRE):** The Center for Research Excellence (CRE) serves faculty by developing research ideas, locating and evaluating funding sources, identifying collaborators, planning proposals and budget strategies, developing budgets, reviewing and editing proposal drafts, and training by hosting workshops and seminars.

**Office of Research Services and Outreach (ORSO):** The Office of Research Services and Outreach is the central administrative office for managing proposal submissions and outreach.

**Office of Research Compliance (ORC):** The mission of the Office of Research Compliance is to ensure compliance with federal, state, and local laws and regulations as well as University policies by partnering with the University of North Carolina at Charlotte research community in support of ethical research practices. The ORC promotes ethical research practices by providing education, training and resources to faculty, staff, researchers and students. The ORC oversees several research and research-related areas including human subjects research (IRB), the care and use of laboratory animals (IACUC), the use of biological agents (IBC), export controls, and conflicts of interest.
Lab Animal Resources: UNC Charlotte’s laboratory animal veterinarians and technical staff provide primary and veterinary care to all animals housed, as well as investigator training, technical assistance and guidance, and access to health status, laboratory, and imaging services. Our goal is the maintenance of an enriched, variable-free, secure, and humane environment for our animal subjects, as well as superb customer service for our research clients.

Conflict of Interest (COI): The Conflict of Interest Manager works with faculty and staff to identify potential conflicts of interest and conflicts of commitment; and to ensure compliance with Federal, State, and university-wide regulations and policies.

Office of Grants and Contracts Administration (GCA): The Office of Grants and Contracts Administration provides transactional support to college-based post-award staff and is responsible for overall sponsored program financial reporting and compliance. GCA also handles contract negotiation and issues sub-awards to other participating institutions.

Office of Research Commercialization and Development (ORCD): The Research Commercialization and Development identifies, protects, and commercializes university research and intellectual property. ORCD works closely with faculty, students, and staff to help bring new technology and innovation to market and assists with the invention and patent process, confidentiality and non-disclosure agreements, and material transfer agreements.

Library Services
The J. Murrey Atkins Library aspires to imagine and realize the full potential of a 21st century research library. As the intellectual and physical commons of a great urban University, the Library facilitates the growth of knowledge. The Library anticipates and meets the information needs of its diverse communities, at any time and in any place. Atkins is the largest academic library in the southern piedmont and is a member of the Association of Southeastern Research Libraries. It houses nearly 2 million volumes and has access to over 55,000 electronic journals, and about 500,000 electronic books. Atkins offers approximately 500 databases (most in full text) in an A-Z List on the library’s homepage. Available health science-databases include CINAHL, PubMed, EBSCO’s Health Source (Academic and Consumer editions), ScienceDirect, Springer Link, and databases for specific departments such as Social Work (Social Work Abstracts and Social Services Abstracts) and Kinesiology (SPORTDiscus).

For more information about J. Murrey Atkins Library, visit http://library.uncc.edu/.

Book and Article Delivery
Atkins offers multiple services to provide faculty members with the materials that they need for their research. The library will deliver books from its collection to faculty offices via campus mail. Library staff will scan articles and book chapters from journals and books from the Atkins Library collection and send them electronically. Faculty can also request materials from other libraries through Interlibrary Loan. For more information about these services, visit library.uncc.edu/borrowrequest.

Library Research Assistance
J. Murrey Atkins Library provides support for teaching and research through a variety of programs. Subject librarians are available in-person, online, and by phone for consultation on how to find and use the best information for research projects and academic assignments. They
also offer instructional sessions about library research and resources, help with links and resources to supplement your Moodle content, and can create course-specific resource web pages. Subject librarians provide assistance to faculty members in their own research endeavors and also serve as a link to collection development for academic programs. For a list of librarians by subject, go to library.uncc.edu/research.

**Digital Scholarship Lab**
Atkins’ Digital Scholarship Lab (DSL) partners with faculty and graduate students in the use of digital and networked research tools to create, disseminate, and store new knowledge. The DSL can support the research process and projects through advising, digital tools, and a set of services:

**Data Support & Management:** DSL assists faculty and graduate students with locating and accessing numeric, geospatial, and statistical data, and with managing and preparing those data for analysis. It also provides data management support, including curation and archiving research data.

**Digitization & Digital Imaging:** DSL staff members consult with UNC Charlotte faculty and graduate students on imaging standards and best practices and provide instruction and guidance on digital concepts, digital production, project management, and ongoing preservation of digital scholarship.

**Publication:** The DSL supports the publication of scholarly journals online and assists journal editors with the management and production of their work. It also offers journal hosting support services for the publication of online scholarly collections and exhibitions. Atkins can assist with the dissemination of the scholarly output of faculty and students at UNC Charlotte through its repository.

**Usability:** Expertise, equipment, and software to design and conduct usability testing are available in the DSL. Usability testing allows researchers to study how users respond to web and digital (including mobile) interfaces in order to determine how well online or digital content may be meeting the needs of users.

For more information about the Digital Scholarship Lab, visit dsl.uncc.edu.

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**UNC Charlotte Research Entities & Partners**

**Data Science Initiative**
Data science combines aspects of computer science, modeling, applied mathematics and statistics. In an era of “Big Data,” organizations in both the business and public spheres are experiencing a deluge of data. With the rapid growth of data sets in size, scope, and number comes almost unlimited potential.

The Data Science Initiative brings academia and industry together to turn data into knowledge, and knowledge into insight to see what’s possible in the new digital age. The initiative holds the promise of creating drugs customized for individual patients, developing models for “predictive policing,” and leading remedies for longstanding city planning challenges. Think about the
unlimited possibilities to drive organizational performance. Think about the infinite potential of the “smart city.” Think DSI.

The Data Science Initiative (DSI) at UNC Charlotte is an industry-university-state partnership, led by the College of Computing and Informatics, the Belk College of Business, the College of Health and Human Services, the College of Liberal Arts and Sciences, and Executive Education, and includes collaborative partners in other academic departments.

**Project Mosaic**

UNC Charlotte established Project Mosaic, an initiative led by Knight Foundation Distinguished Professor Jean-Claude Thill to enhance the University’s social and behavioral science research. The divisions of Academic Affairs and Research and Economic Development fund the campus-wide effort, which is housed in the College of Liberal Arts & Sciences.

The mission of Project Mosaic is to enhance social and behavioral science research at UNC Charlotte. Project Mosaic provides an intellectual collaborative community that connects social science researchers with a broader community of scholars. It also fosters the creation of interdisciplinary research teams in social and behavioral sciences. Project Mosaic provides research support to investigators in the areas of collaborative planning, development and design of research projects, research design, and analysis.

Project Mosaic recognizes that one of the most potent ways of engaging in interdisciplinary research is bringing a greater appreciation to the common language of scientific discovery – Data Analytics and Research Methods. Through the services provided by Project Mosaic, the campus community gains support and access to a broader pool of research methods and data analytics. Learn more about the services available to you through Project Mosaic.

**Urban Institute**

The Urban Institute is a nonpartisan, applied research and community outreach center at UNC Charlotte. Founded in 1969, it provides services including technical assistance and training in operations and data management; public opinion surveys; and research and analysis around economic, environmental, and social issues affecting the Charlotte region. The institute is part of UNC Charlotte’s Metropolitan Studies and Extended Academic Programs, which includes a number of the university’s community engagement initiatives.

- **Institute for Social Capital:** The Institute for Social Capital supports and integrates UNC Charlotte social and human capital research and to increase the community’s capacity for data-based planning and evaluation. Through collaboration with nonprofit organizations, governmental agencies, and other relevant organizations in Charlotte and Mecklenburg County, the ISC has combined key sources of data into one community database. The Institute is a gathering place for researchers across UNC Charlotte interested in improving all aspects of community wellbeing.

- **Center for Transportation Policy Studies:** The Center for Transportation Policy Studies (CTPS) is dedicated to the study of transportation-related issues and policy. The
Center conducts research that results in efficient investments and sound decisions for multimodal transportation systems and services.

- **Charlotte Mecklenburg Annual Survey:** The Annual Survey is a public opinion survey of Mecklenburg County residents. Conducted for nearly 30 years, it collects high-quality data while clients share the cost of survey research. This lets many local agencies and groups obtain valuable information on topics of their choice.

- **Charlotte Regional Indicators Project:** The Charlotte Regional Indicators Project tracks and assesses key indicators of quality of life for the 14-county, two-state region around Charlotte. The project provides objective, reliable, and relevant data measuring the region’s progress on a wide range of social, economic, and environmental indicators.

- **PlanCharlotte.org:** PlanCharlotte.org offers residents and policymakers a look at problems and solutions in land use planning, neighborhood and urban design, environmental protection, transportation and other urban and regional issues. Through articles, analysis, mapping and other research, PlanCharlotte.org helps citizens make sound decisions.

- **Transportation Information Management System (TIMS):** The Transportation Information Management System (TIMS) provides N.C. public school systems a key resource for routing and scheduling buses. It is a collaboration among the UNC Charlotte Urban Institute, the North Carolina Department of Public Instruction (NCDPI) and the Institute for Transportation Research and Education (ITRE) at North Carolina State University.

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**The Center for Applied Geographic Information Science (CAGIS)**

CAGIS is an interdisciplinary research center that focuses on using advanced space-time theories, methods, and technologies in cutting-edge Geographic Information Science for complex geographical problem-solving. Based on the synergistic coupling of spatiotemporal and computational thinking, major research themes of CAGIS consist of:

- CyberGIS for large-scale geographical problem-solving
- Land use/cover change and sustainability study
- Complexity theory and geospatial modeling
- Big data and space-time analytics
- Remote sensing, sensor networks, and volunteered geographic information
- Computational intelligence for geocomputational modeling
- Cartography and geovisualization driven by Internet
- Open-source GIS software

CAGIS has unique strength in these cutting-edge research themes and has intensive interest in their applications in alternative spatially integrated domains, including: Environmental studies, Ecology, Earth science, Health, Hydrology, Spatial epidemiology, Social science, Transportation, Urban regional analysis and policies
Office of Industry and Government Partnerships (OIGP)
The Office of Industry and Government Partnerships is the portal for business-university partnerships at UNC Charlotte. Regionally, OIGP works with the community and the campus to accelerate technology commercialization, and champions the growth of entrepreneurial ventures. Globally, OIGP develops intellectual capital through collaborations with industry, government and academia. In 2011, the Office was recognized with an honorable mention award for the first annual Przirembel Prize which recognizes collaborations of diverse organizations in the Southeastern United States. OIGP’s research centers consist of people and facilities that are thematically aggregated to address complex problems in an interdisciplinary fashion.

Diversity Initiatives
The University of North Carolina at Charlotte is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, sexual orientation, age, or disability. In keeping with this commitment, UNC Charlotte actively seeks to promote diversity in its educational environment through its recruitment, enrollment, and hiring practices.

- **Chancellor’s Diversity Challenge Fund:** The Chancellor, through the Council on University Community (CUC), has created the Chancellor’s Diversity Challenge Fund. The purpose of the fund is to support faculty, staff, and student initiatives promoting the daily value of diversity in the intellectual life of the campus. Proposals may include educational activities that promote understanding of diversity; projects that enhance the campus climate for diversity, and foster a culture of inclusion and respect; and efforts to promote diversity through relationships with the Charlotte community. Awards may be up to $5,000.

- **Multicultural Postdoctoral Fellowship Program:** In light of UNC Charlotte’s commitment to diversity, inclusion and building a strong intellectual community of scholars from different backgrounds, we are recruiting for (a) competitive postdoctoral research fellow(s) in STEM disciplines for a period of two years. The purpose of the MPFP is to support the early development of scholars who show promise of distinguished research careers and who are from historically underrepresented groups.

Charlotte & Mecklenburg County
UNC Charlotte, specifically the College of Health and Human Services, partners closely with the urban Charlotte population and with Mecklenburg county as a whole to improve the quality of life and access to healthcare in our community. The current population estimate for Mecklenburg County is 1,034,070, with 59% of the population being white, 33% African American/Black, 5.7% Asian, and 2.3% identifying as other. It is currently estimated that 15.2% of Charlotte residents are living in poverty and that 14.9% of people under age 65 do not have health insurance. One of UNC Charlotte’s core values is community engagement, so as the region’s premiere urban research university, we take seriously our economic, environmental and cultural impact. Our alumni, faculty, staff and students contribute to the betterment of the region and our world every day. UNC Charlotte and CHHHS are committed to advancing research and outreach that improve the health and well-being of our community.
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