CHARLES DREW UNIVERSITY OF MEDICINE AND SCIENCE

Pioneering in Health and Education

UNIVERSITY CATALOG 2007 - 2009

Charles Drew University of Medicine and Science

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Los Angeles, CA 90059

2007 - 2009 Catalog

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Charles R. Drew, MD (1904 - 1950)
A Life Committed to Excellence

The University is named in honor of a most distinguished African American surgeon whose research and groundbreaking accomplishments in the collection and storage of blood plasma became the foundation and model for today's system of blood donation and preservation.

Charles Richard Drew's life was characterized by a strong commitment to excellence. He won a scholarship to Amherst College, Massachusetts, after attending Dunbar High School in Washington, D.C., where he had been voted most popular boy, and best all-round athlete in his senior year. At Amherst, he excelled in athletics, winning the Pentathlon trophy all four years, and the Mossman trophy for the athlete bringing greatest honor to the school.

Charles R. Drew was an athletic coach and biology teacher at Morgan College, Baltimore, before going on to medical school at McGill University in Canada, where he graduated with his Doctor of Medicine and Master of Surgery degrees in 1933. He was an Alpha Omega Alpha scholar at McGill, and winner of the J. Francis Williams Fellowship in Medicine, awarded on the basis of a competitive examination given annually to the top five students in the graduating class.

Dr. Drew returned to Washington D.C. to do a residency in surgery at Freedmen's Hospital (later Howard University Medical Center). A Rockefeller Foundation Fellowship took him to Columbia-Presbyterian Medical Center, where his exhaustive research provided the background for his doctoral thesis: Banked Blood: A Study in Blood Preservation. He was the first African American to earn the postgraduate Doctor of Science in Medicine (M.D. Sc.) degree.

At the outbreak of World War II, Charles R. Drew provided crucial assistance to the war effort in Britain by developing and directing a successful blood collection and storage project in response to a request from his former McGill professor, Dr. John Beattie. The "Blood for Britain" program was an organization of several hospitals involved in uniform procedures of recruiting donors, collecting blood, and processing and supplying plasma to the British Red Cross. Thousands of lives were saved on the battlefield through the new storage techniques, and Charles R. Drew was subsequently appointed Director of the first American Red Cross blood bank, establishing an effective program for the U.S. Armed Forces. He later resigned the post to protest the military's practice of maintaining segregated blood banks.

Charles Drew returned to Howard in 1941 to head the department of Surgery, and in 1944 became chief of staff at Freedmen's Hospital. That year, he was awarded the SPINGARN medal by the NAACP for his "outstanding work in blood plasma." Charles R. Drew's pioneering work had earned him several honorary degrees and appointments on national scientific committees. On his way to a scientific meeting in Tuskegee in 1950, Charles Drew died in an automobile accident from severe injuries sustained at the wheel of his car.

Dr. Charles Drew left behind a wife, four children, and a legacy of deep compassion and devotion to excellence and civil liberties for all.

A Message from the President

Dear Colleagues - Faculty and Staff of Charles Drew University,

Welcome to the Charles Drew University of Medicine and Science. I invite you to explore this catalog and learn more about our unique history, how we serve our local, national and international communities through quality teaching, research and clinical practice, and our programs and practices. The faculty, staff, alumni, friends and successive Boards of Trustees over the university's first 40 years have inspired us and laid the foundation for a bold and timely expansion of our programs and facilities. Our future holds almost unlimited opportunity to have a lasting impact on reducing health disparities here in South Los Angeles and around the world.

The Charles Drew University is proudly and determinedly a multicultural institution serving diverse communities. We are perhaps most proud of the fact that decades after graduating as Charles Drew University physicians or other health professionals, the great majority of our alumni are still dedicated to providing quality and compassionate service to people who can't pay for health care or who would otherwise be neglected by our health care system.

At Charles Drew University of Medicine and Science, we live out our mission. We celebrate diversity of gender, color, race, ethnicity, age – and also diversity of opinion and ideas. Our mission compels us to reach out to underserved populations with the latest clinical practice techniques, applied research findings with dedication, kindness, patience and caring. We also prepare healthcare professionals today to become the leaders in their fields tomorrow.

Join us as we pursue a future filled with stimulating challenges and outstanding opportunities. Feel free to contact me at president@cdrewu.edu with ideas about how we can better serve you, improve this catalog and our website and deliver on our mission.

Susan Kelly, PhD, FAPS
President and CEO

General Information

The University Mission

The mission of the Charles Drew University of Medicine and Science is:

To conduct education, research and clinical services in the context of community engagement to train health professionals who promote wellness, provide care with excellence and compassion, and transform the health of underserved populations.

History of the University

The Charles R. Drew University of Medicine and Science (The Charles Drew University) is a private nonprofit, nonsectarian, minority-serving medical and health science institution established in 1966. Its mission is to help society's poorest communities, starting with its home in Watts section of South Los Angeles. The university (then a "postgraduate medical school") was conceived during planning discussions in 1963, but real progress to establish the university was not made until the governor's McCone Commission cited poor health status and diminished access to healthcare among the major factors fomenting the 1965 civil unrest in Watts. The Charles Drew University, which continues to serve as the only academic health sciences center for the area's 1.5 million people, is the only designated minority-serving health sciences university in a county of more than 10 million people, 70 percent of whom are from minority communities. Defined as a Minority Serving Institution by the Office of Civil Rights, the university's College of Medicine (COM) is recognized by the Department of Education under subsection (a), Title III B Section 326 as a Historically Black Graduate Institution (HBGI). The university is a charter member of the Hispanic Serving Health Professions Schools, a national nonprofit dedicated to improving the health of Hispanic people through research initiatives, training opportunities, and academic development. The Charles Drew University first received WASC accreditation in 1995. In its over 35 years of enrolling students, the university has made enormous contributions to health care in the nation by graduating over 400 physicians, 2000 physician assistants, 2500 physician specialists, and numerous other health professionals—almost all from diverse communities who went on to serve underserved communities.

The University Today

As of 2003, the Charles Drew University has produced 4,599 graduates—awarding 415 M.D. degrees, 1,890 Associate and Bachelor degrees, and Certificates in 15 allied health disciplines; and 2,294 postgraduate degrees in 15 disciplines.

Over the past two decades, Charles Drew has continued to follow the pattern of growth envisioned in its master plan. The campus has been enriched through the construction of a modern biomedical research center and a mental health facility. Resources of the University include the LRC, the Center for Community and Preventive Medicine and the International Health Institute. The University is also actively involved in approximately 30 community programs addressing such key healthcare issues as teenage pregnancy, AIDS, cancer, family planning and alcoholism.

The University has introduced a "pipeline continuum" designed to expose young people to real-life experiences and role models that stimulate their interest in healthcare professions. A central feature of this continuum is the affiliation with the Los Angeles Unified School District through the King-Drew Medical Magnet High School on the University's campus. The High School now has an enrollment of 1,000 students. The University is also affiliated with 23 Head Start centers that serve 1,774 preschool children annually.

In recognition of the historical background of the King/Drew Medical Center, Congress designated Charles Drew University as a "historically black graduate institution" in 1987. Thus, Charles Drew University was recognized as the only health sciences institution West of the Mississippi focused on service to medically underserved, economically disadvantaged and minority communities.

Charles Drew University maintains an academic focus that emphasizes a primary care approach to both health care and community relations. Guided by its mission, Charles Drew continues to promote community-based programs in the context of a collaborative model for teaching, research and service.

Diversity as a University Goal

The University promotes and encourages cultural diversity in its faculty, staff and student body, as well as in its academic programs. The evolution of the University demonstrates its unique ability to cre-ate and carry out educational methods that accommo-date a variety of learning styles. As a result of the demographic changes in the underserved communi-ties, the range of knowledge and skills necessary to provide effective healthcare services to these commu-nities has increased enormously. The challenge for the University has been to increase awareness and to recruit, educate and retain a diverse student body. Consequently, the University has implemented strong academic programs to meet the increasing and changing educational needs of current and potential students.

The University believes that knowledge and compassion are essential for success in a multicultural institution. Therefore, development of a curriculum that includes courses focusing on multicultural issues affords an educational opportunity for our students to learn about themselves as well as about other groups and cultures. This approach to education enables our students to better appreciate themselves and the differences and commonalities of other groups and cultures.

The University seeks to respond to the future needs of a diverse student body and changing community by identifying and committing specific resources to preparation, recruitment, and retention of interested students.

Accreditation Approval Status

The Charles Drew University of Medicine and Science was accredited on June 22, 1995 by the Accrediting Commission of Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC).

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The University is approved by the State of California Council for Private Postsecondary and Vocational Education to grant a Doctor of Medicine degree in cooperation with the Board of Regents of the University of California.

The Liaison Committee on Medical Education (LCME) accredits the Drew/UCLA Medical Education Program through the UCLA School of Medicine.

The Accreditation Council for Graduate Medical Education, in collaboration with the Regency Review Committee, grants full approval of each residency training program based upon survey site visits.

The College of Science and Health programs are accredited by the following agencies:

- American College of Nurse-Midwives
- Commission on Accreditation of Allied Health Education Programs in collaboration with the:
  - American Health Information Management Association (AHIMA)
  - American Association of Medical Assistants (AAMA)
  - Accreditation Review Committee on Education for the Physician Assistant, Inc. (ARCPA)
- Joint Review Committee on Education in Radiologic Technology
- Commission on Alcohol and Drug Counseling Education Program
- American Society of Health System Pharmacists

The Alumni Association

The Charles Drew University of Medicine and Science National Alumni Association was officially approved by the University's Board of Directors in 1992. Open to graduates, students and faculty of the University, the alumni association exists to provide an avenue through which the University can continue to communicate with and serve its alumni, as well as a mechanism through which alumni may communicate with and serve the University. This joint partnership ensures the development and ongoing enhancement of the University's Alumni Affairs.

Learning Resources and Academic Support Program

A number of campus facilities support students in their ongoing learning activities, researchers in the pursuit of new knowledge, and faculty in the development of innovative, enriching course offerings. Linked under the banner, "Learning Resources," these units include the CDU Health Sciences Library, the University Learning Resources Center, the College of Science and Health's Student Education and Services Center, and the Faculty Research and Curriculum Development Center. A description of each facility follows.

CDU Health Sciences Library

A Health Sciences Library is located on the first floor of the W. Montague Cobb Medical Education Building is 6,400-square-foot information and study center. The library maintains a comprehensive collection of materials in the health sciences, including journals, books, non-print media, and electronic resources for use by university and hospital faculty, staff, and students. In order to provide those items not owned by the library, a strong network of reciprocal services has been established with other institutions.

Mission Statement

The library is the primary information resource for the University and the Martin Luther King, Jr.-Harbor Hospital and supports faculty, staff, and students by providing materials, assistance in the use of these materials, and an environment that facilitates teaching and learning.

Our mission is carried out through the careful selection, organization, and availability of books, journals, non-print media, and electronic resources and by making these resources readily accessible and understandable to our end users by provision of ongoing training in their use. Further, the library is charged with the constant reevaluation of its holdings and services to ensure that it meets the needs of its clientele.

History

The Health Sciences Library had its inception in the Charles Drew Postgraduate Medical School's Department of Community Medicine in February 1970. Responsibility for development of the library was transferred to the predecessor of today's county hospital, Los Angeles County Martin Luther King, Jr., Hospital in August 1971, where it remained until December 1984.

The present library is a merger of three libraries: the Martin Luther King, Jr., Hospital Library (established in 1972), the Augustus F. Hawkins Mental Health Library (established in 1981), and the Charles Drew Interim Library (established in 1983). The staff of the CDU Health Sciences Library is also a combination of MLK-Harbor and Charles Drew personnel and is comprised of four professional medical librarians holding master's degrees or higher and nine support staff.

The Collection

The CDU Health Sciences Library contains more than 15,000 books and more than 48,000 bound journal volumes. The library currently subscribes to 731 journals. The scope of the library's coverage ranges from the basic preclinical sciences to medicine and related subjects. The preclinical subject areas include anatomy, physiology, biochemistry, pharmacology, bacteriology, immunology, parasitology, and pathology. Medical topics include the practice of medicine and the medical profession, infectious disease, the body systems, and medical specialties, such as anesthesiology, emergency medicine, family medi-cine, obstetrics and gynecology, pediatrics, psychiatry, radiology, surgery, and related subspecialties. The collection undergirds all areas of training that are conducted at the university as well as patient care at the hospital, and includes sections on nursing, social work, hospital and medical administration, and nutrition. The library also houses substantial basic medical reference tools and a cross-section of materials for specific programs and departments.

Services

Reference Services: A reference librarian is available from 8 a.m. to 5 p.m. on weekdays. The reference desk is located in the main reading room.

Literature Searches: The librarians will consult with users to help locate needed information in the medical literature. Results from a librarian-mediated search will usually be available within 72 hours.

The Library's Web pages: An Internet Web site developed by the library to provide 24-7 access to medical information. The library's Web pages host a variety of bibliographic databases, such as Ovid's Medline, CINAHL, and Psych Info. The website also provides access to more than 2,500 full-text online health sciences journals; 100 medical reference books; more than 3,000 patient education handouts in English and Spanish; and clinical decision support tools, including Evidence Based Medicine databases. Resources on the library's Web site are available automatically on the university campus.

Users at the hospital and remote users must use the library's proxy server in order to gain full access to the library's Web site. Instructions on how to access the library's proxy server are available to registered library borrowers at the library circulation desk. The library Web site is located at the following URL: http://kdhsl.cdrewu.edu.

Instruction: Librarians provide ongoing group and individual orientations to the library and guidance in the use of its resources. Working closely with faculty, they can provide specially tailored classes on the use of the library's resources in specific subject areas. Classes are available in accessing information in the physical library as well as on its Internet site. Internet searching classes and database searching classes are also available.

Interlibrary Loan: The library will obtain books and copies of articles from other libraries as needed for registered users. A request form must be filled out for each item. Please allow two to three weeks for delivery except in clinical emergencies. Users must check the KDHSL print and online holdings before submitting a request.

Public Computers: Twelve public computers feature the Microsoft Office suite of productivity software, EndNote citation management software, and access to the library's electronic resources through high-speed Internet connectivity. Printing is available at 10 cents per page via a copy card. Other computers in the library are dedicated to specific uses, such as the online catalog and a scan-ner.

Audio/Visual Collections: The library has an extensive collection of audiovisual materials, including slide sets, videocassettes, CD-ROMs, audiotapes, and DVDs. These materials are listed in our catalog. Equipment to view these media is available in the library.

Presentation Equipment: A number of laptop computers, digital and video cameras, slide, overhead and LCD projectors are available for checkout to registered borrowers. To be sure that one of these systems is available, a reservation should be made with the circulation desk.

Connectivity: A number of study carrels are equipped with ports for electrical power and connectivity to the university's network, including Internet access. The library is also equipped for wireless Internet access for those users who have laptops with wireless capability. An infrared syncing PDA station is also available. The library's proxy server provides seamless access to our electronic resources on the library's Web site for those users not on the university campus network.

Conference Room: The library houses a conference room that is available by reservation through the Charles Drew University Room Scheduler. Call (323) 563-4902 to make a reservation.

Newsletter: The library also publishes an e-mail newsletter that includes new book reviews, library news, and a list of recent acquisitions.

Patrons
The medical center library extends borrowing privileges to the students in the College of Medicine and the College of Science and Health, faculty, administration, and staff of both Charles Drew University and the MLK-Harbor Hospital. In addition, it is a resource for healthcare providers in the community, high school and college students, and any community resident who may have need of its special materials.

Honor System
All books and journals checked out from the library are given a due date. Patrons not returning materials by the due date are subject to a three-week suspension of all library privileges. The library works with a collection agency to retrieve items and charges from long-term delinquent borrowers.

Renewals
For each item checked out from the library, patrons are permitted one renewal, either in person or by telephone, on or before the due date. To renew materials by telephone, please call (323) 563-4869.

Circulation
Books (limit: 4) for 14 days
Bound Journals (limit: 4) for 7 days
Unbound Journals over 2 years old (limit: 2) for 7 days
Video (limit: 2) and Audio Tapes (limit: 4) for 7 days

Hours

Monday-Thursday	8:00 a.m.-9:00 p.m.
Friday	8:00 a.m.-7:00 p.m.
Saturday-Sunday	11:00 a.m.-4:45 p.m.

The Learning Resource Center also provides remote resource access and support directly to residency program resource centers in the King/Drew Medical Center.

The LRC computers have a variety of medical education software, including basic science tutorials, case based learning, patient simulations, exam preparation, publication and presentation, and data analysis. A wide variety of online reference resources are also supplied by the King/Drew Health Sciences Library.

University Learning Resource Center

The Charles Drew University Learning Resource Center (LRC) is the focal point for the University's educational technology programs. The Learning Resource Center's mission is to promote, provide, and support information technologies for education and research. The LRC facilities include a computer lab, educational technology classroom, and a variety of classroom and meeting spaces. The LRC is equipped with computer and media hardware, and a variety of software for education, research, publication, and curriculum development.

The Learning Resource Center staff provides technology training and support for all university students, faculty, and staff in any area related to Charles Drew programs, from web sites to online course materials.

The LRC facilities include:

- Computer Laboratory (Cobb 185): A general computer lab with 16 workstations, laptop connections, a laser printer, flatbed and film scanners, a film printer, and SmartBoard LCD projection system. The LRC also has a videoconferencing unit and a portable PA system for use anywhere in the Cobb building.
- Educational Technology Classroom (Cobb 183): A computer classroom with 15 workstations, a SmartBoard LCD projection system, instructor podium, document camera, and classroom control software.
- Laptop classroom with 18 desks, wireless networking, and SmartBoard LCD projection system (Cobb 189).
- Small group study/conference room with computer access (Cobb 187).

The LRC staff offers a variety of computer training classes on a regular basis. Courses include computer basics/file management; and PDA basics; and basic, intermediate and advanced levels of MS Word, Excel, PowerPoint, Access, and EndNote. Other classes are developed and offered as requested by the University community. Faculty can schedule one-on-one instruction in the Faculty Research and Curriculum Development Center.

LRC staff has a wide range of technology skills and is a valuable resource for students and faculty who want to develop new resources for education and research projects. The LRC can aid with selecting and connecting equipment, provide web development assistance, and help develop educational and research applications.

To enroll in classes, schedule use of the LRC facilities, or for further information, contact the LRC Assistant at (323) 563-4886, or by sending email to LRC@cdrewu.edu. Class schedules and lists of equipment and software available are on the LRC web site at http://www.cdrewu.edu/kdhsl/LRC.

Student Education and Services Center

Learning Resources in the College of Science and Health are located in the Student Education and Services Center (SESC) in the Keck Building. The SESC offers help, at no cost, to any student or staff member who desires to improve and build their academic skills.

The SESC offers:

- Computer-assisted instruction in mathematics, writing, reading, and other curriculum supported subjects;
- Free tutoring in most subjects for both individuals and small groups;
- Academic skills building workshops scheduled throughout the academic year;
- Instructional video tapes and computer disks available for use both at home and in the center;
- Internet access and Web-based learning programs.

Computer Assisted Instruction (CAI)

The SESC utilizes Plato, a program that helps students gain proficiency in mathematics, reading, English grammar, and in a number of other general education subject areas. Plato provides a series of lessons that specifically address individual needs. Students may be recommended by instructors, or they may use the Plato Program diagnostic tools to determine which of their skills require work.

Additional supplemental instruction programs are available to accompany courses that are taught in the College of Science and Health Curriculum.

Videocassettes, audiotapes, CDs, and text books
Students enrolled in the Medical Spanish classes use audio tapes and CDs on a regular basis to accompany their classroom assignments. The SESC also has a variety of media in various subject areas, including study skills techniques, available for student use. College of Science and Health faculty members also place materials on reserve in the center for students in specific classes.

Study Skills Workshops
Study Skills Workshops are available for students, faculty, and staff and are scheduled throughout each semester. Goal Setting and Time Management, Memory and Concentration, Note-Taking Systems, and Test-Taking Techniques have been the subjects of recent workshops.

Tutoring
Group tutoring is available and can be facilitated by a faculty member or peer. In addition to being aided by a tutor, students in group study settings gain the opportunity to practice what they learn while they work together, teaching each other and learning from each other.

One-on-one tutoring is available when the need has been diagnosed by either the tutor coordinator or the faculty of a specific program. Both peer and professional tutors are available to assist students in one-on-one study sessions.

The Student Education and Services Center contains:

- A main computer area with 24 workstations and a Smart Board-LCD projection system, used by both classrooms and individuals;
- A check-out system for various equipment for classroom use;
- Nine computers located in the Career Center provide additional access to technology;
- Two small group-study rooms with computer access;
- A variety of computer software programs available to fit various study needs.

The Student Education and Services Center hours are:

Monday – Thursday	8:00 a.m. to 6:00 p.m.
Friday	8:00 a.m. to 4:00 p.m.
Saturday	9:00 a.m. to 2:00 p.m.

SESC staff can be contacted by visiting the center at these hours or by calling for assistance at (323) 563-5934.

Faculty Research and Curriculum Development Center
The Faculty Research and Curriculum Development Center (FRCDC) is located on the first floor of the W. Montague Cobb Medical Education Building, inside the University Learning Resources Center. This is a separate area, designed exclusively for faculty to have access to cutting-edge technology that will aid them in instruction and research.

The purpose of the center is to enrich the overall educational experience by equipping faculty members with computer technologies and skills and to provide faculty with facilities for conducting and reporting research.

Equipped with desktop computers and other media tools, the FRCDC allows faculty to explore and develop technology-based learning/instructional materials with direct application to the teaching and learning process. Faculty members receive one-on-one, hands-on training that is tailored to their specific needs. The training is designed to enhance their particular classroom experience and field of study.

The FRCDC works with faculty members to put a portion of their course and testing materials online. This makes content available for both on- and off-campus students via the Internet. The onsite staff aids in the construction of online courses and trains faculty members to post their own materials.

The center also aids faculty research efforts through the development of research enhancement tools, such as online collaboration spaces, survey systems, and data sharing systems.

In addition to training, the center provides:

- Support to faculty, emphasizing courseware development, web strategy, and multimedia issues;
- Systems administration for WebCT, the university's online courseware delivery system, and support for course developers in training and testing;
- Design of instructional courseware for faculty and staff in the form of interactive web pages and CD-ROMs.

The center's state-of-the-art computers have a plethora of software that aids in the development of educational materials. Users of the center also have access to other digital equipment, including a printer and scanner.

To contact the FRCDC, please call (323) 357-3496.

Office of Academic Computing

The Office of Academic Computing (OAC) was created with an endowment from the National Center for Minority Health and Health Disparities with the aim of reducing health disparities through the support of research and education. The OAC provides strategic vision and planning for all aspects of academic computing, and seeks to improve the academic computing environment, develop applications, sponsor research, and provide support for faculty and students using information technology. The OAC helps integrate information technology in research and education, including the integration of technology into the curriculum, and the development and deployment of educational technologies.

The Office of Academic Computing will:

- Establish and implement a strategic plan for academic computing. This includes conducting needs assessments, developing a scenario planning system, and creating a strategic plan. This plan will serve as a blueprint for academic computing for the University, and ensure that academic computing needs are represented in the University strategic planning process.
- Expand instructional technology development and support through workshops, faculty training, cross institutional collaboration, and systems development and implementation. Multimedia and applications development assistance will be made available to faculty for curriculum development and implementation of technology in the medical curriculum.
- Ensure the availability of necessary medical learning and research resources in the King/Drew Health Sciences Library and the University Learning Resource Center.
- Coordinate information infrastructure for education and research, ensuring the most efficient usage of resources.
- Expand educational activities for information technology, including informatics workshops for faculty, students, and residents. It will also help develop an informatics curriculum to be integrated into the existing medical curriculum, including participation in the development of the "informatics thread" in the first two years of the medical program.

For information on how the Office of Academic Computing can help support your research and educa-tional goals, contact OAC@cdrewu.edu

Additional Learning Resources

The College of Science and Health has implemented a successful campaign to provide the latest in educational technology to enhance the teaching and learning experiences for students and faculty. Each of the classrooms in the College of Science and Health has been equipped with a podium or similar cabinet, housing a computer with a high-speed Internet connection; a VCR/DVD combo player, sound system; and an overhead LCD projector and SmartBoard interactive screen. Faculty has been trained in the use of the equipment and is able to present class instruction using a variety of multimedia approaches.

The college's Keck Lecture Hall is equipped with state-of-the-art presentation and video conferencing technologies. The hall has been outfitted with dual-screen projectors, a podium with two computers, a document camera, a VCR/DVD player, and SmartBoard interactive technology for presentations.

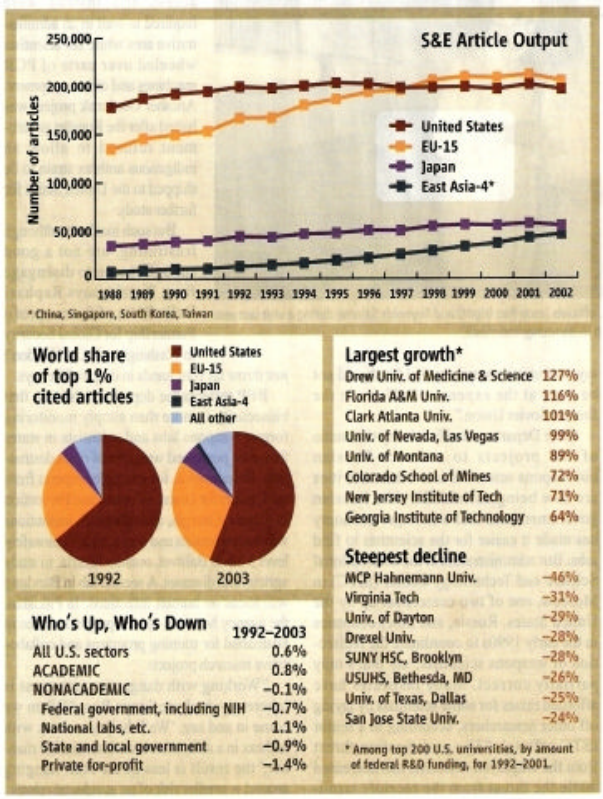
In addition, the lecture hall is capable of hosting video conferencing with up to three remote sites simultaneously. The center is equipped to handle video conferencing in IP mode. A satellite downlink as well as commercial digital satellite educational programming can be broadcast in the audito-rium. Programming can be recorded and archived for later classroom use.

Both the College of Medicine and the College of Science and Health have portable video conferencing units that allow classrooms and faculty to connect and interact with remote sites.

Research

Charles Drew University of Medicine and Science performs high quality research that focuses on key health disparities issues. The University has had tremendous growth in research with an increase in its annual research funding from $5.7 million in 1998 to $34 million in 2005. Charles Drew University now ranks in the top 7% for the level of funding from over 3,000 NIH-funded institutions and in the top 50 Private Research Universities as rated by the Center for Measuring University Performance. A recent NSF analysis (figure 1) reported US scientific publishing was flat from 1992-2001 despite increased research funding. The #1 institution in the country in publication growth over this period among the top 200 institutions by level of NIH funding, was Charles Drew University with a 127% increase (the U.S. average is <1%).

Figure 1 NSF Report*



** Top American Research Universities, 2006. p14. Accessed July 26, 2007 at http://mup.asu.edu/research2006.pdf; Science, 2007; vol. 317, p. 582.*

The Charles Drew University Research Enterprise is dedicated to closing the gap on health care disparities among underserved and ethnic minority populations and so much more. The important work done by our researchers brings attention to health issues and diseases that disproportionately affect minorities and the poor. Diabetes, hypertension, cancer, reproductive health, chronic kidney disease, neuro-psychiatric disorders and HIV/AIDS are just a few of the areas where Charles Drew University researchers, faculty and staff members make a difference. Our nationally and internationally renowned researchers are breaking new ground, integrating research advances into the basic sciences and setting new standards in healthcare disparities research for underserved communities. In July 2007, the University was awarded a $9.5 million NIH-NCRR grant to lead a Research Centers in Minority Institutions (RCMI) Translational Research Network to reduce health disparities and strengthen the research capacity of each of the 18 partner institution across the consortia.

Medical Sciences Institute

The Medical Sciences Institute (MSI) plays a significant role in the future of medical research at the Charles Drew University. Established in 2005 with a $35 million endowment base, this new organizational structure and endowment foundation serves as a starting point for the next phase in growth for the Charles Drew University Research Enterprise by providing researchers with support previously unavailable at the University. The MSI provides new pathways to research discoveries at Charles Drew University through creating innovative research teams and re-engineering the clinical research enterprise in a highly structured system. Doing so improves opportunities for the recruitment and retention of junior and senior researchers who pursue NIH funding for desperately needed research that has the greatest potential for reducing health disparities throughout the world.

Research Centers

- Telemedicine
- Research Centers in Minority Institutions (RCMI)
- Charles Drew University Center for AIDS Research, Educational Services
- HIV Identification, Prevention and Treatment Services
- RCMI Clinical Research Center
- The Center for Health Improvement of Minority Elderly
- The Charles Drew University/UCLA Excellence in Partnerships for Community Outreach, Research on Health Disparities and Training (EXPORT) Center
- The Center for Urban Research and Education in Diabetes and Metabolism
- The Charles Drew University/UCLA Comprehensive Cancer Center
- Minority Biomedical Research Support for Continuous Research Excellence (MBRS-SCORE)
- Comprehensive Center for Health Disparities for Chronic Kidney Disease
- Charles Drew University/UCLA Reproductive Science Research Center
- RCMI Translational Research Network

Research Partnerships

- *University of California, Los Angles (UCLA)* – Since its inception, the University has conducted more than 70 collaborative projects to date numerous collaborative research projects with UCLA.
- *RAND* – Both RAND and UCLA are strong research partners with the University. The depth and breadth of these collaborations has accelerated during the last 10 years, with most activities focused on health disparities work. Additionally, these collaborations have created an environment where senior scientists at have committed to support the development of junior faculty at Charles Drew University.
- *RCMI-funded institutions* – Through the newly funded RCMI Translational Research Network (RTRN), led by the Charles Drew University RCMI-BRC, a collaboration of the 18 RCMI-funded institutions will play a key role in facilitating multi- and inter-disciplinary translational research teams across the RCMI consortia, with a focus on diseases identified by Healthy People 2010 as priorities for improving the nation's health. RTRN represents a groundbreaking effort to integrate clinical, biomedical, and behavioral researchers with providers and community leaders into novel geographic and ethnically diverse research partnerships.
- *Community Ties and Partnerships* – The University has a number of strong partnerships and collaborations with community organizations and successfully engages surrounding communities in participatory-driven research. This work includes over 100 ongoing partnerships including programs to communicate research-based information to increase public awareness of health issues; efforts to improve the transfer of evidence-based knowledge to community-based healthcare providers; supporting, enhancing, and actively engaging in ongoing and new community-based participatory research efforts, with a range of partners, including the South Central Family Health Center, the Nickerson Gardens Housing Project, and the Oasis HIV Clinic, among others.

Contact Info:

Office of Research	
11705 Deputy Yamamoto Pl., Ste B	
Lynwood, CA 90262	323-249-5702
Medical Sciences Institute	323-249-5714
RCMI	323-563-5911
Office of Grants and Contracts	323-563-5843
Office of Research Administration	323-563-5990

University Policies

Academic Freedom

As a member of an institution of higher learning, faculty members have the right and obligation to promote conditions of free inquiry by discovering, creating, examining, and transmitting knowledge and by educating students. In order to protect the institutional integrity and academic freedom for faculty and students, the University will support the right to examine all pertinent data, to question assumptions, and to be guided by the evidence.

Because of the University's unique origin and mission, the faculty and students must maintain the freedom to respond to the needs of the underserved communities in the pursuit of equity and justice.

As citizens engaged in a profession that depends upon freedom for its well being and integrity, the faculty have a particular obligation to ensure that freedom from duress is maintained. The faculty also has an obligation to ensure that sanctions aimed at suppressing intellectual independence, free investigation, and unfettered communication in the academic community do not occur.

Academic Integrity

The Charles Drew University's academic integrity policies have been developed to serve as the basis for maintaining an environment of integrity. As members of the academic community, faculty, students, and administrative officials share the responsibility for maintaining this environment. Faculty have the primary responsibility for establishing and maintaining an atmosphere and attitude of academic integrity such that the University may flourish in an open and honest way. Students share responsibility for maintaining standards of academic performance and classroom behavior conducive to the learning process. Administrative officials are responsible for the establishment and maintenance of procedures to support and enforce these academic standards.

Thus, the entire academic community bears the responsibility for maintaining an environment of integrity and for taking action to appropriately sanction individuals involved in any violations of University policy. When there is a clear indication that such individuals are unwilling or unable to support these standards, they will not be allowed to remain in the University. The following guidelines describe the

University's expectations regarding the joint responsibility of faculty, students, and administrators for problems of academic integrity.

Academic Dishonesty
Defined as any academic act which intentionally violates the trust upon which the pursuit of truth is based. The sections that follow illustrate key areas in which academic dishonesty should be watched for and eliminated:

- Examination Behavior: During didactic training, any behavior that involves external assistance is considered academically dishonest, unless expressly permitted by the instructor. Specific violations that are considered unacceptable during an examination include communicating in any way with another student during the examination, copying material from another student's examination, and using unauthorized notes or other devices during an examination.
- Fabrication: Any intentional falsification or invention of data or of a scholastic citation in an academic exercise is considered a violation of academic integrity. Acts of fabrication include altering existing data and resubmitting returned and corrected academic work under the pretense of grader evaluation error when, in fact, the work has been altered from its original form.
- Plagiarism: The appropriation and subsequent passing off of another's ideas or words as one's own is plagiarism. If the words or ideas of another are used, acknowledgment of the original source must be made through recognized referencing practices. Any use of a direct quotation must be acknowledged by footnote citation and by either quotation marks or appropriate indentation and and spacing. If another's ideas are borrowed in whole or in part and are merely recast in the student's own words, proper acknowledgment must be made; a footnote or proper internal citation must follow the paraphrased material.
- Other Types of Academic Dishonesty: The following activities are also considered violations of the University's academic integrity policy: submitting a paper written by or obtained from another, using a paper or essay in more than one class without the instructor's express permission, obtaining a copy of an examination in advance without the knowledge and consent of the instructor, using another person to complete homework assignments or take home examinations without the knowledge and/or consent of the instructor, altering academic records, using electronic devices to perform coursework or during an in examination without the express permission of the instructor.

Faculty Responsibility
It is the primary responsibility of every faculty member to maintain the academic integrity of the University, and to support other faculty members in maintaining a didactic atmosphere that is conducive to orderly and honest conduct.

Student Responsibility
Students admitted into Charles Drew University assume an obligation to behave in a manner compatible and consistent with the function of the University as an educational institution. The following sections outline the University's expectations relating to student responsibility and performance, which should be taken to include academic integrity as well as professional and ethical behavior.

- Students must uphold the rules and regulations regarding examination behavior, fabrication, plagiarism, and other types of academic dishonesty as described above.
- Students must refrain from obstructing or disrupting teaching, administration, or other university activities, including the work of the University's public service functions.
- Students must work with the institution in discouraging negative behavior among peers by informing classmates of appropriate conduct and behavior.
- Students must conduct themselves with the professionalism expected of clinicians dealing with patients, families, colleagues, other health care workers, and the public.
- Students must respect patient confidentiality and adhere to the standards of record keeping.

Academic Responsibility
Faculty members have the freedom to discuss controversial matters in the classroom, as long as they relate to the subject matter. They are entitled to intellectual review by students, as well as peers.

Faculty members are entitled to full freedom in research and in the publication of the results. However, the investigator must refrain from investigational procedures that harm or endanger others without their informed consent. Academic freedom does not allow for causing unnecessary harm to research animals. Classified research, by its very nature, is inconsistent with academic freedom.

Confidentiality
No information pertaining to student performance presented at a program or committee meeting or in a counseling session will be discussed or divulged outside the respective program committee membership. This prohibition includes information of a non-academic and personal nature and all deliberation and details of committee voting.

Compliance with Regulations
When students register for courses through Charles Drew University, they are agreeing to abide by College regulations concerning admission, registration, academic performance, student conduct, financial aid, fee payments, and assessments. Although many of these regulations are set forth in this document, more information can be obtained from the program offices and the Office of Student Services.

Student Conduct
The Office of the Executive Vice President continually reviews student policies and regulations to ensure that they reflect changes in basic University practice and policy, and to recommend modifications as warranted by a changing student environment. Included in the office's review are the regulations pertaining to the student conduct system which is administered by the Office of the Executive Vice President presiding in coordination with the Office of Student Affairs.

The Office of Student Affairs for each college reviews all matters relating to student conduct and academic integrity. A complete description of the student conduct system is printed in the Student Handbook.

Disciplinary Procedures
Procedures for handling alleged violations of the academic integrity policy are the responsibility of each of the University's colleges. These procedures are outlined in the colleges' respective student handbooks.

Other Institutional Policies

Non-Discrimination
The Charles Drew University does not discriminate on the basis of race, creed, ethnicity, color, sex, religion, national origin, marital status, sexual orientation, mental or physical disabilities, or age in any of its policies, practices, or procedures. For inquiries or complaints call: Human Resources at (323) 563-5827.

Drug-Free Workplace and University
The Charles Drew University recognizes drug dependency (including addiction to controlled or prescription drugs, over-the-counter medications, alcohol, or tobacco) as an illness and a major health problem. The University also recognizes drug dependency as a potential health, safety, and security problem within the campus environment.

The objective of the University's policy is to provide a drug-free, healthful, safe, and secure campus and work environment.

Each new employee and student is provided a copy of this policy during initial orientation, and a written reminder of this policy is distributed annually to each employee and student. All employees and students are required to abide by the terms of this policy.

Sexual Harassment
The Charles Drew University views sexual harassment as a violation of Title VII of the Civil Rights Act of 1964. Sexual harassment will not be tolerated at the University. Such conduct is outlined as follows:

- Unwanted or offensive sexual flirtations, touching, advances, or propositions.
- Verbal abuse of a sexual nature.
- Unwanted or offensive graphic or suggestive comments about an individual's dress or body.
- Sexually degrading words to describe an individual.
- The display of sexually suggestive objects or pictures in the workplace.

If any student or employee encounters conduct believed to be inconsistent with university policy, he or she is urged to report the information immediately to the University's Human Resources Office at (323) 563-5827.

The University's policy also prohibits all forms of harassment which are based on a person's race, ethnicity, age, physical or mental disability, sexual orientation, or any other basis prohibited by federal, state, or local law.

Acquired Immune Deficiency Syndrome (AIDS)
It is the policy of the Charles Drew University that no person shall be discriminated against based on AIDS, AIDS Related Complex (ARC), or a positive Human Immunodeficiency Virus (HIV) antibody test.

The University considers persons with AIDS, and those with other manifestations of HIV infection, as having a disability in accordance with Section 504 of the Rehabilitation Act.

No information concerning the health status of persons with AIDS, ARC, or a positive HIV antibody test will be provided to faculty, staff, students, family, or others without the express written permission of the student or employee (faculty and staff) in each case. Additionally, no person, group, agency, insurer, employer, or institution will be provided any medical information without the prior express written consent of the student or employee, with the exception of reporting requirements imposed by law. Students and employees with AIDS, ARC, or a positive HIV antibody test will not be restricted from access to instructional, recreational, dining or other common areas, facilities, or equipment.

The University-Wide AIDS Task Force is responsible for carrying out the following duties:

1. Develop, implement, and administer University AIDS policies and procedures.

2. Develop guidelines and procedures for the analysis and disposition of issues related to students and employees with AIDS, ARC, or a positive HIV antibody test. Guidelines and procedures must be designed to address issues in a caring, compassionate, and responsible manner ensuring the confidentiality and dignity of students and employees.

3. Continuously review and revise guidelines and procedures as necessary to reflect new information and legislation regarding AIDS.

4. Review, analyze, and respond to each case relating to AIDS, ARC, or a positive HIV antibody test and make recommendations to the President.

5. Keep abreast of new developments concerning AIDS.

In furtherance of these duties, the task force has compiled specific guidelines and procedures for application of the University's AIDS Policy to students, employees (including faculty and staff), food service workers, and healthcare workers. For a complete copy of the University's AIDS Policy and applicable guidelines, telephone the Office of Medical Student Affairs at (323) 563-5956.

Disability

The University does not discriminate on the basis of disability in granting admission, access, or employment in its programs and activities. The Americans with Disabilities Act of 1992, as amended, and the regulations adopted thereunder prohibit such discrimination. Accepted applicants must have abilities and skills of different varieties, including observational, motor, conceptual, integrative, quantitative, behavioral, and social.

Student Rights to Program Records

The Family Educational Rights and Privacy Act of 1974 allows current and former students to inspect and review unrestricted official records, files, and data directly related to them.

The statutes consider certain materials as outside the definition of "educational records" and thus, not open to inspection. The statute also specifies who may have access to the student's record or information therein.

1. Current or former students who want to review their records shall provide, in writing, permission to allow access to restricted portions of their records.

2. Program departments will give students an opportunity to review their files.

3. Students have the right to correct any inaccurate or misleading entries or to insert a written explanation clarifying the contents of the student record.

Student records contain information on the student's progress, evaluations, test results, and grades, which become a permanent part of the student's file. Grades are added to the student's file at the end of each semester.

Students may request, in writing, copies of their permanent record excluding third party documentation. Complete information on the Family Educational Rights and Privacy Acts of 1974 can be found in the student handbooks.

University Student Life

The University strives to satisfy the needs and interests of its students by ensuring that the learning atmosphere is conducive to their social, cultural, and spiritual growth. With a diverse student population, the University endeavors to serve the educational and personal needs of its students by committing to the concept that an educational institution exists for the purpose of assisting the individual student in the learning process. The realization and development of a sense of local community, state, national, and international responsibility is also central to student life here at Charles Drew University.

Student Government/Activities

Charles Drew University offers a variety of campus opportunities for student involvement and leadership development, ranging from informal groups in which students share common interests to formal and organized participation in elective government.

In keeping with the philosophy of the University, the responsibility for student government in the College of Science and Health is placed with the students. The Charles Drew Student Government (CDSG) provides opportunities for students in social, service, curricular, and special interest programs. CDSG elects officers each year to serve on the Student Council to represent the general student population. Regularly enrolled students of the college are encouraged to be participating members of the organization.

Student Health

Students are responsible for their own routine health maintenance and chronic health care. For medical emergencies, 24-hour service is available to all University students through the Department of Emergency Medicine or the Department of Family Medicine at the MLK-Multi-Ambulatory Care Center (MACC).

Counseling Services

Students are encouraged to seek the personal and academic counseling services provided for them while attending the University. As a fundamental and integral part of the educational process, emphasis is placed on assisting students to grow and to accept responsibility for their own actions.

Recognizing that each student is unique, the primary responsibility of the counseling service is to respect students' individuality, ensure confidentiality, encourage development, and foster an environment in which students can attain academic success.

The overall goal of the counseling service is to promote personal, educational, and professional growth to individuals within the student body and the surrounding community. The services provided include:

- New student orientation
- Academic counseling
- Personal counseling
- Transfer information
- Career assessment
- Special services for disadvantaged and disabled students

Student Identification

Photo identifications are issued by the Office of Student Administration during registration. Students must wear the appropriate I.D. badges for student identification purposes especially when they are in university or clinical settings or whenever they are in contact with patients.

New Student Orientation

The orientation process acquaints students with college programs, services, facilities and grounds, academic expectations, and institutional procedures. All students entering the University are required to participate in the orientation component. The University will make reasonable efforts to ensure that all students are provided with the opportunity to participate in the orientation process.

University Services

Public Safety

The Office of Risk Management provides the University with an occupational safety program. The Office of Risk Management coordinates all programs pertaining to safety, accident control, and fire safety.

Safety for faculty, employees, and students is provided by the University's Office of Security. For additional information, contact the Office of Risk Management at (323) 563-5825.

Housing

There are no facilities available for on-campus housing at the University. On-campus student housing is planned for the future. Currently, students are responsible for finding their own housing.

Transportation
The Los Angeles Metropolitan Transit Authority (MTA) has routes throughout the entire Los Angeles metropolitan area during the day and evening. Registered students showing proof of enrollment can obtain student bus and Metrolink passes at a discount rate.

Parking
Conveniently located surface parking lots provide parking for students and visitors on campus on 120th Street, and adjacent to the campus on 118th Street.

Virtual Bookstore
The University utilizes the Varsity Books book-store for purchasing student textbooks. All orders processed with MBS Direct will be shipped within 24 hours. Their buyers cut the costs of books for students by providing used books and offering a buy-back program.

A toll-free number is available for students to obtain quotes for their textbooks. This program also makes buying easier for the students through the 24-hour Internet service. Book orders may be placed on the Internet at www.varsitybooks.com; or by telephone at (877) 827-2665.

Lost and Found
Charles Drew University Security serves as a central repository for lost and found articles. Lost and found items should be taken to the security booth located on the 1st floor in the Cobb Building. The booth is open Monday through Friday from 8:00 a.m.-5:00 p.m. To contact security on the weekend please call Security Officer's paging number at (213) 701-4019 or cell phone at (213) 422-3617.

Student Awards

College of Science and Health

The College of Science and Health has established the following standards for recognizing the achievement of its students with the following honors and awards. At the end of each fall, spring, and summer semester, the Office of Enrollment Services recognizes matriculated students in excellent academic standing.

Dean's List: Students earning 12 or more credit units in a semester with a grade point average of 3.50 or better in completed coursework are cited on the Dean's List, the highest academic honor.

Honor Roll: Students earning 12 or more credit units in a semester with a grade point average between 3.00 and 3.49 and no grade lower than a C are eligible for the University Honor Roll. The student's 12 units may include a grade of Credit.

Graduation with Honors: The College of Science and Health recognizes academic accomplishments by awarding graduating students honors according to their cumulative grade point average.

- A designation of cum laude (with honors) indicates a cumulative GPA of at least 3.25
- A designation of magna cum laude (with high honors) indicates a cumulative GPA of at least 3.5
- A designation summa cum laude (with highest honors) indicates a cumulative GPA of at least 3.75.

- *Dr. Charles W. Buggs Award:* The College of Science and Health's highest award, named after the prominent microbiologist and first dean of the College of Science and Health at Charles Drew University, is presented to the graduating senior who has maintained the highest GPA throughout his or her training and has exemplified the personal characteristics of competence and compassion.
- *Dr. Jack Mitchell Award:* Named after a community physician who was an early advocate of allied health education at Charles Drew University, is presented to the graduating senior who has demonstrated leadership among his or her peers in college and university activities and in the provision of health care to community residents.
- *Dr. Raymond Kivel Award:* This award, named for the medical director under whose leadership the MEDEX Physician Assistant Program attained nationwide prominence, is presented to the graduating senior whose voluntary community service has demonstrated an extraordinary commitment to the delivery of health care in medically-underserved communities.

- *Dr. Mary McLeod Bethune Award:* Named in honor of the outstanding educator, whose life and legacy serves as an inspiration to all, this award is presented to the graduating senior who has demonstrated the ability to persist in the face of adversity.

College of Medicine

Students in the Medical Education Program are encouraged to learn and perform in a manner that is consistent with the University's Mission and are recognized for their achievements in the following categories of awards:

- *Dr. Charles Drew Award:* The College of Medicine's highest award, this honor is presented to the graduating student who, in the opinion of the faculty, has most exemplified a combination of compassion and academic excellence over all years of training. Winners of this award perform in a manner exemplary of the institution's Mission, as manifested in academic achievement in basic science and clinical coursework. Awardees also demonstrate compassion in clinical service. The winner of this award is selected by the Awards Committee, with input from the senior class.
- *Dr. Mitchell Spellman Award:* This award, named for the first Dean of the College of Medicine, is presented to the graduating student who has demonstrated unique and noteworthy achievement, not necessarily in the field of medicine. The winner of this award is selected by the Awards Committee, with input from the fourth-year class.
- *Dr. Geraldine Burton-Branch Award:* Named for a physician who resides in the community served by the MLK Hospital, this award is presented to the graduating student who has demonstrated outstanding performance in the primary care course over the clinical years. The winner of this award is selected by the Awards Committee with input from the primary care faculty.
- *Dr. Carlos Juan Finlay Award:* This award, named after the Cuban physician who discovered the role of the *Aedes aegypti* mosquito in the transmission of yellow fever, is presented to the graduating student who has most exemplified excellence in community service or public health. The winner of this award is selected by the Awards Committee, with input from the fourth-year class.
- *Dr. Martin Luther King, Jr., Award (Silver Medal):* Named for the noted civil rights leader, this award is presented to the graduating student who has most exemplified peer support and advocacy. The recipient of this award is selected by the Awards Committee, based on nominations by the members of the fourth-year class.
- *Dr. Rebecca Lee Award:* This award, named for the first Black woman to receive the M.D. degree in the United States, is presented to the graduating student who has best exemplified excellent performance despite adverse circumstances. The winner of this award is selected by the Awards Committee, with input from the senior class.
- *Departmental Awards:* Departments of the College of Medicine according to unique criteria established for each award.

Honor Society

College of Science and Health

The Delta Chapter of the Epsilon Tau Sigma Honor Society of the National Society of Allied Health is located on the campus of Charles Drew University. The purposes of the society are:

1. To promote high standards of scholarship, academic achievement, and professionalism among allied health students at traditionally and historically Black colleges and universities.

2. To foster service to the masses of people who are ill, underprivileged, ill-housed, and impoverished—in our communities and abroad—through the application of our chosen health professions.

3. To strive always to live lives which exemplify and fulfill the tenets of the Legacy of Mary McLeod Bethune.

To become eligible for active membership in the honor society, students must satisfy the following requirements:

1. The student must be an associate or baccalaureate degree candidate.

2. The student must have been enrolled in an allied health curriculum for at least two consecutive semesters.

3. The student must have an overall cumulative GPA of 3.2 or better.

4. The student must be recommended by his or her program director, the Student Academic Performance Committee, and the Dean of the College of Science and Health.

5. The student must have shown capacity for leadership and achievement in his or her chosen allied health field.

6. The student must maintain a GPA of at least 3.0 each semester after induction to the society.

Note: Various programs within the college are affiliated with honor society which are discipline specific.

Oath and Honors
This ceremonial occasion during which candidates for graduation are recognized for their accomplishments in academic, service, and other areas while attending Charles Drew University is held every year prior to graduation.

College of Medicine

Alpha Omega Alpha is the only medical honor society in the world. Its aims are the promotion of scholarship and research in medical schools, the encouragement of a high standard of character and conduct among medical students, and the recognition of high attainment in medical science, practice, and related fields.

Election to Alpha Omega Alpha is a distinction that accompanies the physician throughout his/her career. Members can be elected as students, graduates, or faculty of an affiliated institution, or on an honorary basis because of their distinguished achievement in any field of medicine. Chapters elect undergraduate members from students in their last two years of medical school. Scholastic excellence is not the only criterion for election: integrity, capacity for leadership, compassion, and fairness in dealing with one's colleagues are considered to be of equal significance.

Students elected to the society are men and women who, in the judgment of the local chapter, have shown promise of becoming leaders in their profession. The number of students elected from any CDU/UCLA class may not exceed one-sixth of those expected to graduate for that year.

Professional Associations
Students at Charles Drew University participate in a wide variety of professional associations designed to broaden the scope of their collegial relationships and provide support for ongoing career development.

Latino Medical Student Association (LMSA)
Student National Medical Association (SNMA)
American Medical Student Association (AMSA)

College of Science and Health Administration

Gail Orum-Alexander, Pharm.D.
DEAN

Christopher Reid, M.D., Ph.D.
ASSOCIATE DEAN

PROGRAM DIRECTORS

Sonsoles de Lacalle, M.D., Ph.D.
CHAIR, BIOMEDICAL SCIENCES

Blanca Caro, M.D., R.D.M.S.
DIRECTOR, DIAGNOSTIC MEDICAL SONOGRAPHY

Harold Abramowitz, M.F.A.
INTERIM DIRECTOR, GENERAL STUDIES

Victoria Cutler, M.P.H., C.P.T., C.M.A.
DIRECTOR, MEDICAL ASSISTANT PROGRAM
DIRECTOR, DIVISION OF CONTINUING STUDIES

Monica Thurston, M.B.A., R.H.I.A.
DIRECTOR, HEALTH INFORMATION TECHNOLOGY PROGRAM

Eugene Hasson, M.S., R.T., (R)
DIRECTOR, RADIOLOGIC TECHNOLOGY PROGRAM

Candice Goldstein, Ph.D., CADC-II
DIRECTOR, ALCOHOL AND OTHER DRUG STUDIES / SUBSTANCE ABUSE COUNSELING PROGRAM

Gail Orum-Alexander, Pharm.D.
DIRECTOR, PHARMACY TECHNOLOGY PROGRAM

Gilbert Ramirez, Dr.P.H.
DIRECTOR, MASTER OF PUBLIC HEALTH PROGRAM

Rischelle Turner, M.S., P.A-C.
INTERIM DIRECTOR, PHYSICIAN ASSISTANT PROGRAM

John Radtke, M.A., B.S.R.T., R.T.(R), R.T.(N), C.N.M.T
INTERIM DIRECTOR, NUCLEAR MEDICINE TECHNOLOGY PROGRAM

History of the College of Science and Health

The first allied health programs at Charles Drew University preceded the establishment of the current College of Science and Health with the implementation of MEDEX physician assistant and radiologic technology programs in cooperation with UCLA and Harbor General Hospital. Creation of a College of Science and Health (then the College of Allied Health) was first proposed in 1975 when a number of allied health programs were being developed in response to expanded clinical needs of the surrounding, urban population. In 1983, Charles Drew University's Board of Directors consolidated existing programs and authorized creation of the College of Science and Health.

In 1987, the State of California's Office of Private and Post Secondary Vocational Education granted Charles Drew University's College of Science and Health a license to offer a Bachelor of Science for primary care physician assistants and an Associate of Science degree in medical record technology. The first class of physician assistants received their bachelors' degrees in 1988. Since then, a wide range of programs has been added.

In April 2005, the College was renamed College of Science and Health to reflect the addition of research-based programs, such as Biomedical Sciences and other health disciplines, like Public Health.

The College of Science and Health

The College of Science and Health at Charles Drew University of Medicine and Science offers undergraduate degree programs leading to the associate or baccalaureate degrees or professional certificates. It also offers a master's degree program in Urban Public Health. Health professions program that welcome applications from qualified students include: Alcohol and Other Drugs Studies/Substance Abuse Counseling (AS/Certificate), Biomedical Sciences (BS), Diagnostic Medical Sonography (Certificate), Health Information Technology (AS/Certificate), Medical Assistant (AS), Medical Imaging Technology (BS), Nuclear Medicine Technology (Certificate), Pharmacy Technology (AS), Pre-Healing Arts (BS), Primary Care Physician Assistant (BS/Certificate), Radiography (AS), Post Baccalaureate in Pre-Medicine (Certificate) and Urban Public Health (MPH).

The Charles Drew University provides its College of Science and Health students a solid science and liberal arts background, which enables graduates to bring a rich and informed sense of public responsibility to their careers as health care professionals or biomedical scientists. The educational experience is intended to produce first-rate clinicians, public health professionals, managers, and scientists; inspire students to commit to life-long learning; and that knowledge is power.

In keeping with the Charles Drew University's mission, the goal of the College of Science and Health is to foster a dynamic educational climate that provides students with relevant educational experiences leading to both personal and social growth. This environment is designed to enable students to attain their personal goals, become competitive in the job market, and to be involved with their communities.

Each of the College's undergraduate degree programs consists of a general education component, elective courses, and specified courses in the major. The general education component provides a base of knowledge in the fields of communication, humanities and arts, natural and social sciences, and citizenship responsibilities. Elective courses provide opportunities for students to gain additional exposure to a variety of fields. Courses in the major require students to achieve a depth of knowledge and expertise in their chosen field of study. Together, the three components provide exposure to the broad domains of higher education.

Note: For MPH graduate academic policies, refer to academic policies contained in the Master of Public Health section of this catalog.

The College of Science and Health aims to be recognized not only as a leader in the educational preparation of allied health professionals, but also as a catalyst for public policy reforms in the healthcare system. Toward this end, the academic curricula of the College emphasize clinical and preventive medicine, competency-based education, and community-based practice. Its clinical programs are designed to graduate competent and compassionate urban specialists who provide primary healthcare services to culturally-diverse, medically-underserved populations.

The College of Science and Health is committed to providing service to medically underserved populations. It is an active force in the education and training of students from the surrounding communities and

other disadvantaged areas. The students, faculty, and staff of the College are dedicated to competence in allied health education, research, and community service.

Academic Community

Students

Reflecting population shifts that have taken place in the community at large over the years, the demographics of Charles Drew University of Medicine and Science are now more diverse than ever. The Charles Drew University students primarily hail from Los Angeles, though the student body also includes students from other areas of California, the United States, and nations around the world. These students represent various ethnic groups and speak many different languages. Charles Drew University unequivocally supports equal access for students of all backgrounds. Many are first generation college students and come from underprivileged communities. Because of their commitment to the University's mission, most of the University's graduates return to those communities to serve and to work.

Faculty

The Charles Drew University faculty members are unwavering in their commitment to providing quality education to their students and adjusting their teaching methods to accommodate diverse learning styles. The College strives to hire faculty who appreciate the value and benefits of our student body's diversity. Instructional technology and distance education are a growing interest among the College of Science and Health faculty as means of delivering instruction to students.

Community Service and Service Learning

The intent of the College's community service and service learning requirement is to provide students with an opportunity to apply the theories and competencies learned in their core and program courses to the real needs of the community, through service and service learning activities.

To facilitate achievement of these community service goals, learning experiences must be conducted in a setting or with population that meets at least one of the following criteria: 1) low income; 2) disadvantaged, underserved, or under-represented; or 3) other special populations or communities as defined by course requirements (e.g., hospice patients, victims of domestic violence, students with special learning needs, etc.). The college program ensures that proposed community service assignments further the Charles Drew University's mission and provides verification of the approved community service and service learning activity to the service learning coordinator.

Students enrolled in the College of Science and Health are required to complete a minimum number of hours in community service. Prior to graduating, students in certificate programs must complete at least 25 hours of service; associate degree students must complete at least 50 hours of service; and bachelor's degree students must complete 100 hours of service. The College and programs retain the authority to establish requirements for completion of the community service and service learning component.

Community service and service learning hours are fulfilled when the fieldwork component and the appropriate course work (classes) that accompany this area of study have been completed.

Admissions Information

Admissions is a competitive process in which each student's entire application packet is individually reviewed. In selecting students, each program considers evidence of applicant's integrity, discipline, compassion, and intellectual vigor. Documentation of academic preparation, personal achievement, and letters of recommendation are given careful consideration in the determination of an applicant's eligibility. Additionally, each program's admissions committee takes into consideration all evidence to suggest that applicants are capable of completing the curriculum in the specified time and will be able to achieve the levels of competence that the program requires.

Requirements for Admissions

All applicants to Charles Drew University of Medicine and Science must submit the following documents to satisfy minimum admission requirements:

1. University admissions application.
2. A non-refundable $35 application fee.
3. Undergraduate applicants must submit proof of high school graduation or equivalent (e.g. GED).

4. Graduate program applicants and applicants with an earned bachelor's degree or higher must submit proof of college graduation, if not reflected on the transcript
5. Official academic transcripts from all previous colleges or universities attended (if applicable). Transcripts will be considered official if forwarded directly to the Office of Admissions by the institutions attended. Official transcripts can also be delivered in person in an unopened envelope marked official across the seal of the envelope. All official documents become the property of Charles Drew University and will not be issued to applicants.

Placement Tests

Students requiring general education courses in math and/or English will be required to take a placement test in each subject area. Additional placement tests may be required by individual programs.

Pre-Admission Examinations

Applicants who are offered admission to the College's degree programs are required to take examinations in three fundamental academic skill areas: writing, reading, and mathematics.*

* Results from these tests are used for placement. Applicants who have completed equivalent coursework to satisfy the general education requirement for college mathematics and English with a "C" grade or better must submit official transcripts for evaluation and approval of course equivalency.

Transfer Students

Students admitted with advanced standing or transfer units cannot use grades earned at other colleges in the Charles Drew University grade point average computation. However, transfer units will be counted in the total units required to meet graduation requirements.

1. Only units for courses with a C grade or better will be transferable. Official transcripts are required for transfer of credit. Unofficial transcripts are not acceptable.

2. A maximum of 63 units can be transferred from an accredited institution toward Charles Drew University's bachelor's degree. The maximum transfer credit acceptable for the associate's degree is up to 50% of the total units needed for the program. Program courses may be transferred only upon written approval from the program director and the Dean.

   Courses transferable to Charles Drew University are initially evaluated by the Office of Student Administration upon receipt of the official transcripts. Students can file a petition for exception for courses that do not appear on the official evaluation. Petitions for exceptions must be approved by the appropriate faculty committee and/or program director and the Dean of the College. The institution from which units are being transferred must be accredited by an organization approved by the Department of Education. The following criteria also will be considered when determining whether to award credit:

   a. The comparability of the nature, content, and level of course credit earned to that offered by Charles Drew University
   b. The appropriateness and applicability of the course credit earned toward the program of study.

3. Charles Drew University does not award units for prior non-traditional learning experiences.

4. A student who has been disqualified at another institution, or whose academic record at another institution has fallen below a cumulative G.P.A. of 2.0, may be admitted on probation.

5. Although the required number of units is listed for each program, students must also meet the graduation requirements of the University.

Alternative Forms of Credit Policy

The University welcomes students from a wide variety of backgrounds and learning experiences. Many students come to our institution with a firm grounding in many of the disciplines we teach. We recognize their prior learning by accepting a full range of College-Level Examination Program (CLEP) ® exams, which measure mastery of college-level introductory course content in a wide range of disciplines.*

1. Students are given the option of fulfilling the General Studies requirements through CLEP General Examinations or other standardized examinations in Composition and Literature, Foreign Languages, History, Social Sciences, Sciences, Administration, and Mathematics.

2. The Administration of the Department of General Studies will review the examinations that are approved for elective credit or other standardized

subjects to determine whether they meet the objectives of the different areas that make up the General Study requirements of the College of Science and Health. If any examinations are approved for such credit, the College of Science and Health Education and Academic Policy Curriculum Committee are to be consulted about limits on maximum number of units of General Studies credit to be accepted.

3. Academic Programs are given the option of accepting CLEP subject examinations as meeting requirements toward the major consistent with residence requirements; however, each program will review CLEP subject examinations and other similar standardized subject matter examinations carrying upper division credit to determine their suitability and to set minimum passing scores.

4. Students will receive credit for Advanced Placement (AP) coursework equivalent to the material covered in the AP examination. The courses that are credited will be displayed on the Transfer Evaluation. Questions about credit should be directed to the University Registrar at (323) 563-4939.

A total of 20 credits for successful performance on CLEP examinations can be granted. Contact the General Studies Office for further information.

*** CLEP courses cannot be used for residency or program professional course requirements.**

International Students

The Charles Drew University is approved by the US Department of Homeland Security to admit foreign F-1 visa students. The University welcomes applications from international students. United States citizens or permanent residents with academic credentials from outside the United States are required to submit translations of their transcripts in English if the original is in another language. Likewise, all foreign transcripts must be official and accompanied by a certified English translation from a university approved credentials evaluation service.

1. International students must file an admissions application to the Office of Student Administration and Services and include a $35 non-refundable application fee.

2. Applicants must present documentation of academic preparation equivalent to that of a U.S. high school diploma. The documents must be official and authentic, signed and sealed by the respective institutions from which the applicant received the graduation certificate or degree. A sealed notarized affidavit may be substituted as proof of high school graduation.

3. Academic records should include year-by-year records for each college or university attended (indicating the number of lecture and laboratory hours per week for each course), grades received for each subject, and official documents that indicate the degree awarded with the title and date conferred.

4. Applicants must present evidence of competency in English, such proficiency can be assessed by TOEFL or other means.

5. International students are ineligible for University financial aid and may be required to present proof of financial support.

Admissions Process

Request for information and application forms (by mail, telephone, via internet website, or walk-ins):

- All applications, correspondence and requests for general information about the College of Science and Health will be processed by the Office of Admissions. Specific program information may be forwarded to the corresponding College department for review. For admission to the joint MD program, please refer to the College of Medicine Admissions' section of this catalog. Application information should be addressed to:

Charles Drew University
of Medicine and Science
Office of Admissions
1731 East 120th Street
Los Angeles, CA 90059

Submission of applications:
Applications for most programs can be downloaded from the Charles Drew University website at www.cdrewu.edu. Access to Charles Drew University electronic application is also available on the website. Other programs may participate in national application service collaboratives. Contact the specific program for details.

- Completed applications must be submitted to the Office of Student Admissions prior to or on the final filing date along with the non-refundable $35 application fee. Applications sent by mail must be postmarked by the filing deadline. Many programs have rolling admission deadlines. Please contact the Office of Admission for details.

Priority Application deadlines:

- Biomedical Sciences – December 15th
- Physician Assistant program - January 31st
- All other programs - April 1st

Note: Application form(s) received without appropriate fee(s) and/ or required documentation are not official.

Upon submission, application materials become the University's property. The Office of Student Administration and Services reserves the right to any and all documentation submitted.

Applicant Notice of Acceptance

Applicants are notified of admission status in writing through the U.S. mail by the Office of Admission.

Appeal of Admissions Decision

If an applicant does not concur with a program's decision regarding their admission, an appeal may be submitted in writing to the College's student academic affairs committee for further review, consideration and decision. Should the Dean disagree with the committee's decision, an *ad hoc* committee can be appointed by the Dean to consider the appeal. The decision of the *ad hoc* committee is final. The Dean will notify the applicant of the committee's decision.

Readmission of Former Students

Readmission will be based on the current admissions policies. Candidates for readmission must meet current program requirements. Policies related to the readmission of former students are outlined below:

Returning Students

Students who have been absent for two or more semesters prior to the semester of return must apply for readmission unless approved and/or participating in an approved planned educational leave of absence, as described in the leave of absence section of the student handbook. Returning students will be subject to all the requirements and regulations printed in the catalog for the year of readmission.

Former Students in Good Standing

With approval of the individual College of Science and Health program, students who previously left the University in good standing may be readmitted, providing the academic work attempted elsewhere has not altered their scholastic status. If a student has attempted coursework at another institution during his/her absence from Charles Drew University, official transcripts of that coursework must be submitted to Charles Drew University for consideration in the readmission process.

Former Students on Probation

Students on probation at the close of their last semester remain on probation. If a student has attempted coursework at another institution during his/her absence from Charles Drew University, official transcripts of that coursework must be submitted to Charles Drew University.

Dismissed Students

The readmission of a previously dismissed student is by special action only. The University will not consider a student for readmission until one semester of non-attendance has passed and all recommended conditions of readmission have been fulfilled. Readmission action is based upon evidence that the causes of previous low achievement have been removed. This evidence may include grade reports or official transcripts of work completed at other institutions during the student's absence.

Students who have been dismissed for ethical or behavioral reasons will generally not be readmitted. Special conditions may apply.

Readmissions Process

Students seeking readmission should contact the University Registrar's office at least two months prior to their intended return. Students dismissed from the University for academic reasons should apply early for re-admission to allow time for the re-admission appeal process. No appeals will be considered after December 1 for January admission or August 1 for September admission. Students participating in an approved planned educational leave do not have to apply for readmission. For more information, see the section on leaves of absence of the student handbook.

To reapply, students should:

1. Complete and submit a readmission application, which is available in the Registrar's Office;
2. Include a non-refundable application fee of $15 made payable to Charles Drew University;
3. Submit official transcripts of any coursework attempted during absence from Charles Drew University.

Note: For financial aid eligibility and final filing date, please refer to the financial aid section of this catalog.

Registration

The University Registrar's Office coordinates the registration process of the College. Students needing verification of enrollment should file a written request in the University Registrar's Office located on the second floor of the Cobb Building.

Records

The University Registrar's Office maintains all transcripts and grades. Official and/or unofficial transcripts can be requested from this office.

Grades

All grades reported to the University Registrar's Office are cumulative and for the entire semester to date. Grades represent the faculty's final evaluation of a student's achievement. Final semester grades are mailed to students three weeks after the semester ends. Grade reports that are not received by mail may be requested from the University Registrar's Office. A photo ID is required.

Transcripts

Academic transcripts will be provided to any Charles Drew University student upon the student's written request. A $2* charge for an unofficial transcript request will be assessed. Unofficial transcript processing takes one business day. A $10* fee for the first official transcript and $2* for each additional copy will be assessed. Transcript processing takes five business days. Students may request a next business day service for a $7* fee per transcript. Express mail is available for an additional charge.

Verification Letters

Academic or financial aid verification letters will be provided to any Charles Drew University of Medicine and Science student upon written request. Processing of the verification letters will take five business days.

Duplication of Degrees/Certificates

Duplicates of original academic degrees or certificates will be provided to any Charles Drew University of Medicine and Science student upon written request. The fee is $10* for each original degree or certificate duplicated.

Replacement of Identification Badge

Replacement of an identification badge will be provided to any Charles Drew University of Medicine and Science student for a $10* fee per identification badge.

*Fees may change without prior notice.

Definition of Enrollment Status

New Student: One who has graduated from an accredited institution or who has earned a certified equivalency to a high school diploma and who has applied and been accepted for first time matriculation.

Transfer Student: A student in good standing from other accredited colleges or universities. The applicant's work at prior institutions must meet University standards, admission requirements, G.P.A. requirements, and the program of application's standards.

Continuing Student: One who elects to be absent for no more than one semester subject to the conditions outlined in the section on leave of absence of the student handbook. Continuous students do not lose catalog rights or eligibility for re-registration (continuous enrollment status).

Degree Student: One who has met all requirements for admission to the University and who has been formally admitted to a degree program.

Non-Degree Student: One who has met all requirements for admission to the University and who has been formally admitted to a certificate program.

Undeclared Student: One who has not declared a major. Such students are allowed a maximum of 30 units, including transfer units, before declaring a major. Undeclared students are admitted to the division of general studies.

Provisional Student: One whose academic improvement must be demonstrated within two semesters.

Full-Time Student: One who enrolls in at least 12 semester hours of scheduled work during a semester.

Part-Time Student: Any student enrolled in six to 11 units.

Freshman Student: A student who has completed less than 30 units.

Sophomore Student: A student who has completed 30 to 59 units.

Junior Student: A student who has completed 60 to 89 units

Senior Student: A student who has completed 90 units, but who has completed fewer than the number required for graduation.
Graduate Student: A student who possesses a bachelor's degree and is pursuing a master's degree.
Non-Matriculating Student: Students who wish to enroll in a course offered by the College of Science and Health without having to matriculate into a program or declare a major. This allows students to: 1) meet credentialing requirements of a state licensing agency; 2) meet graduation requirements for another university or for continuing education; or 3) take courses for general interest. A maximum of 12 units may be taken as non-matriculated student.

Policy for Non-Matriculating Students

Students in this category will be assessed tuition and fees at the same rate as matriculated students. Programs and departments may exercise the right to deny non-matriculated students access to certain courses based on accreditation or other contract agreements with clinical agencies. Non-matriculated students will be subject to the same University policies and deadlines as regular students.

Procedure for Non-Matriculating Students

1. Students must complete the admissions application and pay the appropriate application and student activities fee.
2. Undeclared students must obtain written permission from the respective program or department. An interview is required prior to application and registration in clinical courses.
3. Students must submit additional application requirement(s) as specified by respective programs or departments before being considered for admission.
4. Specific course admission must take place prior to the beginning of each semester.

Tuition and Fees

Students can expect to pay the following tuition and fees established by the institution:

Non-refundable Application Processing Fee	$ 35*
One-time Student Activities Fee	$100*
Undergraduate per unit Tuition	
Associate degree and lower division certificate programs	$250*
Bachelor's degree and upper division certificate programs	$312*
Graduate per unit Tuition	$500*
Developmental Courses (000-099) (Resource & Technology Fee)	$100*

*Fees may change without prior notice.

During the registration period, current and/or outstanding fees may be paid by a person other than the registering student. To verify the authority of the person settling the student's registration, that person must present a signed authorization from the student, as well as the student's current identification card.

Students who do not register during the regular registration period will be assessed a $50 late fee.

Refund Policy

Tuition refunds are based on total tuition charges, not on amount paid. This policy is reviewed annually and subject to change.

If a student has been awarded financial aid, the financial aid programs from which the funds are disbursed will be refunded in accordance with federal regulations.

Refunds will be mailed to the student's permanent home address as soon as the required withdrawal forms have been processed.

Students who have executed the required withdrawal forms will receive credit for tuition refunds at the following rates:

Fall and Spring Refund Policy

100 percent	Week one of classes
90 percent	Week two of classes
80 percent	Week three of classes
70 percent	Week four of classes
60 percent	Week five of classes
50 percent	Week six of classes
40 percent	Week seven of classes
30 percent	Week eight of classes
20 percent	Week nine of classes
10 percent	Week ten of classes

No refunds authorized after the tenth week

Summer Refund Policy

100 percent	Week one of classes
95 percent	Week two of classes
85 percent	Week three of classes
70 percent	Week four of classes
55 percent	Week five of classes
40 percent	Week six of classes
25 percent	Week seven of classes
10 percent	Week eight of classes

No refunds authorized after the eighth week

Refund Procedure

The refund amount is apportioned back to the individual financial aid programs in a priority sequence, paying back all that was disbursed from one program before paying back the next program. The priority sequence is as follows:

- Social security number verification
- Independent student status verification
- Permanent residency documents, if an eligible non-citizen
- Citizenship verification
- Proof of income
- Copy of current driver's license/identification
- Proof of high school graduation (diploma, GE, or transcripts)

Note:
Title IV school code is: 013653

Financial Aid

The Financial Aid Office maintains the right to request additional information as may be required to process students' application, including income verification-tax returns, non-taxable income certification, verification of non-filing of tax returns, verification of household size, number of family members in college, among others. Specific questions about financial aid should be referred to the Office of Financial Aid.

Verification Policy

Federal verification requirements apply to the following programs:

- Federal Pell Grants
- Federal Supplemental Educational Opportunity Program (FSEOG)
- Federal Work Study Program (FWS)
- Federal Perkins Loan Program
- Federal Stafford Loan Program

Applications selected for verification by the federal processor, will require additional documentation.

Types of Financial Aid Available

Federal Pell Grant: This program is federally funded. To be eligible, an applicant must be an undergraduate student and demonstrate financial need. The amount of the award, as determined by the Federal Pell Grant Program, is in most cases based on previous year's income and current asset information provided in the application. In certain cases, a family's financial situation can change because of:

- Death in the family;
- Separation or divorce;
- Loss of employment; or
- Loss of non-taxable income or benefits

In such cases, the student should contact the Financial Aid Office.

Federal Supplemental Educational Opportunity Grant (FSEOG): The FSEOG program is a federal program designed to supplement other sources of financial aid for students with exceptional need. FSEOG awards depend on need and packaging policy constraints.

State Grants: The State of California, through the California Student Aid Commissions (CSAC), sponsors several grant programs for undergraduate students. To qualify for any of the state-funded grants, a student must be a California resident and be attending (or planning to attend) an eligible school or college in California.

Cal Grants: There are three types of Cal Grants as described below: Cal Grant A, Cal Grant B, and Cal Grant C. A student can receive only one type of Cal Grant in an award year. Students must be registered in at least six units to be eligible.

The deadline to apply for any Cal Grant is March 2. Students applying for a Cal Grant must also file a G.P.A. Verification Form with CSAC by March 2, and a FAFSA application. The Financial Aid Office have complete information and forms.

Note: Applications are always due by March 2nd of each year.

- Cal Grant A - Assists low and middle income students with tuition costs. To be eligible for a first-time Cal Grant A, a student may not have completed more than six semesters, or nine quarters, of college study and must be enrolled in at least six units of coursework. Financial need and G.P.A. also are used to establish a student's eligibility.

- Cal Grant B - This program provides a living allowance for entering college freshmen who come from very low-income families. This grant is intended for students who would be unable to attend college without such help. Awards are available only to students who have completed no more than one semester of full-time college work (16 semester units or 24 quarter units).
- Cal Grant C - This grant is intended for students who want to train for specific occupations, vocations, or technical careers, but who do not have the financial resources to enter training programs. Programs may range in length from four months to two years. Students must demonstrate occupational achievement or aptitude in their chosen field.

Federal Work Study Program (FWSP)
The FWSP is a federal program that enables students to earn part of their financial aid award through part-time employment. To be eligible, a student must meet the eligibility requirements for federal financial aid and must maintain good academic standing while employed under the program. This program allows students to work a maximum of 20 hours per week. An academic year's work-study award may range from $1,000 to $3,000 depending on availability.

Educational Loans
IMPORTANT: Loan application processing is a timely procedure. Several weeks may pass between when an application is received in the Financial Aid Office and receipt of aid by the student. Student loan checks are to be picked up at the Office of Finance after registration and satisfactory academic progress (SAP) has been verified. All loans must be paid back.

Federal Stafford Loans: Subsidized Stafford loans are based on financial need, and interest accrued while the student is in school is paid by the federal government. Unsubsidized Stafford loans are available to students regardless of income and assets and interest starts to accrue immediately. Students are advised to speak with the financial aid office before applying for a subsidized and/or unsubsidized loan.

For any specific guidelines, please contact the Office of Financial Aid at 323-563-4824.

Repayment: Repayment of Federal Stafford Loans (subsidized and unsubsidized) begins six months after either graduation or student's last date of at least half-time attendance. Repayment of Federal PLUS loans begins within 60 days of the last disbursement. Borrowers have the right to prepay their loans without penalty.

Please check with your lender for any specific repayment plans.

Deferring Repayment: To defer repayment, students must:

- Study at least half time an eligible school
- Attend an approved graduate program or rehabilitation training program
- Participate in a medical internship or residency program
- Be unemployment (up to three years)
- Show economic hardship (up to three years)

During periods of approved deferment, a Federal Subsidized Stafford Loan borrower does not need to make payments of principal, and the interest does not accrue. For the Federal Unsubsidized Stafford or FPLUS borrower, principal repayment may be deferred, but interest continues to accrue and is capital-ized or paid by the borrower during that time.

Forbearance: A loan borrower or endorser may receive forbearance from their lender. The lender decides whether the borrower is willing but unable to make scheduled loan payments. Forbearance is the temporary cessation of payments, an extension of time for making payments, or the temporary acceptance of smaller payments than previously scheduled.

Forbearance is granted to medical or dental interns or residents for limited periods of time.
Entrance and Exit Counseling: First-time subsidized or unsubsidized Federal Stafford Loan borrowers must receive pre-loan counseling.

Shortly before graduating from or terminating enrollment at Charles Drew University, borrowers must receive exit loan counseling. The Financial Aid Office collects information about the borrower's permanent address, references, expected employment, and driver's license number. This information is forwarded to the lender.

Refunds and Repayment: Students who withdraw from school may be expected to repay a portion of their financial aid. According to a formula prescribed by state and federal regulations, any refundable amount used to pay tuition and fees is returned to the appropriate financial aid sources. Students also may be required to pay the unjustified portion of assistance that was directly disbursed to them.

Debt Management and Default Reduction: Charles Drew University is committed to helping students achieve sound financial planning and debt management. Information about loans, repayment options, and debt management strategies are available in the Financial Aid Office.

Federal Parent Loans for Undergraduate Students (FPLUS): These loans are government-insured loans that are made to parents of dependent students. Parents may borrow FPLUS up to the cost of education minus other financial aid received during the years the dependent student is an undergraduate. Variable interest rate is adjusted annually, capped at 9 percent. There is no interest subsidy for this loan. Repayment begins within 60 days after loan disbursement.

PLUS Loans for Graduate and Professional Degree Students: Graduate and professional degree students are now eligible to borrow under the PLUS Loan Program up to their cost of attendance minus other estimated financial assistance. The terms and conditions applicable to Parent PLUS Loans also apply to Graduate/Professional PLUS loans. These requirements include a determination that the applicant does not have an adverse credit history, repayment beginning on the date of the last disbursement of the loan, and a fixed interest rate of 8.5 percent.

Private Loans: These loans are privately funded and are not based on need, so no federal formula is applied to determine eligibility. However, the amount borrowed cannot exceed the cost of education minus other financial aid. Interest rates and repayment terms vary and are generally less favorable than those provided through the federal lending program. Private loans are used to supplement the federal programs when the cost of education minus federal aid still leaves unmet need.

Financial Aid Disbursements: All financial aid is awarded for the academic year. It is applied for the semester that the student has registered for. If the student does not register, financial aid will be cancelled for the semester.

Satisfactory Academic Progress (SAP) Policy for Financial Aid: To be eligible for federal or state col-lege aid, students are required by the U.S. Department of Education and the State of California to maintain satisfactory academic progress toward their degree objectives. In compliance with prescribed regulations and to promote timely advancement toward specific degree objectives, the Charles Drew University has established guidelines that are designed to ensure students successfully complete courses. These requirements also serve as a standard against which to evaluate student progress, grade point averages, and the overall time periods in which students complete their undergraduate programs.

Programs Governed by the SAP Requirements: Programs governed by the SAP policy include the Pell Grant, Supplemental Opportunity Educational Grant (SEOG), Perkins Loan, and Stafford Student Loans. Federal Parental Loans for Undergraduate Students, alternative loans, and Cal Grants.

SAP Requirements: Students who receive any of the aforementioned awards must comply with the following policy in addition to the academic progress guidelines required of all Charles Drew University students.

1. Maintain a minimum grade point average of 2.0 or better each semester;
2. Complete a minimum of six units of credits per semester; and
3. Complete the degree objective within the maximum time allowed.

Satisfying G.P.A. Requirements: To maintain satisfactory progress, students must maintain a 2.0 cumulative grade point average.

Maximum Semester Allowance: To maintain satisfactory academic progress, financial aid recipients must complete their degree programs within a specified amount of time. This time frame depends upon the student's enrollment status and degree objective. The maximum time in which most students are allowed to complete their degree programs while remaining eligible for financial aid is one and one-half the time of the typical program length. A full-time semester will count as a semester regardless of whether the student receives financial aid. A half-time semester will count as half a semester. Less than half-time enrollment will not be counted in the calculation for financial aid.

Failure to meet requirements will result in financial aid ineligibility: Satisfactory academic progress for financial aid is monitored at the end of each semester.

Students not meeting requirements will be placed on probation for one semester. During the probationary period, the students will be eligible to receive financial assistance if all other requirements have been satisfied. Academic counseling should be sought to ensure that the student satisfies all deficiencies during this period. At the end of the probationary period, those students who have not met the minimum unit or academic progress requirements will be placed on

financial aid suspension and may not be ineligible for future financial aid. The Financial Aid Office will notify students of their financial aid ineligibility.

Regaining Eligibility: Students can have their financial aid eligibility reinstated if they successfully complete sufficient units and improve their grade point averages to meet the required standards.

Grade changes (including grades for incompletes) received after semester grades have been submitted must be verified. Students should notify the Financial Aid Office to request a reevaluation.

Students may make up unit deficiencies either at Charles Drew University or at other accredited post-secondary schools. Before attending school elsewhere, students should check with the Registrar's Office to ensure that units for which they plan to enroll are transferable and can be applied toward their degree objectives. Prior to receiving funds for the semester, students must supply the Registrar's Office with a copy of their official transcripts.

Students on financial aid suspension can make up units and/or cumulative grade point average the next academic year, but they cannot receive financial aid during that period. Once the deficiencies have been cleared, students are eligible to apply for financial aid for the upcoming semester.

Other Sources of Financial Aid

Additional kinds of aid are available from other sources, including, but not limited to:

- Veteran Educational Benefits
- Vocational Rehabilitation Assistance

If you are eligible for any of these benefits, you are encouraged to apply early as funds are limited. Contact the appropriate off-campus agency for more details.

Veterans Educational Benefits (VA)

Matriculated veterans may be eligible for Veterans Educational Benefits. Veteran students should contact the Office of Enrollment Services for details.

Under Title 38 of the US Code, Charles Drew University is approved for the training of veterans and other eligible persons. Information regarding eligibility for these programs may be obtained by calling (888) 442-4551 or by visiting their website at www.gibill.va.gov. The Office of Student Administration and Services serves as the certifying official for Charles Drew University. Students should contact the certifying official prior to their first enrollment certification.

Scholarships

Campus-Based Scholarships: As part of Charles Drew University's mission, the College of Science and Health (COSH) awards scholarships for academic performance and/or economic hardship. These scholarships were inspired by the struggles of Dr. Charles Drew, who experienced financial challenges that caused delays in his medical education.

Scholarship Funds are donated by various sponsors, who are interested in contributing to the educational accomplishment of students by providing monetary assistance and thus allowing students more time for their course work.

Selected applicants are notified by the Office of the Dean and receive their awards at an annual scholarship banquet attended by the sponsors.

Available scholarships include:

1. COSH
2. Patrick Gorman
3. Merit
4. Economic Hardship
   - Special Needs Scholarship
   - Dumont Matching Scholarship Endowment
   - Community Involvement

Students are notified of scholarship submission dates and deadlines via scholarship campaigns organized by the Office of Student Affairs.

Applications for scholarships and book grants are available at the Financial Aid Office or can be requested from the Office of Student Affairs for COSH located in the student services center.

Students receiving both financial aid and COSH internal scholarships will have grant or loan amounts adjusted accordingly. For additional information regarding the adjustments mentioned above, please contact the financial aid office.

Non-Campus-Based Scholarships: Throughout the year, the College receives announcements on scholarship opportunities offered to health students by different organizations.

Information regarding these scholarships may be obtained from the campus Financial Aid Office or Student Education Services Center.

Student Awards

The College of Science and Health has established the following honors and awards in recognition of student achievement. These honors and awards are conferred the end of each fall, spring, and summer semester, by the Registrar's Office.

Dean's List

Each semester, students who earn at least 12 credit units with a minimum grade point average (G.P.A.) of 3.50 are cited on the Dean's List, the highest academic honor in the College.

Honor Roll

Each semester, students who earn at least 12 credit units with a G.P.A. between 3.00 and 3.49 and no grade lower than a C are eligible for the University Honor Roll. The student's 12 units (9 units for MPH) may include one Credit grade.

Graduation with Honors

The College of Science and Health recognizes cumulative G.P.A. honors to graduating students. A cum laude designation (graduation with honors) indicates a 3. 5 or better cumulative G.P.A.; a magna cum laude designation (graduation with high honors) indicates a 3.7 or better cumulative G.P.A.; a summa cum laude designation (graduation with highest honors) indicates a 3.9 or better cumulative G.P.A.

- Dr. Charles W. Buggs Award: Named after the prominent microbiologist and first Dean of Charles Drew University's College of Science and Health: it is the College's highest award and is presented to the graduating senior who both has maintained the highest G.P.A. throughout his or her training while exemplifying competence and compassion.
- Dr. Jack Mitchell Award: Named for a community physician who was an early advocate of allied health education at Charles Drew University, this award is presented to the graduating senior who has demonstrated leadership among his or her peers in College and University activities and in the delivery of health care to community residents.
- Dr. Raymond Kivel Award: Named for the medical director whose leadership garnered nationwide prominence for the MEDEX Physician Assistant Program, this award is presented to the graduating senior whose voluntary community service has demonstrated an extraordinary commitment to the delivery of health care in medically underserved communities.
- Dr. Mary McLeod Bethune Award: Named in honor of the outstanding educator whose life and legacy is an inspiration to all, this award is presented to the graduating senior who has demonstrated the ability to persist in the face of adversity.

Honor Society

The Delta Chapter of the National Society of Allied Health's Epsilon Tau Sigma Honor Society is located on the Charles Drew University campus. The society's purposes are to:

1. Promote high standards of scholarship, academic achievement, and professionalism among allied health students at traditionally and historically Black colleges and universities.
2. Foster service to those who are ill, underprivileged, ill-housed, and impoverished in our communities and abroad through the application of our chosen health professions.
3. Strive always to exemplify and fulfill the tenets of Mary McLeod Bethune's legacy.

Students who satisfy the following requirements are eligible for active membership in the honor society:

1. The student must be an associate or baccalaureate degree candidate.
2. The student must have been enrolled in an allied health degree curriculum for at least two consecutive semesters.
3. The student must have an overall cumulative G.P.A. of 3.2 or better.
4. The student must be recommended by his or her program director, the Student Academic Performance Committee and the Dean of the College of Science and Health.
5. The student must have shown capacity for leadership and achievement in his or her chosen allied health field.
6. The student must maintain a G.P.A. of at least 3.0 each semester after induction to the society.

Oaths and Honors
Held annually, this ceremonial occasion recognizes graduation candidates for their accomplishments in academia, service, and other areas.

Student Life

Orientation
The orientation program is crucial in teaching new students and their parents about the University. This program provides academic testing, various presentations, informal discussions, opportunities to meet other incoming students and to interact with members of the University community.

Academic Advising
Faculty advisors provide academic advice, support, and encouragement throughout the duration of the student's academic program. A faculty member from the student's major program serves as the academic advisor throughout the student's career at the University. Faculty members serve as advisors to provisional students as well. Department of General Studies faculty members will advise undeclared students.

Academic advising is a service provided to all students who need assistance selecting major, scheduling classes, or seeking tutorial support and guidance in making certain they meet all graduation requirements. Students who utilize academic advisement services usually complete their educational goals in a timely manner and are unlikely to drop out of school.

Students may meet with their academic advisor by scheduled appointment or on a drop-in basis during office hours. Students entering degree programs will be assigned to a faculty advisor within the first week of admission. The student and faculty advisor jointly arrange meeting hours. For additional information about faculty advisor arrangements, contact the program of interest.

Student Education and Services Center (SESC)
The Student Education and Services Center is located on the first floor of the Keck Building. The Center provides tutoring in specific subject areas. A Career Center, the Charles Drew Student Government (CDSG), and a fully equipped computer lab are also located in this facility. The University's pre-admissions assessment examination in reading, writing, and mathematics are computer-based and administered to prospective students at their convenience. Pre-enrollment counseling and the service learning program also are administered through the center. For additional information, please call (323) 563-5934.

Clinical Education Center
The College's Clinical Education Center provides several new fully equipped physical examination classrooms and group study areas. This physical diagnosis and clinical education center is shared by the physician assistant, medical assistant, phlebotomy tech I, certified nursing assistant, and pharmacy technology programs. For more information, call (323) 563-5928.

Student Activities & Organization
The Office of Student Affairs sponsors and co-sponsors a number of events, activities and services throughout the school year. The purpose of these activities is to provide the students with an opportunity to develop leadership skills, special interests and cultural competency. A typical list of programs for the year might include Student Government Activities, Cinco de Mayo events, Program Awareness Day, Career Day and the Oaths & Honors ceremony.

The Charles Drew Student Government (CDSG) is the official student government organization. The CDSG elects officers from the current student body and appointed program representatives. Students participate in scheduled monthly meetings where they determine budgetary expenditures, establish and review student related policies, plan and coordinate events and activities that benefit the entire student body.

The members of the CDSG also sit on various University and College of Science and Health policy-making committees, such as the University Budget Committee and the College of Science and Health's Student Academic Performance Promotion with Judiciary Committee (SAPPJC).

All students pay a one-time student service fee that entitles them to membership in the CDSG organization. This membership allows students to participate in all programs, events and activities that are sponsored or co-sponsored by CDSG.

Student Government Election
The Charles Drew Student Government (CDSG) sponsors a campus-wide student government election during the Spring Semester for the upcoming school year. All currently enrolled College of Science and Health students who are in good standing are eligible to participate in the CDSG election.

Eligibility Requirements for CDSG Candidates:
Candidates for an elected office must complete the required nominating application and meet the eligibility requirement as stated in the CDSG By-Laws before candidacy is approved by the Office of Student Affairs.

CDSG Officers

The CDSG Executive Council consists of nine elected student leaders: President, Vice-President, Secretary, and Treasurer as well as three members of the college's SPPCP committee and two members of the Student Affairs Committee. The nine-member CDSG Executive Council and each program's two student representatives make up the Legislative Council for the Charles Drew Student Government.

Student Clubs and Organizations

All student clubs and organizations are supervised by the Office of Student Affairs.

The University Ambassadors (Service Organization)
Twelve to fifteen College of Science and Health student volunteers provide service to the University in a variety of ways, conducting campus tours for visitors and guests, assisting candidates for employment at the University and ushering at graduation and other campus events. These students can be identified on campus by their distinctive black or gold blazers with Charles Drew University emblem on the lapel. For more information, please call (323) 357-3638.

Student Affairs Office

The Office of Student Affairs desires to promote an environment conducive to academic growth and seeks to eliminate educational, social, cultural, economic and physical barriers that would keep students from reaching their educational target.

The Student Affairs Office in the College of Science and Health assists students in clarifying, and reaching their personal, career and educational goals. Current student support programs include enrollment assistance and matriculation services, counseling, both personal and academic, financial aid and scholarship information, career development and job search training and information, group and individual tutoring; study skills, workshops, developmental courses, computer assisted instruction in both basic skills development and supplemental instruction, first year student orientation, pre-enrollment assessment testing, general academic and career testing, and Service/Service Learning activities.

Academic Support

Student Education and Services Center Staff

SESC Manager
Linda Towles (323) 563-9351
Testing/Basic Skills Coordinator
Harold Abramowitz, M.F.A. (323) 357-3446
Audio Visual Technician
Janet Palacio, BS (323) 563-4886
Director of Student Education and Services
Victoria Franklin, MBA (323) 357-3690

The Student Education and Services Center is located on the first floor of the Keck Building. The center offers a variety of services to students, faculty and staff:

- Pre-Admission Assessment Examinations
- Tutoring
- College Learning Skills Workshops
- Community Service / Service Learning
- Academic Counseling
- Computer-Assisted Instruction
- A fully-equipped computer library with a broad variety of computer programs
- A Career Center

In addition to the above, the Scholarship Office and Student Government office are located in the Center. For additional information, please call (323) 563-5934.

Student Complaints and Grievances

Students who have complaints against other students should report their complaints to their College's Director of Student Affairs. Students who have a complaint against a staff member should report the complaint to the staff member's supervisor. If such a report would be uncomfortable or otherwise, inappropriate, the student should contact the Dean for the College of Science and Health.

Students who have a complaint against a College policy or action which is alleged to have violated the students' rights should contact the program director. If the student is not satisfied that the matter is resolved at the program director level, the student may request a hearing before the Student Academic Performance, Promotion and Judiciary committee. The request for a grievance hearing should be submitted in writing to the committee chair within 10 business days after an initial conference has taken place with the appropriate director. The student will be notified by the committee chair in writing of the hearing. (It usually takes 7 business days after receipt of written request.) Once a student's name appears on the committee's agenda and a decision has been rendered, the student has the right to appeal the decision.

The steps involved in the appeal process are delineated as follows:

1. The student will have no more than 30 days to appeal the committee's decision. This appeal is to the Dean of the College of Science and Health. The Dean may uphold the decision of the committee and no further review will be necessary. If the Dean does not uphold the committee's decision, numbers two (2) and three (3) below will apply.
2. The Dean may appoint an *ad hoc* committee to hear the appeal. The members of this committee shall be faculty members who have not been involved in the original decision in question. The chairperson of the committee shall present its findings to the *Ad Hoc* Appeal Committee but shall not sit as a voting member of said committee. The *Ad Hoc* Appeal Committee, with the approval of the Dean, may have legal counsel present.
3. The *Ad Hoc* Committee shall be empowered to call members of the original committees as witnesses and other appropriate members of the faculty and shall have authority to review records pertaining to the student's appeal. The *Ad Hoc* Appeal Committee shall report its decision directly to the Dean of the College of Science and Health, one week after the receipt of the appeal. The Dean will inform the student in writing as to the outcome of the appeal. Students shall have the right to have their academic records treated in a confidential and responsible manner as required by the Family Education Rights and Privacy Act of 1974.

Academic Policies

Note: For MPH graduate academic policies, refer to academic policies contained in the Master of Public Health section of this catalog.

Independent/Directed Study

Description: Independent/directed study allows individualized coursework to be designed and tailored to meet a student's particular needs. Enrollment in independent/directed study courses requires prior program approval. The student may not be required to be on campus while completing the work. Independent/directed study courses involve supervised independent study and/or research in a subject area proposed for in-depth study. Courses may comprise special study, directed readings, and/or directed research structure as determined by the instructor and student at the time of initial proposal.

Policy: Independent study courses are open to juniors, seniors and graduate students. A maximum of eight units are permitted, unless individual program guidelines specify otherwise. Permission of the instructor is always required.

Procedure:
1. Students enroll in the course at the beginning of each semester by completing the registration form, which is available in the University's Registrar's Office or program office;
2. Students obtain approval (signatures) of both the instructor and the program director; and
3. Students return the complete registration form to the Registrar's Office for processing.

Catalog Rights

Students pursuing a degree or certificate must meet the curriculum requirements for the program as outlined in the catalog at the time of admission or readmission to Charles Drew University. Students are responsible for knowing program requirements. Students may graduate under the general education requirements and graduation requirements in effect at the time of their admission as long as they have maintained continuous enrollment, or under the requirements in effect from the time continuous enrollment is established and maintained. Continuous enrollment is defined as enrollment in the fall, spring, and summer (where applicable) semester sessions of each academic year.

Students are required to meet state certificate or licensure requirements, as well as those stipulated by accrediting bodies, when applicable.

Program Changes

All program changes must be made within the time periods specified in the academic calendar at the end of this catalog and must be approved by the course instructor and the student's faculty advisor. When approval signatures from Program Director and instructor have been obtained, add/drop forms must be turned into the Registrar's Office for processing.

Adding Courses

During any academic semester, students may add courses to their official study list within the time periods detailed in the academic calendar at the end of this catalog. Courses may not be added after these deadlines. To add a course, the student must complete an add/drop form and the change must be approved by the course instructor and by the student's faculty advisor. When all changes to the add/drop form have been approved, the student must submit the form to the Registrar's Office before the deadline detailed in the academic calendar for that semester for processing.

Dropping Courses

To formally drop a course from an official study list, also known as withdrawal from a course, students must complete an add/drop form and have the change approved by the program director. Add and drops must be signed by the instructor of the course and the program director of the student's major. When all changes to the add/drop form have been approved, the student must submit the form to the Registrar's Office for processing.

Students may drop courses from their official study list within the time periods specified in the academic calendar at the end of this catalog. Students are responsible for all courses appearing on their official study list; failure to drop courses in the manner outlined, including outside the applicable time limits, will otherwise result in a failing grade.

Medical Withdrawals

Permission to drop courses for health reasons must be requested in writing and supported by the student's physician and program director. Requests of this nature must be presented to the student's program director prior to the final examination. Under no circumstances will a medical withdrawal be considered after the final examination has been taken.

Repeating Courses

Students may repeat courses in which substandard grades (less than a C) were earned. If the course is required for graduation, students who receive an NC grade must repeat the course for credit. Under no circumstances will additional units or G.P.A. credit be given for repeated courses in which a C or higher is earned.

If a course is repeated in which a substandard grade was earned, the grade received in the repeated course is substituted for the earlier grade in the computation of units attempted and G.P.A. The previous grade, which remains on the record, is discounted from G.P.A. calculations.

Cancelled Classes

Classes may be cancelled at the discretion of the College. Students enrolled in a cancelled class will be permitted to enroll in other open classes.

Students who have a class or classes cancelled by the college because of low enrollment are eligible for a full refund of tuition paid for those classes. To receive the tuition refund, the student must complete a course drop form that can be obtained in the Registrar's Office.

Final Examinations

A final examination is required in each course during the scheduled examination period, except in those courses in which the program has previously determined that no examination will be given. Since the final examination week is part of the semester hour requirement, the period scheduled for final examinations is used either for the final examination in the course **or as an instructional period.**

Repeating Final Examinations

The College's policy regarding re-examination in a course's final examination is specific. This policy does not apply to competency-based skills development courses, clinical learning courses, or courses in which there is no scheduled final examination. For all other courses, any student achieving a final course grade of C- or lower can request one retake of the final course examination if both of the following conditions exist:

1. The student has achieved a passing grade (as determined by the criteria of the program of matriculation) for all coursework completed prior to the final course examination; and

2. The student has not been absent without valid and approved reasons from more than 25 percent of all scheduled class sessions.

Where the aforementioned conditions exist, the student will have the request granted if either of the following reasons are applicable:

1. The student has experienced personal illness (as documented by physician certification); or

2. The student has encountered family illness or extenuating circumstances (e.g., death in the family or financial hardship).

Students must request re-examination in writing within seven days of grade posting. The re-examination will be administered to the student 15

days after receipt of the request. In all cases, the final course grade will be no higher than C.

Concurrent Enrollment

Since Charles Drew University is an independent, degree-granting institution, students are not required to enroll at two institutions simultaneously. While enrolled in an academic program at Charles Drew University, students may elect to enroll concurrently at another college or university. If a student chooses to enroll concurrently in another institution, college credit can be awarded only from one institution for courses applicable to the major. By the end of the first year, students should determine at which institution they will pursue a degree.

Academic Probation

Students will be placed on academic probation if their G.P.A. for the semester is less than 2.00 on a 4.00 scale, or if their cumulative G.P.A., computed by the total of all courses undertaken, is less than 2.00 on a 4.00 scale.

Dismissal from the University

Students who fail to achieve the required academic standards will be placed on academic probation. Students who fail to achieve the required academic standards while on academic probation will be dismissed.

Students may appeal an academic dismissal and should discuss the preparation of such an appeal with their faculty advisor. The Student Academic Performance, Promotion and Judiciary Committee (SAPPJC) reviews all appeals and makes final determinations unless the Dean disagrees with the process or decision. In such cases, the Dean may appoint an *ad hoc* committee to review the appeal. The decision of the *ad hoc* committee is final and the Dean will so inform the student in writing.

Students dismissed for ethical or behavioral reasons may not be readmitted. Special conditions may apply. Tuition and fees will be refunded according to the University refund policy.

Students who withdraw from the University while on academic probation will be automatically dismissed. Students who have been dismissed or who have withdrawn while on academic probation may not be readmitted as full-time students until they have been separated from the College of Science and Health for at least one semester. Dismissed students may be permitted to take a maximum of two courses at their expense as unclassified students during the dismissed period. For more information, refer to the re-admission policy for dismissed students.

Academic Evaluation

Throughout their enrollment, students are evaluated in the following four areas: content knowledge, communication skills, technical skills, and professional behavior. Students may receive one or more of the four types of evaluation in any one semester. Individual course syllabi will outline the components of the final grade for each semester.

Content Knowledge

Students are given regular written examinations throughout the program. Exams are based on the stated objectives of the individual courses each semester. Questions are structured to approximate the scope and depth of the certifying/registration examination, where applicable. Exams are intended to evaluate specific facts as well as applied knowledge of the didactic materials. Mastery of didactic information is dependent on the integration of problem-solving techniques, deductive/inductive reasoning and critical thinking skills. Utilization of these strategies is also evaluated.

Communication Skills

This component measures a student's ability to collect pertinent data, for example, through patient interviews, and to convey health information to patients, clients, community residents, and other health professionals. Students are required to make formal presentations throughout their training. These presentations may include patient group counseling, employees' in-service, student seminars, and medical rounds. To demonstrate competence in writing, students are required to complete case studies, essays, term papers, and journal abstracts.

Technical Skills

Depending on the requirements of their respective programs, students are required to demonstrate competency in varied types of measurements and examination procedures, as well as in laboratory techniques. Clinical skills may include anthropometric measurements, physical examination techniques, and equipment operation . All students must be able to operate a computer and to perform program specific tasks, such as word processing and database access.

Professional Behavior

Each student is expected to exemplify professional behavior with patients, faculty, fellow students, and other professionals. At the end of each clinical assignment, students in clinical programs are evaluated by their supervising clinical instructor on selected professional behaviors. These behaviors include, but are not

limited to, attendance and punctuality, personal appearance, cooperation, ability to accept criticism, interpersonal relations, perseverance, initiative, and industry. The ability to demonstrate empathy and compassion to the plight of the medically underserved patient in particular is encouraged and evaluated.

Use, possession, distribution or being under the influence of alcoholic beverages, illicit drugs or other controlled substances while on campus or in connection with college activities are prohibited.

Grading System

The following definitions and policies are used by the College of Science and Health in evaluating student performance in all courses. Students are responsible for all registered courses. Failure to drop a course in the manner outlined in this catalog will result in the assignment of a failing grade.

Letter Grades and Grade Points (credit courses): Student performance in each course is reported by the instructor at the end of each semester by one of the following grades (with the grade points earned) on the faculty grade sheet.

Grade	Description	Points
A+	Excellent	4.00
A	Excellent	4.00
A-	Excellent	3.70
B+	Above Average	3.33
B	Above Average	3.00
B-	Above Average	2.70
C+	Average	2.33
C	Average	2.00
C-	Below Average	1.70
D+	Below Average	1.33
D	Below Average	1.00
D-	Below Average	0.70
F	Failure	0.00

Incomplete (I)

An incomplete designation may be assigned if the following conditions apply: 1) a student is justifiably unable to complete a defined portion of coursework after 75 percent of the course has been completed; and 2) a student has made satisfactory progress in the class up to that point. An incomplete grade indicates that course credit has been delayed. Incomplete designations are not used in calculating G.P.A. The student must arrange for completion of the required work with the instructor outside of the usual class time. Incompletes are removed when a definite grade for the course is assigned by the instructor and a change of grade form has been filed with the University's Registrar's Office. Incompletes cannot be removed by repeating the course. If an incomplete is not removed within one semester from the date of grade assignment, a failure (F) grade will automatically be recorded on the student's permanent record as the official grade for the course.

Report Delayed (RD)

The report delayed (RD) designation is a temporary mark given to a student in cases where there is outstanding work (i.e. completion of field hours, final exams, etc) at the end of the grading period. The RD must be replaced by a final course grade within six weeks of the end of the semester in which the grade was assigned. RD designations that are not replaced by this deadline lapse to a grade of F (or NC if the RD designation was applied to a credit/no credit course).

Unauthorized Incomplete (U)

Assignment of an unauthorized incomplete indicates that an enrolled student did not officially withdraw from a course and failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments, or course activities, or both were insufficient to make normal evaluations of academic performance possible. The U grade is equivalent to an F and will affect a student's G.P.A. as such. For a credit/no credit course, a grade of NC will be applied.

Withdrawal from a Course (W)

To withdraw from a course, students must complete an add/drop form and have the change approved by the course instructor and by the program director. When all changes to the add/drop form have been approved, the student must submit the form to the Office of Finance as wells as the Registrar's Office for processing.

A notation of W is recorded on the academic record of the student who withdraws from a class within the time periods specified in the academic calendar at the end of this catalog. A "W" grade is not counted in G.P.A. calculations.

Failure to complete this process when leaving a class in the University will result in the assignment of a failing grade.

Withdrawal from the University (W)

Students who become ill, who experience personal difficulties, or whose lack of interest interferes with their concentration on college work, are encouraged to withdraw completely from the University. Failure under such conditions can only make an eventual re-

turn to college more difficult. To withdraw from courses without permanent record, students must file a withdrawal form by Friday of the third week of instruction. Courses dropped through the withdrawal process during the fourth through the eighth week of a fall or spring semester, or during the fourth through the sixth week of summer semester, will be marked with a W and not counted in calculating GPA's.

The program director's signature is required to withdraw from the term. Withdrawing students must return books to the library and all equipment to the program. Students who are unable to return to Charles Drew University to withdraw in person can download the withdrawal form from http://registrar.cdrewu.edu. Tuition refunds will be determined by the student's withdrawal date.

Students who stop attending without following the above procedures are considered to have withdrawn unofficially and will receive a U for each course, which is equivalent to an F in computing the G.P.A.

A student with a GPA below the minimum required for continued matriculation at the time of withdrawal will be considered as having been dropped for poor scholarship. Under no circumstances will a withdrawal be approved after the final examination has been given.

Repeating Courses

Courses can be repeated in accordance with program and college policies.

Administrative Withdrawal

If a registered student does not attend three consecutive class days without any communication to the instructor or advisor, the instructor has the authority to execute an administrative drop whereby the student's name will be removed from the roster. If a student misses two or more consecutive class sessions without communication after the deadline to add classes and by the last day to drop a class, the instructor has the authority to execute an administrative drop. A designation of "W" will be recorded on the student's transcript. Administrative drops submitted after the last day to officially drop a course will result in a failing grade.

Grading for Pass/Fail Courses

Credit (CR) and No Credit (NC) grades can be used for pass/fail courses only. Grades are recorded on transcripts. CR/NC grades are not computed in either semester or overall G.P.A.

Credit (CR)
Equivalent to grades A through C

No Credit (NC)
Equivalent to grades C- through F

Satisfactory Progress (SP)

A satisfactory progress (SP) grade indicates that work in progress has been evaluated as satisfactory to date, but that assignment of a CR or NC grade must await completion of additional coursework. All coursework must be completed within one calendar year of the date on which an SP is assigned.

Work In Progress (WP)

A work in progress grade indicates that assignment of a CR or NC grade is deferred until completion of a course sequence. A mark of I will be given in lieu of final grade .

Testing Out of Course

Some programs permit students to earn credit for certain courses by taking an examination. When the student, course instructor, and program advisor believe the student has adequate preparation, an examination covering all the topics of the course may be taken at the beginning of the semester in which the student is registered for the course. Passing these examinations permits the student to enter into more advanced study or excuses a student from completing an entire required course. A student must do the following to receive a grade in a course without completing the course:

1. Enroll in the course; and
2. Successfully pass, with a C better, an examination administered by the faculty at a time agreed upon by both parties.

The faculty member administering the examination is responsible for submitting the student's final grade. If the student fails the examination, the student is required to complete the course.

Credit by Examination (CE)

For a student in good academic standing (cumulative G.P.A. 2.00) to receive credit for a course without registering for the course, the student, upon approval of the instructor and program director, must successfully pass the challenge examination for the course. This is done without enrolling in the course. If the student earns less than a C on the examination, a mark

of NCE (no credit by examination) will be placed on the student's academic record. The student will be required to enroll and take the course if it is a required course.

To be eligible for CE, students must have completed a minimum of nine units at Charles Drew University of Medicine and Science. The student applies for credit by examination between the first two weeks of the semester. Program courses cannot be taken for CE. A maximum of three units for certificate programs, six units for associate programs, and nine units for bachelor's programs can be taken for CE. CE courses are not eligible for financial aid.

Courses previously taken or audited cannot be challenged, nor may a student challenge the same course more than once. No credit is given when the purpose of an examination is to determine the proper level at which students should begin their academic studies (e.g., foreign language or mathematics assessment).

Students who satisfy a course by challenge will receive the approved unit credit on their academic record and a mark of CE. Letter grades and grade points will not be given. Students who unsuccessfully challenge a course will receive a mark of NCE on their academic record, but NCE will not affect the G.P.A. A $35 administrative fee* will be charged by the Registrar's Office for taking the challenge examination.

*Fee may change without prior notice.

Credit Earned at Other Institutions

Coursework taken at other institutions is evaluated by the end of the student's first semester of matriculation at Charles Drew University. The Registrar's Office will mail or issue the evaluation directly to the student. Earlier evaluation may be given depending on individual circumstances upon the program director's request.

Generally, all college-level liberal arts courses taken at an accredited institution in which the student earned a C or better are accepted for credit up to the maximum allowed. Students must list all institutions attended on the admissions application and submit official transcripts from each. Failure to do so will result in denial of transfer credit for courses taken at schools not listed.

The student is responsible for submitting updated transcripts for coursework that was in progress at the time the student filed an application and prior to being accepted. Updated official transcripts should be sent to the Registrar's Office.

Note: Quarter system courses will be converted to the semester system with the following calculation: Quarter Units x 0.667 = Semester Units.

Auditing Courses (AU)

Students must file an application in the Registrar's Office to obtain permission to audit a course. Auditors must register in the normal manner and pay a fee of $35*. No credit or grade will be given for audited classes. Most importantly, audited courses cannot be repeated for a grade by registering for the course in a subsequent semester and paying the full tuition and fees. Auditor status cannot be changed to credit status. Likewise, credit status cannot be changed to auditor status.

Non-matriculating students may audit courses with approval of the program director and the instructor. Non-matriculating students are required to pay the corresponding tuition and fees.

*Fee may change without prior notice.

Passing Grade

Students must receive a grade of C or better in all major courses to remain in good academic standing. A grade of C- is unsatisfactory for financial aid and program promotion. While a grade of D is substandard, it may count as a passing grade for some general education courses. Students who earn a D- or below in a general education course must retake the course.

Grade Appeal

When a student considers a final course grade inaccurate, the student should confer with the instructor regarding the accuracy of the grade received within the first three weeks of the semester following receipt of the grade. At this time, the student and instructor must together review all class material pertinent to the grade for errors to be corrected. If the student is not satisfied, or if the instructor does not confer with the student within the first three weeks of the semester, the student should immediately contact the Dean and submit a written appeal consisting of a statement containing the factual reasons, and basis for the complaint, accompanied by any supporting documentation. The Dean will direct the appeal to the Student Academic Performance, Promotion and Judiciary Committee (SAPPJC) for a decision. The student has the right to appear before the committee and to request in writing that the program director appoint a student as a member to the Student Academic Performance, Promotion and Judiciary Committee (SAPPJC). The committee's decision must be submitted to the Dean within the first five weeks of the semester. If the Dean does not favor the committee's process or decision, an

ad hoc committee can be appointed by the Dean to review the appeal and arrive at a decision. The *ad hoc* committee must reach a decision within one week of receipt of the appeal. Its decision is final.

Grade Change

Once a grade has been submitted to the Office of the Registrar, it can be changed only by the instructor of record, if the change is due to miscalculation or error, within 1 semester (16 weeks) of the student's enrollment in the course. The change must be initiated by the instructor on the grade change form that can be obtained from the Office of the Registrar. The change must be approved by the program director, signed by both the instructor and the program director, and brought to the Office of the Registrar by the instructor. If the instructor of record is no longer employed by the university, the program director will act on the behalf of the former instructor. The change will be recorded on the student's official academic record. However, if the grade change is due to a student's challenge of the assigned grade due to misconduct, arbitrariness or prejudice, then the student needs to go through the academic appeals process and the final results of the academic appeals process will be recorded.

Semester Grade Point Average

The semester G.P.A. is the total number of grade points earned divided by the total number of units carried by the student. Grades A through F and U are included in G.P.A. computation.

Cumulative Grade Point Average

A student's cumulative G.P.A. is calculated by dividing the total number of grade points earned by the total number of units pursued, excluding courses that have been assigned the grades of AU, CE, CR, I, NC, NCE, RD, SP, W, WP, or grades for courses that have been repeated. When a course is repeated, the units pursued, units earned, and grade points of previous attempts are excluded in the calculation of cumulative averages. All courses pursued and grades earned at Charles Drew University will become and remain a part of the student's academic and official permanent record.

Grades

All grades reported to the Registrar's Office are cumulative for the entire semester to date. Grades represent the instructor's final evaluation of a student's academic achievement and can be changed only by the instructor of record. Final semester grades are mailed to students two weeks after the end of every semester. Grade reports that are not received by mail may be requested at the Registrar's Office. A photo ID is required.

Course Numbering System

Courses in the College of Science and Health are numbered according to the following system:

000-099	Academic Enhancement Courses (No credit toward degree or certificate)
100-199	Lower-division courses of freshman level
200-299	Lower-division courses of sophomore level
300-399	Upper-division courses of junior level
400-499	Upper-division courses of senior level
500-699	Graduate level courses

Except in 000-099 courses, the first digit represents the year (e.g., freshman, sophomore) and the second digit represents the topic area of general education categories (except MPH categories):

1. Communications and critical thinking
2. Math and science
3. Humanities and the arts
4. Social and behavioral sciences
5. Integrated biopsychosocial being

The third digit represents sequence (at the program's discretion).

Some courses have letter suffixes such as A, B, C, and D, indicating the order in which courses must be taken.

The suffix S is used to represent a self-paced course.

Course Load

During a regular semester, an undergraduate schedule of 12 to 18 units is considered a normal course load. Students may enroll for a maximum of 21 semester units if: 1) they have earned a minimum G.P.A. of 3.3 on all work pursued during the previous semester; 2) they have not received any grade less than C; and 3) they are recommended by their program director to the Dean. Students will not be permitted to register for more than 21 units during any regular semester.

Course Load for Students on Academic Probation

Undergraduate students on initial scholastic probation, extended scholastic probation, or who are returning to the University after a period of absence caused by academic suspension will be allowed to pursue a maximum of 15 semester units during any semester until the G.P.A. has been restored to at least 2.0 on a 4.0 scale.

Course Load for Provisional Students

Students admitted provisionally will be permitted to register for two semesters as full-time students. For more information, refer to the provisional students section of this catalogue.

Degree Requirements

Each undergraduate program of study leading to a degree must include the College's general education and core curriculum requirements as outlined below. Not all courses may be credited toward fulfillment of the general education and core curriculum requirements. Students must observe the following restrictions that apply to such units:

1. Basic skills courses (developmental and remedial level courses, such as pre-algebra and English fundamentals) cannot be applied toward the A.S. or B.S.
2. No professional course in the student's major program of study may be used to satisfy general education requirements.
3. Courses in which previous credit has been received may not be applied a second time.
4. In some cases, students may satisfy core requirements and general education elective requirements simultaneously, although doubling of credit value is not permitted.

Graduation Requirements

Associate of Science (A.S.) Degree

Terms regarding graduation requirements in the Associate of Science programs are detailed below:

Unit Requirement: Total units required for an A.S. vary according to the general education, elective, and major course requirements.

Residence Requirement: Prior to receiving an A.S., students must have completed a total of at least 15 units in residence (including at least half of these in the required major).

G.P.A. Requirement: Achievement of a minimum overall G.P.A. of 2.0 on a 4.0 scale.

General Education Requirement: Completion of the general education requirements.

Program Requirement: Completion of requirements for the major.

Unrestricted Elective Requirement: Completion of one lower or upper-division three unit elective course. An unrestricted elective is any course a student wishes to complete for credit toward a degree other than those courses taken that fulfills specific general education, core curriculum, and program curriculum requirements. This is a residency requirement and cannot be transferred from other institutions, without prior written consent of the department chair or program director.

Graduation Check: Students who expect to receive degrees and/or certificates at the end of the academic year must make an appointment with the Registrar's Office for a graduation check. A graduation check may already be on file and a copy mailed to the student. This check must be complete **two semesters** prior to the proposed date of graduation.

Graduation Clearance: All graduating students must complete a clearance form and receive appropriate departmental signatures before receiving any degrees, certificates, or transcripts. Furthermore, students who have received financial aid must have an exit interview with the financial aid administrator. Students will be advised as to the status of their loans, the repayment amount, payment schedule, their rights and responsibilities, and truth in lending laws. This clearance procedure should be initiated **30 days prior to the last day of school before graduation**. Any student who has not met the financial obligations to the University will not receive verification from the University.

Faculty Approval of Candidates for Graduation: The verified list of candidates for graduation is sent to the program director by the registrar and must be confirmed by the faculty of each program. Upon confirmation by program faculty, the list is submitted to the Dean for review, approval and submission to the registrar. The registrar then submits the verified list of candidates for graduation to the executive vice president for approval from the board of directors. Students who will complete all graduation requirements by August 31 will be permitted to walk in the June commencement ceremony of that same year.

Bachelor of Science (B.S.) Degree

Terms regarding graduation requirements in the Bachelor of Science programs are detailed below:

Unit Requirement: Total units required for a B.S. vary according to the general education, elective, and major course requirements. Students should consult this catalog for specific degree requirements in the

sections concerning general education and the individual programs of the University.

Residence Requirement: Prior to receiving a B.S., students must have completed a total of at least 30 units in residence (including at least half of these in the required major).

G.P.A. Requirement: Achievement of a minimum overall G.P.A. of 2.0 on a 4.0 scale.

General Education Requirement: Completion of the general education requirements.

Program Requirement: Completion of requirements for the major.

Unrestricted Elective Requirement: Completion of one lower and two upper-division three unit elective courses. An unrestricted elective is any course a student wishes to complete for credit towards a degree other than those courses taken that fulfills specific general education, core curriculum, and program curriculum requirements. This is a residency requirement and cannot be transferred from other institutions without prior written consent of the department chair or program director.

Graduation Check: Students who expect to receive degrees and/or certificates at the end of the academic year must make an appointment with the Registrar's Office for a graduation check. A graduation check may already be on file and a copy mailed to the student. This check must be complete **two semesters** prior to the proposed date of graduation.

Graduation Clearance: All graduating students must complete a clearance form and receive appropriate departmental signatures before receiving any degrees, certificates, or transcripts. Furthermore, students who have received financial aid must have an exit interview with the financial aid administrator. Students will be advised as to the status of their loans, the repayment amount, payment schedule, their rights and responsibilities, and truth in lending laws. This clearance procedure should be initiated **30 days prior to the last day of school before graduation**. Any student who has not met the financial obligations to the University will not receive any verification from the University.

Faculty Approval of Candidates for Graduation: The verified list of candidates for graduation is sent to the program director by the registrar and must be confirmed by the faculty of each program. Upon confirmation by program faculty, the list is submitted to the Dean for review, approval, and submission to the registrar. The registrar then submits the verified list of candidates for graduation to the executive vice president for approval from the board of directors. Students who will complete all graduation requirements by August 31 are permitted to participate in the June commencement ceremony of that same year.

Master of Public Health (MPH)

Terms regarding graduation requirements in the Master of Public Health program are detailed below:

Unit Requirement: Total units required for MPH is 42 graduate seminar credit hours.

G.P.A. Requirement: Achievement of a minimum overall G.P.A. of 3.0 on a 4.0 scale.

Program Requirement: Completion of requirements for the major.

Graduation Check: Students who expect to receive degrees and/or certificates at the end of the academic year must make an appointment with the Office of Student Administration and Services. A graduation check may already be on file and a copy mailed to the student. This check must be complete two semesters prior to the proposed date of graduation.

Graduation Clearance: All graduating students must complete a clearance form and receive appropriate departmental signatures before receiving any degrees, certificates, or transcripts. Furthermore, students who have received financial aid must have an exit interview with the financial aid administrator. Students will be advised as to the status of their loans, the repayment amount, payment schedule, their rights and responsibilities, and truth in lending laws. This clearance procedure should be initiated **30 days prior to the last day of school before graduation**. Any student who has not met their financial obligations to the University will not receive verification from the University.

Faculty Approval of Candidates for Graduation: The verified list of candidates for graduation is sent to the program director by the registrar and must be confirmed by the faculty of each program. Upon confirmation by program faculty, the list is submitted to the Dean for review, approval, and submission to the registrar. The registrar then submits the verified list of candidates for graduation to the executive vice president for approval from the board of directors. Students who will complete all graduation requirements by

August 31 will be permitted to walk in the June commencement ceremony of that same year.

Attendance Policy

Student attendance is required at regularly scheduled class sessions, laboratories, and clinical training sessions. Attendance may be used in assessing grades and meeting state requirements. Each instructor will determine a class attendance policy, which must be specified in the course syllabus. Excused absences, including absences due to participation in an approved University activity, will not result in a penalty provided that the student satisfactorily makes up the missed work. If a student does not comply with the policy on file, the instructor has the right to assign a grade consistent with the instructor's stated policy. The Registrar's Office will notify instructors of unusual circumstances of health or family problems that are brought to their attention.

Vacations

The College of Science and Health does not have regularly scheduled vacations for faculty or students. Vacations may be taken during semester breaks and during the spring break.

Holidays

Charles Drew University observes 12 holidays each year. Students on clinical rotations may occasionally observe a different holiday schedule. Students on clinical rotation may be required to make up holiday time and are asked to check their respective program policy regarding holidays.

Sick Leaves

Students who are absent three or more days due to illness may be required to present a doctor's statement to their instructor documenting the illness and the expected date of return. This document becomes part of the student's file. Students are held responsible for the material covered during the period of their illness and must make up all days in clinical rotation missed as a result of their illness.

Administrative Drop

If a registered student does not attend three consecutive class days without any communication, the instructor has the authority to execute an administrative drop whereby the student's name will be removed from the roster. If a student misses two or more consecutive class sessions without communication after the date to add classes and before the date of official drop, the instructor has the authority to execute an administrative drop. A designation of "W" will be recorded on the student's transcript. Administrative drops submitted after the last day to officially drop a course will be processed and result in a failing grade.

Tardiness

Tardiness by students is discouraged in both didactic courses and on clinical rotations. Each instructor will determine a class tardiness policy and make this policy known to each class by recording it in the course syllabus.

Leave of Absence

A leave of absence of less than three months duration may be arranged through the individual programs. Only one leave of absence per program is allowed.

1. Leaves granted for health reasons are obligatory and processed by the program director.

2. Academic leaves are mandated by the Student Academic Performance, Promotion and Judiciary Committee.

3. Voluntary leaves of absence are generally discouraged as an educationally unsound practice and may cause serious scheduling problems to students. Before filing a petition for this type of leave, the student should consider whether the leave request will put him or her in an academically disadvantaged situation (e.g., in terms of scheduling for clinical rotations and/or eligibility for board certification examinations), and whether the leave will influence any loan commitments (e.g., eligibility and time of repayment).

A petition for leave of absence, stating the reason for the request and the period of time that the leave will be active, may be filed with the student's program office. Leave of Absence forms are available in the Registrar's Office.

Conditions of return, extensions, and so on, are handled by petition and are determined by the individual program with review by the Student Academic Performance Committee, the Promotion and Judiciary Committee, and by approval from the Dean.

Students who are granted leaves of absence should be aware that:

1. A student's return to the program earlier than the time allotted is contingent upon space availability and scheduling in the program.

2. Extensions of leave will be reviewed and approved by the individual program.

3. Exceeding leave time approved by the program, Student Academic Performance Committee, and the Promotion and Judiciary Committee without an approved extension cancels any guaranteed permission to return.

Absences

Students will be required to make up any hours or days absent from clinical rotations or laboratory experiences. Make-up time must be approved by the clinical instructor and may be accomplished during vacation, holidays, weekends, other shifts, or on consecutive days. Make-up schedule arrangements are the responsibility of the student.

Academic Records

Transcripts

Academic transcripts will be provided to any Charles Drew University of Medicine and Science student who does not have a financial obligation with the University upon the student's written request. There is a $10.00* charge for the first official transcript and a $2.00* charge for each additional transcript. Transcript processing takes five business days. Students may request 24-hour next business day service for a fee of $7.00* per official transcript and $2.00* for each unofficial transcript. Express mail delivery is available for an additional charge of $13.00 per address.

Academic Degree and/or Certificate

Academic degree and/or certificate will issued to any Charles Drew University of Medicine and Science graduate upon completion of the Clearance Verification Form. Duplication of academic degrees and/or certificates will be issued upon the student's written request. There will be a $10.00* charge for each duplicate. Processing time is four to six weeks.

Identification Badge

Identification badges will be issued to any accepted applicant upon successful registration for their first semester of attendance. Original duplication of an identification badge will be provided to students for a $10.00* fee. For re-admitted students, there will be $5.00* fee to re-issue a student identification badge.

Verification Letters

Enrollment or financial aid verification letters will be provided to students who do not have a financial obligation to the University upon the student's written request. Forms are available in the Office of Enrollment Services. Verification letter processing takes five business days.

Note: No academic records will be released to any Charles Drew University of Medicine and Science student or alumni who have a financial obligation to the University.

* Fee may change without prior notice.

Course Listing by Prefix

Division of General Studies

ATH	Anthropology
ART	Arts
BIO	Biology
CHM	Chemistry
CLS	College Learning Skills
COM	Communication Skills
CPU	Computer Science
ECN	Economics
ENG	English
HIS	History
HSM	Health Services Management
HUM	Humanities
MIC	Microbiology
MTH	Mathematics
PHE	Public Health Education
PHY	Physics
POL	Political Science
PSY	Psychology
SOC	Sociology

College of Science and Health Programs

BMS	Biomedical Sciences
DMS	Diagnostic Medical Sonography
HIT	Health Information Technology
MAP	Medical Assistant
MIT	Medical Imaging Technology
NMT	Nuclear Medicine Technology
PAS	Primary Care Physician Assistant
PTE	Pharmacy Technology
RAD	Radiography
SAC	Alcohol and Other Drugs Studies/ Substance Abuse Counseling
MPH	Master in Public Health

General Education

Rationale for General Education Curriculum

Charles Drew University of Medicine and Science is

a community-centered academic institution that serves underserved communities, among others, through the College of Medicine and the College of Science and Health. One goal of the College of Science and Health is to increase the number of healthcare professionals who practice and teach in underserved areas. Our student body reflects the value we place on diversity. General education is designed and structured to foster an educational climate that provides positive and lifelong educational opportunities for all students entering the University.

The General Education Requirement

Those students who have tentatively decided on a major or who have declared their major should read the respective program statement to determine any particular general education courses that are required or suggested.

Depending on the program of study, students may either take general education courses concurrently with major coursework or complete general education requirements prior to entering the major.

Some programs allow a limited number of general education units to also be counted towards a major. Although this does not lessen the total units required for the degree, it allows for those units to be used as electives.

Electives are units needed beyond those taken to fulfill general education and major requirements. Students may take any elective courses for which they have the necessary prerequisites. No course may be repeated for elective credit unless stated in the course description.

General Education Curriculum

The Division of General Studies in Charles Drew University's College of Science and Health administers the general education curriculum. General education courses are approved by the College's Education and Academic Policy Committee and must satisfy the University's criteria for general education courses. Coursework must:

- Introduce students to the richness and diversity of the various academic disciplines;
- Broaden students' intellectual perspectives as educated members of society; and
- Encourage students to develop commitments to and mutual respect for diverse groups.

This curriculum is designed to provide skills, information, inquiry methods, and intellectual values.

The following categories establish the framework of the University's general education curriculum:

Category A: Communication in English and Critical Thinking

A1. Written Communication: Courses such as English Composition (ENG 111) and expository writing focusing on the rhetoric and stylistics of various forms of essays, with emphasis on the development of unified, coherent, and clearly composed written discourse.

A2. Oral Communication: Courses such as Public Speaking (COM 111) or interpersonal communication focusing on understanding the process and experience of communication.

A3. Critical Thinking: Courses such as Principles of Logic or Argumentation (COM 210) emphasize the relationship between logic and language that explore concepts essential to identifying, analyzing, and evaluating arguments, with attention to deduction, induction, and common fallacies.

Category B: Natural Sciences, Mathematics, and Information Science

B1. Life Science: Biological science courses such as General Biology (BIO 124) and introductory courses in human genetics and physical or biological anthropology with laboratory components that emphasize the observation and description of organisms.

B2. Physical Science: Physical science courses such as General Chemistry (CHM 122) and Introductory Physics (PHY 126) with laboratory components emphasize analytic, quantitative, and qualitative investigation of matter.

B3. Mathematical Concepts and Quantitative Reasoning: Mathematics and quantitative reasoning courses, such as College Algebra (MTH 126) comprise this catalog.

B4. Computer Science: Courses such as Introduction to Computers (CPU 125) provide the foundation and skills in information science and computers via various assignments, problem solving, and research, including word processing, spreadsheets, and database applications.

Category C: Arts and Humanities

C1. Fine and Performing Arts: Creative process and artistic activity coursework, such as Health and Creative Arts (ART 131) and other coursework including painting, sculpture, dance, creative writing, theater arts, photography, and filmmaking.

C2. Humanities: Courses emphasize the understanding of aesthetic, philosophical and cultural principles, such as Introduction to Humanities (HUM 231).

Category D: Social and Behavioral Sciences

D1a. Citizenship I: Courses in United States history (HIS 141)

D1b. Citizenship II: Courses in United States political systems (POL 141)

D2. World Societies and International Cultures: These courses consider individual cultures or multicultural experiences in an international context, such as cultural anthropology, ethnic studies, and cross cultural communication.

D3. Social and Behavioral Science: These courses emphasize individual and human social behavior, such as courses in psychology, sociology, political science, economics, geography, and history.

Category E: Core courses in clinical versatility, which must be completed within the College of Science and Health.

E1a. Medical Spanish I: Courses in conversational Spanish that offer vocabulary and practical dialogues needed by people working in healthcare (COM 233).

E1b. Medical Spanish II: Continuation of Medical Spanish I (COM 234).

E2. Health Seminar and Community Service Learning: These courses involve actual voluntary service learning in underserved communities in an attempt to create within students a personal commitment to these communities. Community service hours must be completed prior to starting the health seminar. The health seminar portion of this course involves the integration of knowledge and skills to create an awareness, sensitivity, and knowledge of the needs of underserved communities.

E3. Community Health: Course in Community Health Issues that introduce students to the areas of community health including the medical, legal, and social aspects of areas such as substance abuse, communicable diseases, intentional injury, and death. Integrates Healthy People 2010 objectives and strategies for promoting health in underserved communities with all course objectives.

Category F: Interdisciplinary Approaches to Healthcare

F1. Courses emphasize interdisciplinary approaches to understanding how we know the world with special attention to education and health care, emphasizing the human being as an integrated physiological, psychological, and social organism.

Checklist of General Education and Core Requirements for Associate of Science Degree (29 units)

Category A: Communication in the English Language and Critical Thinking (6 units required)

Subject Area	Units	COSH Equivalent
A1	3	ENG 111
A2	3	COM 111

Category B: Physical Universe and Mathematical Concepts (10 units required)

Subject Area	Units	COSH Equivalent
B1/B2	4	BIO 120, or BIO 124, or CHM 122, or PHY 126
B3	3	MTH 121, or MTH 125, or MTH 126
B4	3	CPU 125

Category C: Arts and Humanities (3 units required)

Subject Area	Units	COSH Equivalent
C1	3	ART 131, or HUM 231, or HUM 232, or HUM 233

Category D: Social and Behavioral Science (6 units required)

Subject Area	Units	COSH Equivalent
D1a	3	HIS 141
D1b	3	POL 141 or
D2	3	ATH 142 or
D3	3	PSY 141, or SOC 141

Category E: Core Courses in Diversity (4 units required – must be completed in residency)

Subject Area	Units	COSH Equivalent
E1	2	COM 233
E2	1	PHE 255
E3	1	PHE 250

Checklist of General Education and Core Requirements for Bachelor of Science Degree (52 units)

Category A: Communication in the English Language and Critical Thinking (9 units required)

Subject Area	Units	COSH Equivalent
A1	3	ENG 111
A2	3	COM 111
A3	3	COM 210 or ENG 112

Category B: Physical Universe and Mathematical Concepts (14 units required)

Subject Area	Units	COSH Equivalent
B1	4	BIO 120, or BIO 124
B2	4	CHM 122, or PHY 126
B3	3	MTH 126
B4	3	CPU 125

Category C: Arts and Humanities (9 units required)

Subject Area	Units	COSH Equivalent
C1	3	ART 131
C2	3	HUM 231, or HUM 232, or HUM 233
C3	3	ART 131, or HUM 231, or HUM 232, or HUM 233

Category D: Social and Behavioral Science (12 units required)

Subject Area	Units	COSH Equivalent
D1a	3	HIS 141
D1b	3	POL 141
D2	3	ATH 142
D3	3	PSY 141, or SOC 141

Category E: Core Courses in Clinical Versatility (5 units required - must be completed in residency)

Subject Area	Units	COSH Equivalent
E1a	2	COM 233
E1b	1	COM 234
E2	1	PHE 450
E3	1	PHE 250

Category F: Interdisciplinary Approaches to Healthcare (3 units required)

Subject Area	Units	COSH Equivalent
F1	3	HUM 330, or HUM 335, or PHE 344, or PHE 352, or PSY 351

Some of the courses in the Program in Biomedical Sciences count towards the G.E. required units, see the corresponding section of the catalog.

[1] - Fulfills GE requirement in Category A
[2] - Fulfills GE requirement in Category B
[3] - Fulfills GE requirement in Category C
[4] - Fulfills GE requirement in Category D
[5] - Fulfills GE requirement in Category E
[6] - Fulfills GE requirement in Category F

*- By permission of the Instructor

General Education Course Descriptions

ANTHROPOLOGY

ATH 142 - Cultural Anthropology[4]
Provides an anthropological perspective of the human species through time and space by focusing on fieldwork studies from a variety of cultures.
Formerly: ANTH 142
Units: 3

ARTS

ART 131 - Health and Creative Arts[3]
Covers creative communication as expressed through poetry, song, drama, and visual media and as related to the influence on people's perception of themselves and their environment. Explores the extent to which these art forms benefit health and recovery.
Formerly: AH 131
Units: 3

BIOLOGY

BIO 025 - Human Anatomy Review and Medical Physiology
Provides a review of human anatomy from the chemical/cellular level to the formation of complex major organ systems. Provides a comprehensive approach to medical physiology to enhance the student's knowledge of organ system integration. Designed to improve learning skills and developmental review, as well as to prepare students for pathophysiology.
Formerly: AP 025
Units: (None) CR/NC

BIO 120 - Introduction to Anatomy and Physiology[2]
Covers the origin of human organ systems, homeostasis, the function of major organ systems and selected diseases that affect each system. Equal consideration is given to anatomy and physiology. Covers current issues relevant to designated organ systems to enhance the students' knowledge of research and basic science contributions.
Formerly: AP 120
Units: 4 (3 lecture units, 1 lab unit)

BIO 124 - General Biology: Principles of Human Biology[2]
Provides a comprehensive study of the human body from the chemical/cellular level to the formation of complex major organ systems.
Units: 4 units (3 lecture units, 1 lab unit)

BIO 320 - Biochemistry
Studies the structure, properties, and metabolism of the constituents of biological systems (amino acids and proteins, carbohydrates, lipids, nucleic acids, and vitamins), the mechanism of enzyme action, ATP generation, information transfer, and the biochemical basis of disease.
Formerly: BCH 320
Prerequisite(s): BIO 120 or BIO 124
Units: 6 (4 lecture units, 2 lab units)

CHEMISTRY

CHM 100 – Basic Chemistry
Introduction to the fundamental concepts of chemistry, atomic theory, electron configuration, periodicity, bonding, molecular structure, reaction stoichiometry, gas laws, and changes in state in preparation for general and advanced classes in biomedical sciences.
Prerequisite(s): H.S. Algebra, passed with a grade of B or better
Units: 3

CHM 122 - General Chemistry[2]
Considers scientific notation, atomic and molecular structure, the periodic table, ionic and covalent bonds, chemical equations, chemical stoichiometry, mole concepts pH concepts, introduction to organic chemistry, and states of matter, solution, acids, bases, and salts.
Prerequisite(s): MTH 121
Units: 5 (4 lecture units, 1 lab unit)

COLLEGE LEARNING SKILLS

CLS 060 - College Reading and Learning Skills
Designed to teach reading comprehension skills by exploring and organizing information, taking notes to find main ideas and supporting details in textbooks and other reading materials. Study skills include listening, note taking, memory and concentration skills, test taking, and research skills. Progression in the course is through a series of instructor supervised workshops and computer-assisted instructional modules.
Prerequisite(s): Pre-admission reading examination.
Units: (None) CR/NC

CLS 300 – Information Literacy Skills for Lifelong Learning
Teaches future healthcare professionals how to identify, evaluate, and synthesize information so that they can remain current with rapidly evolving healthcare practices throughout their careers.
Units: 3

COMMUNICATION STUDIES

COM 111 - Public Speaking[1]
Introduces the fundamental principles, skills, and applications of speechmaking, preparation for public speaking, organization of materials, and presentational techniques, as well as critical listening skills and speech analysis. Provides students with opportunities to deliver various speech types.
Units: 3

COM 113 - Medical Terminology
Emphasizes etymology of disease terms, nomenclature of medical and surgical procedures, use of prefixes, suffixes, word roots, combining forms, and plurality of medical terms.
Formerly: AH 113
Units: 3

COM 113S - Medical Terminology (Self-Paced)
Provides accelerated review of basic medical terminology with modules available from the instructor and a test at the end of each unit to be completed in one to 12 weeks. Intended to assist those studying medicine and health care and who have a need to review or increase their medical vocabulary. Restricted to students with a previous background in medical terminology. Available only in the summer prior to a student's fall entry.
Formerly: AH 113X
Prerequisite(s): *
Units: 3

COM 131 – Conversational Spanish
Emphasizes basic sentence structure, pronunciation, and common vocabulary necessary to develop speaking and comprehension ability needed for conversations in Spanish about everyday topics. Also introduces reading and writing skills and the cultures of the Spanish-speaking world.
Units: 3

COM 210 - Principles of Argumentation[1]
Studies argumentation as a form of critical reasoning by examining the nature of propositions, elements and structure of arguments, and forms and types of arguments concerning current issues in bioethics. Integrates these issues with the concerns of the health sciences professions.
Prerequisite(s): COM 111
Units: 3

COM 233 - Medical Spanish I[5]
Teaches appropriate conversational Spanish to develop a patient-physician relationship with clients. Studies the grammatical principles and sentence structures of realistic and practical dialogues in present situations that medical personnel encounter. Presents specific vocabulary and situations needed by those in the medical field.
Formerly: AH 233A
Pre-requisites: COM 131, one year of high school Spanish, or one semester of college Spanish.
Units: 2

COM 234 - Medical Spanish II[5]
Continues COM 233 by focusing primarily on methods to take a medical history, perform physical examinations, and counsel patients in Spanish to enhance the patient-healthcare provider relationship.
Formerly: AH 233B
Prerequisite(s): COM 233
Units: 1

COM 315 - Effective Communication for Healthcare Professionals
Introduces the concepts and principles of effective communication as they are applied to communication within healthcare contexts. Emphasizes patient-professional relationships, focusing upon relationship building, barriers to effective communication, verbal and nonverbal behavior, cultural communication and ethics of communication.
Formerly: AH 315
Prerequisite(s): COM 111*
Units: 3

COMPUTER SCIENCE

CPU 125 - Introduction to Computers[2]
Designed for students to develop and demonstrate competency in the use of micro-computers. Includes a mixture of activities, including readings, discussions, surveys of available applications and their theoretical basis, hands-on demonstration, and independent study. Provides skills for computers in classroom assignments, problem-solving, patient care, research, and test preparation.
Formerly: AH 125
Units: 3

CPU 126 - Computer Theory and Application for Health Professionals
Designed to introduce students to the major concepts and applications of medical informatics. Includes history and evolution of information processing, elements of the computer system, input/output devices, computer files and databases, programming languages, data management, and ethical issues in computer technology. Teaches applications of computer technology in selected areas of study.
Formerly: AH 126
Prerequisite(s): CPU 125*
Units: 3 (2 lecture hours, 3 lab hours)

ECONOMICS

ECN 201- Macroeconomics
Overview of macroeconomic theory. Examines national accounting, levels of output and employment, money supply, government monetary and foreign exchange, and the international monetary system.
Units: 3

ECN 202- Microeconomics
Overview of microeconomic theory. Examines pricing, resource allocation, distribution, current domestic economic problems, international trade, and alternate economic systems.
Units: 3

ENGLISH

ENG 011 - English Fundamentals
Intensive review of basic English language skills through sentence structure, speech parts, phrases and clauses, punctuation, mechanics, and usage. Offered to students who require English grammar training as a prerequisite for English Composition (ENG 111). Develops students for college level English.
Prerequisite(s): Pre-admission writing examination.
Units: (None) CR/NC

ENG 012 - Introduction to the Essay
Prepares students for English Composition (ENG 111) through intermediate-level study and exercises in vocabulary (structure, semantics, and usage), sentence composition (syntax and style), paragraph development, and basic essay structure.
Prerequisite(s): ENG 011 or an appropriate score on the pre-admission writing examination.
Units: 3

ENG 024 – Expository Writing Workshop
Intensive review of college-level English writing skills through study and exercises in grammar, syntax, and mechanics; as well as practice in essay writing with a focus on purpose, organization, development and style. This workshop is offered to provisionally admitted students who are required to demonstrate junior-level writing competency for regular admission into the College of Science and Health Bachelor's Degree Programs.
Prerequisite(s): Pre-admission writing examination
Units: (None) CR/NC

ENG 111 - English Composition[1]
Introduces the student to written discourse in the form of the essay. Reviews the stages of writing process and the stylistics involved in essay composition. Analyzes texts of various authors and teaches various types of essays composition.
Prerequisite(s): ENG 012 or appropriate score on the pre-admission writing examination.
Units: 3

ENG 112 - Critical Thinking and Text Analysis[1]
This course is an intensive reading and writing course designed to develop the student's ability to think critically, analyze, synthesize, evaluate, and draw conclusions from complex information in a variety of forms and contexts. The primary source material for the course will be texts, that is, textual forms, including, but not limited to, written, cultural, artistic, and various media forms. As the advanced semester of composition, this course will allow students to continue to define their academic reading, writing, and research practice, and to expand upon their knowledge and understanding of fundamental communication theory. The course will also offer opportunities for students to work in collaborative settings in order to broaden their experience in determining effective models for critical and creative thinking, and problem solving.
Prerequisite(s): ENG 111
Units: 3

ENG 314 Writing for Health Care Professionals
Emphasizes professional writing and research methods for students in allied health. Requires students to select, develop, and produce individual and collaborative writing projects from planning through production. Includes organizational or public document projects, such as journal articles, newsletters, a series of health promotion pamphlets, a set of organizational policies and procedures, or a community-based research project culminating in formal proposals.
Formerly: AH 255
Prerequisite(s): ENG 111
Units: 3

HISTORY

HIS 141 - United States History[4]
Explores in survey form the roots of American civilization and culture by focusing on specific problems that have shaped the character, social, and political development of American society.
Formerly: HIST 141
Units: 3

HEALTH SERVICES MANAGEMENT

HSM 306 – Organization and Management of Healthcare Systems
Examines the administrative elements of health services management. Provides background, theoretical concepts, practices, and opportunities for the exploration and discussion of issues and problems in health services management. Provides a workable overall knowledge of health services management as well as particular insight into certain types of health systems.
Units: 3

HSM 311- Introduction to the U.S. Healthcare System
Provides an overview of the United States healthcare system, including topics in health policy, financing, organization, and the institutions of healthcare systems, medical practice, and access to care. Introduces students to the historical and traditional bases of programs, issues, and aspects of healthcare delivery system in the United States.
Units: 3

HSM 312 – Introduction to Health Services Management
Introduces management theories, practices, and organizational dynamics. Emphasizes the application of theories to managing health services and healthcare institutions. Topics include ethical and legal considerations, organizational design and change, strategic planning, marketing, quality improvement, motivation, leadership, communication, and human resources.
Units: 3

HSM 405 - Critical Health Issues
Examines and evaluates current issues in the health care industry. Devotes particular attention to issues of community health, minority healthcare delivery, health care for the poor and the aged, the rising cost of health care, current state and federal legislation, and the legislative impact of voluntary and governmental health plans on minorities. Increases understanding of the medical, legal, and social aspects of health care, their impact and influence upon community health care, and particularly the healthcare delivery system for minority groups.
Units: 3 (Recommended Elective)

HSM 410 - Introduction to Managed Care
Provides an understanding of the health maintenance organization (HMO) under current pluralistic systems of health care and insurance, and the organizational forms of managed care. Examines the HMO as a health delivery system. Presents an overview of relevant terminology, concepts and issues including benefits packages and health insurance in the United States.
Units: 3 (Recommended Elective)

HUMANITIES

HUM 231 - Introduction to Humanities I[3]
Provides an integrated historical, aesthetic, and philosophic perspective on world cultures with readings of primary texts, such as oral traditions from the earliest civilizations, including persistent African traditions, through the European late middle ages.
Prerequisite(s): ENG 111
Units: 3

HUM 232 - Introduction to Humanities II[3]
Provides an integrated historical, aesthetic, and philosophic perspective on world cultures with readings of primary texts from the European Renaissance to the end of the second millennium.
Prerequisite(s): ENG 111
Units: 3

HUM 233 - Cultural Diversity in Contemporary Literature[3]
Surveys the literatures of various cultural groups as expressed through the texts and voices of representative writers and poets. Emphasizes contemporary ethnic literatures, as well as representative writing of diverse cultural and sub-cultural groups. Focuses occasionally on special topics presented by visiting scholars.
Prerequisite(s): ENG 111
Units: 3

HUM 330 - Medical Humanities I: Philosophy of Health
Provides a humanistic study of medicine and health care from the perspectives of traditional and contemporary philosophies. Approaches current medical thought and health care in terms of the historical, cultural, and intellectual formation of such concepts as illness, wellness, methods of discovery and knowledge, mind/body, scientific, and holistic views of reality.
Formerly: AH 330
Prerequisite(s): All GE Humanities requirement.
Units: 3

HUM 335 - Medical Humanities II: Literature & Medicine[6]
Provides a humanistic perspective of medicine and health care revealed through literary studies. Engages students in critical analyses and discussions of literary texts. Develops students' perspectives on the role of literature in the art of medicine through essays and creative writing. Available to all students to fulfill the upper division unrestricted elective requirement.
Formerly: AH 335
Prerequisite(s): All GE Humanities requirement.
Units: 3

MATHEMATICS

MTH 022 - Pre-Algebra
Reviews the fundamental concepts of arithmetic, geometry, and elementary algebra.
Units: (None) CR/NC (no credit toward associate or bachelor's degree)

MTH 121 - Elementary Algebra[2]
Designed to develop proficiency with mathematical skills, to expand understanding of mathematical concepts and to improve logical thinking.
Prerequisite(s): MTH 022 or appropriate score on the pre-admission mathematics examination.
Units: 3 (cannot be used for bachelor's degree requirement)

MTH 125 - Intermediate Algebra[2]
Addresses concepts in Elementary Algebra (MTH 125) at a higher mathematical level. Provides an introduction to matrices and determinants and their applications to solving a system of linear equations, conic sections, nonlinear systems, inverse functions, exponential inverse, and logarithmic functions.
Prerequisite(s): MTH 121 or appropriate score on the pre-admission mathematics examination.
Units: 4 (cannot be used for bachelor's degree requirement)

MTH 126 - College Algebra[2]
Reviews basic algebra concepts, linear and quadratic equations with applications, functions and their graphs, probability, matrices, and determinants.
Prerequisite(s): MTH 125 or appropriate score on the pre-admission mathematics examination.
Units: 3

MTH 130 – Pre-Calculus
Elementary function theory with graphing techniques and applications. Polynomials, rational functions, exponential functions, logarithms, and trigonometric functions will be studied in detail. The course will provide a solid foundation for the use of scientific and graphics calculators in problem solving.
Prerequisite(s): MTH 126 or approval of instructor.
Units: 3

MTH 230 – Calculus I
Introduction to derivatives, calculation of derivatives of algebraic functions, and applications of derivatives (approximations, curve plotting, related rates, maxima and minima), and indefinite integrals. Fundamental theorem of calculus. Differentiation and integration of sines and cosines.
Prerequisite(s): MTH 130
Units: 3

MTH 231 – Calculus II
Continuation of MTH 230 with respect to derivatives, calculation of derivatives of algebraic functions, and applications of derivatives (approximations, curve plotting, related rates, maxima and minima), and indefinite integrals. Fundamental theorem of calculus. Differentiation and integration of sine and cosines.
Prerequisite(s): MTH 230
Units: 3

MICROBIOLOGY

MIC 223 - Applied Microbiology
Provides an introduction to the biology of microorganisms with emphasis on their roles in infectious disease, production and deterioration of goods in industry, agriculture, waste disposal, and production.
Prerequisite(s): BIO 124
Units: 6 (4 lecture units, 2 lab units)

PHYSICS

PHY 126 - Introductory Physics[2]
Emphasizes the presentation of Newton's laws of motion, work, and energy. Involves understanding of diverse forms of energy, focusing on the motion of particles and waves, electricity, and magnetism.
Prerequisite(s): *
Units: 4 (3 lecture units and 1 laboratory unit)

PHY 250 – General Physics I
Introductory calculus-based physics course. Topics include mechanics, work, momentum, heat, thermodynamics, and electrical fields.
Prerequisite(s): MTH 230
Units: 4 (3 lecture units and 1 laboratory unit)

PHY 251 – General Physics II
Calculus based physics course. Topics include wave motion, electrostatics, magnetostatics, electromagnetism, AC and DC circuits, and optics.
Prerequisites(s): PHY 250
Units: 4 (3 lecture units and 1 laboratory unit)

POLITICAL SCIENCE

POL 141 - United States Government[4]
Explores the American political tradition from the Colonial Period until today.
Formerly: POLS 141
Units: 3

PSY 141 - General Psychology
Introduces psychology, including a brief overview of its history and various schools of thought . Focuses on the basics of human behavior, developmental psychology, personality and adjustment, and social psychology. Includes the application of psychological principles to health and cross-cultural experiences. Provides an introduction to methods of psychological evaluations.
Formerly: PSYCH 141
Units: 3

PSY 351 - Human Development[6]
Describes human development from a physical, psychological, biological, anthropological, and sociological perspective from conception to death. Emphasizes the scientific method to describe and explain human development. Examines the influence of culture and the external environment. Discusses practical implications for allied health professionals.
Formerly: AH 351
Prerequisite(s): SOC 141 or PSY 141.
Units: 3

PUBLIC HEALTH EDUCATION

PHE 143 - Survey of Allied Health Professions
Provides a basic foundation for student inquiries into allied health occupations as career choices for the healthcare labor force. Develops skill in recognizing components of various options in the AHP.
Formerly: AH 143
Units: 3

PHE 250 - Community Health Issues[5]
Discusses issues in community health including the medical, legal, and social aspects of areas such as substance abuse, communicable diseases, intentional injury, and death. Provides an overview of lifestyle behaviors that influence attitudes, services, and personal and social issues related to health. Provides an overview of behavior change strategies to improve health status. Integrates Healthy People 2010 objectives strategies for promoting health in underserved communities.
Prerequisite(s): None
Units: 1

PHE 255 - Sophomore Health Seminar and Capstone
Students synthesize, integrate, and build upon their academic achievements from their general education coursework and service learning experiences with an emphasis on communication, critical thinking, understanding cultural diversity, and technical skill development.
Formerly: AH 252 and AH 255
Prerequisite(s): PHE 250
Units: 1

PHE 344 - Educational Methods for Allied Health Practitioners[6]
Provides an overview of theoretical concepts of learning, teaching, planning, implementing, and evaluating education experiences for individuals in various settings and at different stages in the life cycle. Emphasizes the development of lesson plans, usage of audiovisual aids, and application of educational methods in practical settings.
Formerly: AH 344
Prerequisite(s): 3 units in social/behavioral science
Units: 3

PHE 352 - Health Dynamics and Cultural Diversity[6]
Examines cross-cultural views of health, disease, and medicine. Examines health behavior skills intended to facilitate behavior change in cross-cultural groups. Surveys strategies for promoting optimal care for patients and self in the clinical situation, and increasing awareness of health behaviors that can inhibit or enhance behavior change. Provides an overview of four modules: cultural and religious diversity and differences, the dynamics of helping relationships, violence and intentional injury, and interpersonal communication skills. Emphasizes promotion of optimal provider-patient relationships in the clinic and other medical encounters.
Formerly: AH 352
Prerequisite(s): SOC 141 or PSY 141
Units: 3

PHE 450 - Senior Health Seminar and Capstone
Students synthesize, integrate, and build upon their academic achievements from their general education course work and service learning experiences with an emphasis on communication, critical thinking, understanding cultural diversity, and technical skill development.
Formerly: AH 355 and AH 450
Prerequisite(s): PHE 250 Units: 1

PHE 451 - Research Methods
Presents students with various aspects of health-related research. Focuses on basic research design, proposal construction, data collection, statistical theory, and formal report writing. Aims to develop and/or enhance the student's ability to participate in and conduct basic research.
Formerly: AH 321
Prerequisite(s): CPU 125*
Units: 3

SOCIOLOGY

SOC 141 - Introduction to Sociology[4]
Introduces the study of self, socialization, and social interaction. Explores interpersonal relations, social roles, structure and social change, and culture.
Units: 3

SOC 240 - Urban Sociology
Examines organization of the modern city with an emphasis on: 1) the social problems of the modern industrial center; 2) comparisons of minority communities across cultures; 3) differential structure and process of minority group life; and 4) analysis of trends in urban and suburban communities.
Prerequisite(s): SOC 141*
Units: 3

CERTIFICATE PROGRAMS

CLINICAL CODING SPECIALIST

Program Director:
Monica Thurston, MBA, RHIA
Location: W.M. Keck Bldg.
Telephone: (323) 563-5888

This certificate program is part of a career ladder curriculum in which the first sixteen months are devoted to technical aspects of becoming a coding specialist. Students then may choose to exit with a certificate or to enter the health information technology degree option and complete the second year coursework for the Associate of Science degree in health information technology.

After successfully completing the program, students will receive a certificate of completion. Graduates are be eligible to take the American Health Information Management Association's national examination for certification as a certified clinical coding specialist.

Professional Course Curriculum (26 units):

HIT 100	Healthcare Delivery Systems	3
HIT 110	Legal and Ethical Aspects	2
HIT 115	Pathophysiology*	3
HIT 120	Basic Medical Coding*	3
HIT 125	Intermediate Medical Coding*	3
HIT 127	Billing and Reimbursement*	2
HIT 130	Fundamentals of Health Information	3
HIT 136	Introduction to Pharmacology	1
HIT 172	Application & Virtual Skill Lab I	1
HIT 175	Professional Practice Experience I*	1
HIT 220	Advanced Medical Coding*	3
	Program Units	25

General Education Course Requirements (11 units):

BIO 120	Anatomy & Physiology w/Lab	4
COM 113	Medical Terminology	3
CPU 125	Introduction to Computers	3
PHE 250	Community Health Issues	1
	General Education Units	11

* These courses require a prerequisite. See course descriptions to identify specific pre-requisite courses.

Community Service: 25 hours of service are required for graduation.

Note: Refer to the Health Information Technology Program for course descriptions.

Students entering the associate's degree program must take the college reading, writing, and math assessment exams. The score received will determine the math and English class level in which a student may register.

DIAGNOSTIC MEDICAL SONOGRAPHY

Program Director: Blanca Caro, M.D., R.D.M.S.
Location: W.M. Keck Building
Telephone: (323) 563-5891

This Program is designed to prepare students to function as competent members of a healthcare team and to help alleviate the shortage of diagnostic medical sonography health care professionals. Professional capabilities include reviewing and recording pertinent patient history and supporting clinical data, performing sonographic procedures (recording high energy and inaudible sound wave reflections), and recording anatomical (structural) changes, pathological (diseases) changes, physiological (functional) data, and pertinent observations during procedures.

Upon completion of the program, students will earn a certificate of completion. After completion of the program, the graduate is a candidate for certification by the American Registry of Diagnostic Medical Sonography (ARDMS) in general sonography.

Program Admission Requirements

- One page essay detailing interest in the profession
- Completion of three DMS recommendation forms from a professional who can address the strengths, work experience or academic achievements of the applicant.
- A Bachelor of Science degree in a health-related field
- Baccalaureate including physics, general chemistry, general biology, college algebra, anatomy and physiology and medical terminology (oral and written communications courses may be taken concurrently)
- Interview with the Program Advisor prior to admission.
- College-level course in medical terminology, which may be taken prior to admission, or concurrently with program.
- Ability to lift 25 pounds without assistance
- Must have a physical examination free of any limitations and restrictions and conducted by a licensed physician. Visual and/or hearing impairments must be correctable with appropriate corrective devices.

- A single two-year allied health education program that is patient-care related. Allied health occupations include, but are not limited to, radiologic technologist, respiratory therapist, occupational therapist, physical therapist and registered nurse.

Course Curriculum

Certificate Program		**Units**
DMS 300	Diagnostic Medical Sonography with/lab	3
DMS 301	Physics of Diagnostic Medical Sonography I	2
DMS 302	Method of Patient Care	3
DMS 303	Abdominal Sonography	3
DMS 304	Obstetric and Gynecology I	3
DMS 305	Physics of Diagnostic Medical Sonography II	2
DMS 306	Abdominal Sonography and Small Parts	3
DMS 307	Obstetric and Gynecology II	3
DMS 308	Sonography Seminars and Case Study	3
DMS 309	Introduction to Vascular U.S.	4
DMS 320	Clinical Practicum I	3
DMS 330	Clinical Practicum II	4
DMS 340	Clinical Practicum III	6
		41

Note: For course descriptions, see the Bachelor's program.

Community Service: 25 hours of service learning are required for graduation

Bachelor's Program

DMS 300	Diagnostic Medical Sonography with/lab	3
DMS 301	Physics of Diagnostic Medical Sonography I	2
DMS 302	Method of Patient Care	3
DMS 303	Abdominal Sonography	3
DMS 304	Obstetrics and Gynecology I	3
DMS 305	Physics of Diagnostic Medical Sonography II	2
DMS 306	Abdominal Sonography and Small Parts	3
DMS 307	Obstetric and Gynecology II	3
DMS 308	Sonography Seminars and Case Study	3
DMS 309	Introduction to Vascular U.S.	4
DMS 320	Clinical Practicum I	3
DMS 330	Clinical Practicum II	4
DMS 340	Clinical Practicum III	4
HSM 311	Introduction to U.S. Healthcare System	3
HSM 312	Introduction to Health Services Management	3
HSM 306	Organization and Management of Healthcare Systems	3
		49

Community Service: 100 hours of service learning are required for graduation

General Education Courses

COM 113	Medical Terminology (*may be taken concurrently)	3
PHE 250	Community Health Issues	1
COM 233	Medical Spanish I	2
COM 234	Medical Spanish II	1
PHE 450	Senior Health Seminar and Community Service Learning	1
PHE 451	Research Methods	3
Elective	Unrestricted elective (UD)	3
Elective	Unrestricted elective (UD)	3
		17

PROGRAM COURSE DESCRIPTIONS

DMS 300 – Diagnostic Medical Sonography w/Lab
Includes simulated sonographic procedures using state-of-the-art equipment. Provides students with opportunity to perform laboratory procedures related to lectures and clinical applications.
Units: 3

DMS 301 – Physics of Diagnostic Medical Sonography I
Introduces the principles of ultrasound physics and diagnostic ultrasound. Discusses concepts of sound, pulse, ultrasound, and transducers.
Units: 2

DMS 302 – Methods of Patient Care
Provides the DMS student with an understanding of the concepts of patient care through an expanded scope of practice including considerations of physical and psychological conditions. Studies ethical and legal implications, care of patients with special problems and concerns, techniques of infection control and safety in diagnostic imaging. Discusses medical emergencies, the role of the DMS student in medical emergencies, and patient care during emergency imaging examinations. Discusses routine and emergency patient care procedures, the role of the DMS student in patient education, and principles of death and dying.
Units: 3

DMS 303 – Abdominal Sonography
Reviews anatomical layering, sectional anatomy, physiology and pathology of the liver, biliary system, gallbladder, pancreas, and spleen.
Units: 3

DMS 304 – Obstetrics and Gynecology
Examines anatomy, physiology and pathology of the female pelvis, and provides an introduction to obstetrical first trimester sonography.
Units: 3

DMS 305 – Physics of Diagnostic
Medical Sonography II Provides students with an understanding of the concepts of Doppler instruments. Analyzes artifacts, the biological effects, and safety measurements. Concludes with a comprehensive review of ultrasound physics and instrumentation.
Units: 2

DMS 306 – Abdominal and Small Parts Sonography II
Introduces anatomy, physiology and pathology of the kidneys, small parts (breast, thyroid gland, scrotum, testicles, and prostate gland), the retroperitoneum, and the gastrointestinal tract.
Units: 3

DMS 307 – Obstetrics and Gynecology II
Includes a discussion of normal second and third trimesters, and of fetal and maternal diseases. Concludes a complete and comprehensive review of obstetrics and gynecologic sonography.
Units: 3

DMS 308 – Sonography Seminar and Case Studies
Prepares students to take the ARDMS exams. Allows each individual student an opportunity to discuss technical ultrasound instrumentation and ultrasound clinical cases. The student will be able to elaborate interpretation of normal sonographic anatomical appearance and compare normal sonographic anatomical changes with abnormal sonographic images reflecting disease.
Units 3.

DMS 309 – Introduction to Vascular Ultrasound
Designed for entry level competencies in vascular examination of the carotid artery, the common studies of lower extremities, abdominal vascular scanning, venous and arterial hemodynamics, identification of vascular structures by employing the use of real time Doppler, color Doppler display modes, and learning and applying vascular principles and instrumentation.
Units: 4

DMS 310 – Research Project/Independent Study
Provides students an opportunity to apply knowledge and skills obtained in prior courses and to learn skills not specifically presented in the curriculum by working with a mentor on a particular research project of the student's choice
Units: 1-3

DMS 320 – Clinical Practicum I
Provides observation and supervised clinical experience. Places major emphasis on developing primary basic skills in diagnostic medical sonography.
Units: 3

DMS 330 – Clinical Practicum II
Provides observation and supervised clinical experience. Places major emphasis on the development of primary basic skills in diagnostic medical sonography.
Units: 4

DMS 340 – Clinical Practicum III
Provides an advanced clinical experience in the ultrasound department practicing on a variety of sonographic studies with emphasis on the abdomen, small parts, and OB/GYN. Emphasizes recognition of pathology and scan interpretation.
Units: 4

NUCLEAR MEDICINE TECHNOLOGY

Interim Program Director:
John Radtke, MA, BSRT, RT(R), RT (N), CNMT
Location: W.M. Keck Building
Telephone: (323) 563-5835

The nuclear medicine technology program leads to a certificate in nuclear medicine or a Bachelor of Science Degree in Medical Imaging Technology with a specialty in Nuclear Medicine. Upon completion of the didactic classes and clinical training in the hospital, the student will be eligible to take the Nuclear Medicine certification exams offered by the Nuclear Medicine Technology Certification Board (NMTCB) and the American Registry of Radiologic Technologist (ARRT). The nuclear medicine technology program at Charles Drew University has expanded its nuclear medicine curriculum to include courses designed to prepare students for the PET and CT certification examinations offered by the NMTCB and ARRT respectively.

Program Admission Requirements:

- One page essay describing your interest in becoming a nuclear medicine technologist
- Three letters of recommendation from former employers, teachers, or other professionals who can attest to the students work ethics, experience and academic performance or achievements
- Pre-assessment testing (English, Mathematics, and writing) on the Charles Drew University Campus.

- Completion of the following:
  1. Associate of Science or Arts in a science related field
  2. Bachelor of Science or Arts in a science related field
  3. Students who are planning on obtaining a BS degree in Medical Imaging with a specialty in Nuclear Medicine Technology will be considered for the program provided they've completed the classes listed below.

All students must complete the following classes at an approved college regardless of their academic degree:

1. Human Anatomy
2. Human Physiology
3. Medical Terminology (3 units)
4. General Physics
5. General Chemistry
6. General Biology
7. College Algebra

- The student applicant must have a 40 hour observation of a nuclear medicine department with verification by hospital staff.
- The student must complete a "background check" which confirms the student has no felony or misdemeanor convictions, probation sentences, or other legal problems that would prevent the student from being eligible to stay in the United States or to sit for the ARRT or NMTCB examinations in Nuclear Medicine Technology.

  Note: Random drug testing is performed by the clinical training centers. A student testing positive for any non-declared drug will be immediately removed from the nuclear medicine program.

- A Resume detailing the students education, work experience, awards and hobbies.

Upon notification of acceptance into the nuclear medicine program the student must get a physical examination by a licensed physician (MD) who will attest that the student is of sound mind and in a state of health that will allow them to work in a strenuous environment that includes physical lifting of objects weighing 40 pounds or more. The student will be assigned a clinical training site after interviewing and presenting a resume to the director of the imaging department. The student will adhere to the hospital policies of their clinical education site which may require the student to produce vaccination records for the following diseases.

1. Measles, Mumps and Rubella (MMR)
2. Diphtheria, Polio and Tetanus (DPT)
3. Recent Tuberculin (TB) skin test
4. Hepatitis "B" vaccination series (3 injections)

Program Courses		**Units**
Fall Semester		
NMT 301	Physics of Nuclear Medicine	2
NMT 302	Patient Care and Department Organization 2	
NMT 303	Nuclear Instrumentation I	2
NMT 305	Clinical Nuclear Medicine I	2
NMT 320	Clinical Practicum I	6
Total		14
Spring Semester		
NMT 306	Clinical Nuclear Medicine II	2
NMT 315	Radiopharmacy w/Lab	3
NMT 316	Radiation Biology & Protection	2
NMT 317	Nuclear Instrumentation II	2
NMT 330	Clinical Practicum II	6
Total		15
Summer Semester		
NMT 307	Clinical Nuclear Medicine III	2
NMT 309	Radiation Therapy & Technical Applications	2
NMT 408	Senior Seminar	2
NMT 421	Principles of Positron Emission Tomography	2
NMT 340	Clinical Practicum III	6
	Total Program Units	14

General Education Courses:
Required of all students in the nuclear medicine program

PHE 250	Community Health Issues	1

Community Service: 25 hours of service learning are required for graduation

PROGRAM COURSE DESCRIPTIONS

NMT 301 Physics of Nuclear Medicine
This course introduces the student to the structure of the atom the electron cloud and nucleus. What makes an atom radioactive and the different decay mechanisms used to achieve nuclear stability will be reviewed. The concepts of decay constant, physical half life, biological and effective half life are explored. How particle and electromagnetic radiations interact with matter are discussed in detail as well as how they are used for imaging and treating disease.
Units: 2 (2 hours Lecture)

NMT 302 Patient Care and Departmental Organization
This course will examine the various types of hospital and nuclear medicine department organizational flow charts and hierarchies. A description of the

occupational duties of each person in the nuclear medicine department and hospital administration will be discussed. This course will teach the patient assessment skills such as taking a patient history, collecting appropriate laboratory information from the chart, verifying doctor's orders and patient identification prior to the procedure, taking blood pressure, pulse and respiration rates and using a 12 lead and 3 lead EKG machine. In addition, the student will learn how to recognizing life-threatening changes in the patient's condition and which therapeutic interventional procedures and drugs are used to care for the patient. Medico legal aspects of hospital care and nuclear medicine are covered in this class too.
Units: 2 (2 hours Lecture)

NMT 303 - Nuclear Medicine Instrumentation I
This course presents the student with the types of radiation detectors used in the nuclear medicine department for area monitoring, personal protection and patient imaging. The course covers High Intensity Survey meters, Geiger Mueller Tubes, Pocket Dosimeters, "Chirpees", uptake-well probes and Gamma Cameras. The theory of operation, uses in the nuclear medicine department, and quality control of each device is discussed.
Units: 2 (2 hours Lecture)

NMT 305 - Clinical Nuclear Medicine I
This course will describe the radiopharmaceuticals used for the procedure, indications, and contraindications for performing the exam, imaging protocols and obtaining a patient history for the following systems:
1. Central Nervous system - Brain scanning and Cisternography
2. Endocrinology – Adrenal medulla, thyroid and parathyroid
3. Skeletal – Bone and bone marrow scan
4. Respiratory – Lung transmission, lung ventilation and perfusion

The student will identify normal anatomy and pathology for each type of scan. Normal examinations will be compared with pathological conditions associated with that anatomical system.
Units: 2 (2 hours Lecture)

NMT 306 - Clinical Nuclear Medicine II
This course will describe the radiopharmaceuticals, indications, contraindications, imaging protocols and variations in imaging procedures for the following systems and examinations:
1. Urinary – Renograms, GFR, ERPF and cystograms
2. Digestive – Gastric emptying, esophageal transit time, Hepatobiliary and liver spleen imaging
3. Cardiovascular – perfusion, infarct imaging, shunt, and MUGA

The student will identify normal anatomy on each type of scan and compare normal examinations with pathological conditions associated with that anatomical system. The student will be expected to ask relevant questions when obtaining a patient history.
Units: 2 (2 hours Lecture)

NMT 307 - Clinical Nuclear Medicine III
This course will describe the radiopharmaceuticals, indications, contraindications, imaging protocols and variations in imaging procedures for the following systems:
1. Dacrocystography
2. DVT (Deep Vein Thrombosis) imaging
3. Inflammatory imaging – Gallium and White blood cell imaging
4. Scintimammography
5. Lymph node (Sentinel Node) Imaging
6. Hematology – Red Cell Mass, Red Cell Volume, Plasma Volume, and Red Cell Survival and Sequestration studies

The student will identify normal and abnormal results from each type of scan or laboratory value as well as identify anatomy and pathology on selected scans. In addition the student will be expected to ask relevant questions when obtaining a patient history.
Units: 2 (2 hours Lecture)

NMT 309 - Radiation Therapy and Technical Applications
The student will learn which pathological conditions (cancers, hematological disorders and musculoskeletal diseases) are treated in the nuclear medicine department. The student will learn the indications and contraindications for treatment, patient assessment, radiation protection in the use of therapeutic radionuclides as well as various bone palliation and arthritis treatment protocols. During this course the student will identify protocols, document radioactive materials used specifically for each pathological condition and calculate patient doses under simulated conditions. This course will describe radiation safety considerations when treating patients with radioactive materials.
Units: 2 (2 hours Lecture)

NMT 315 - Radiopharmacy w/Lab
This class describes how radioactive materials are made, methods of localization in the body with the pharmokinetics and pharmacological action of the drug. Radiopharmaceutical quality control is incorporated into this class and the following topics will be

covered: radionuclidic purity, isotopic purity, radiochemical purity, activity assay, specific activitiy, specific concentration, sterility, pyrogen testing, pH, clarity, and chemical contamination concentrations are discussed for all radionuclides used in medical imaging.

The class includes discussions of radioactive imaging agents and non-radioactive interventional drugs used in routine and emergency situations. The use of formulas to calculate and administer radioactive and non-radioactive drugs to patients will be covered in this course.

The laboratory will simulate the elution of radioactive Tc^{99} from a molybdenum generator. The student will elute the generator and then perform calculations to prepare radiopharmaceuticals and perform quality control tests on the products.

A mandatory one week (3 days) rotation at one of our affiliate Radiopharmacies to observe the compounding of radioactive kits is required for this course.
Units: 3 (2 lecture units, 1 lab unit)

NMT 316 - Radiation Protection and Biology
The course will study the history of radiation exposure and the effects observed on humans from the 1890's to the present. Radiation damage on the molecular, cellular and systemic levels are discussed as well as the interactions of radiation with human tissue.

The course will describe how to use personnel and area radiation detection equipment, radiation monitoring documentation and statutes as well as laws and equipment quality control that apply to State and National laws. Specific State and National laws that pertain to the use, storage, disposal and documentation of radioactive materials in the United States will be reviewed. Basic radiation protection principles of Time, Distance, Shielding and Dilution will be covered with emphasis on how it can reduce radiation exposure to hospital personnel and visitors.
Units: 2 (2 hours Lecture)

NMT 317 - Nuclear Medicine Instrumentation II
This course covers the application of computers and statistics in nuclear medicine procedures. The components of a computer system, principles of computer operation and computer acquisition in SPECT, CT and digital imaging are discussed. The effect and application of computer filters in image reconstruction, smoothing, edge enhancement and histogram generation will be reviewed.

Quality control of nuclear medicine computer systems, environmental requirements and the care of the nuclear medicine computer system is covered as well This course will cover statistical applications in the analysis of radioactive decay, equipment quality control and verification of proper equipment functioning will be addressed. Topics include calculations of : Mean, mode, median, range, standard deviation, variance, Chi Square, Poisson and Gaussian statistical distributions will be covered.
Units: 2 (2 hours Lecture)

NMT 320 - Clinical Practicum I (Fall Semester)
This course is designed to introduce the student to the health care setting and help them acquire the basic imaging skills necessary to perform as a nuclear medicine technologist.

The student will be oriented to the hospital policies and then begin completing the required clinical competencies needed to complete the program and sit for the NMTCB and ARRT examinations in Nuclear Medicine Technology. The clinical instructors will supervise the student as they learn quality control of nuclear medicine equipment, preparation of radiopharmaceuticals, patient assessment and history taking and when indicated, the injection of the radiopharmaceutical into the patient and imaging them.

The student must complete the Patient Care and Quality Control Competencies in this segment which includes: patient identification, history taking, blood pressure and vital sign measurement.
Units: 6 (444 hours on clinical site)

NMT 330 - Clinical Practicum II (Spring Semester)
This course continues Clinical Practicum I by having the student participate in more advanced clinical procedures. The student will complete additional NEW imaging competencies under the supervision of a technologist in the imaging facility.
Units: 6 (444 hours on clinical site)

NMT 340 - Clinical Practicum III (Summer Semester)
Designed as the final clinical practicum in the nuclear medicine technology program, the student will complete the remaining clinical competencies required by the ARRT, NMTCB and JRCERT. The student should be able to learn new procedures while still being able to perform other previously learned procedures in Clinical Practicum I and II without the help of medical staff while under the supervision of their clinical coordinator.

Units: 6 (334 hours on clinical site)

Note: For NMT 320, 330 and 340, competencies are required for 35 imaging procedures for a person to be considered "competent" in a procedure: The student must correctly perform the following steps in order to be deemed qualified.

1. Prepare the radiopharmaceutical (reconstitution)
2. Assay the dose in the dose calibrator
3. If applicable, perform quality control on the radiopharmaceutical and equipment i.e.: dose calibrator, gamma camera etc.
   - Radionuclide Chromatography
   - Aluminum assay
   - pH
   - Radiochromatography
4. Verify they have the correct patient
5. Verify there is a physicians order for the procedure
6. Move the patient from wheelchair to imaging couch or from gurney to imaging couch
7. Inject the patient with the proper radiopharmaceutical, scan the patient at the appropriate time, process the computer generated images.
8. At the conclusion of the procedure safely remove the IV apparatus and dispose of it in a SHARPS container.
9. Ensure the processed images are of diagnostic quality by showing them to a Registered technologist (with the NMTCB or ARRT) or a medical doctor
10. Complete all required departmental paper work.
11. Have the Inpatient return to their room via hospital transportation department and outpatients take a seat in the waiting area
12. Give the patient permission to leave with post-procedure instructions.

NMT 408 - Nuclear MedicineTechnology Senior Seminar

This course is designed as a review of all aspects of nuclear medicine technology in preparation for NMTCB and ARRT registration examinations in nuclear medicine technology. The topics covered in this course include:

1. Radiation Safety, NRC and Agreement State regulations
2. Patient Care and Management
3. Principles of Radiopharmacy
4. Principles of Nuclear Medicine instrument operation
5. Quality control of nuclear medicine instrumentation
6. Cardiology and vascular systems
7. Respiratory system
8. Digestive System
9. Urinary System
10. Hematology
11. Endocrine
12. PET and PET CT
13. Tumor imaging and Radionuclide therapy
14. Inflammatory and Infectious disease imaging
15. Simulated Registry Reviews

Units: 2 (2 hours Lecture)

NMT 421 Principles of PET and PET / CT imaging

This course will cover the following topics:

1. History of PET and Computed Tomography imaging.
2. PET radiopharmaceutical production, quality control and radiation protection
3. Patient preparation for PET and CT exams with and without iodinated contrast
4. Theory of operation for PET and CT scanners as well as quality control of both imaging systems
5. Artifact recognition and correction
6. Computers and their applications with PET and CT imaging
7. PET detectors, acquisition parameters (2D, 3D and PET CT) and reconstruction
8. Factors that affect acquired data (normalization, attenuation, random coincidence, scatter coincidence, dead time, and radial elongation)
9. Imaging protocols for PET and CT imaging

Program Requirement:
All students must obtain a grade of "C" or higher in each course to progress to the subsequent semester. A student's inability to successfully pass a course with a "C" or better may result in termination from the Nuclear Medicine Technology Program.

SUBSTANCE-ABUSE COUNSELING

Program Director:
Candice Goldstein, Ph.D., CADC-II
Location: W.M. Keck Building
Telephone: (323) 357-3635

The substance abuse counseling program leads to a certificate in substance abuse counseling. The program is 40 units and can be completed in 12 months. Students may opt to attend part-time. The program is a California Association of Alcohol and Drug Abuse Counselors (CAADAC) approved education provider. It is designed for students who want to prepare for careers as counselors that treat substance abuse clients and their families. The program is also structured for

individuals already employed in a social service occupation who would like to obtain the education and training required to apply for state certification. Courses are offered in the evening to accommodate students who are employed or are fulfilling fieldwork requirements. The program accepts new students prior to the fall, spring and summer trimesters. The program aims to increase the supply of minority counselors and places an emphasis on educating and training counselors to provide counseling services to the medically-underserved and minority communities. The curriculum promotes a greater understanding of the impact and influence of substance abuse on the individual, family, and community. The program consists of behavioral science coursework focusing on theory and clinical intervention. Upon completion of the program, students receive a certificate in substance abuse counseling and are eligible for credentialing by the California Association of Alcohol and Drug Abuse Counselors (CAADAC) after completion 4,000 hours of supervised work experience treating substance abuse clients (255 hours of supervised fieldwork experience applies). Students enrolled in the certificate program may transfer to the Associate of Science degree program in Community Health, Alcohol and Other Drug Studies at any point during the certificate program if they meet the admission requirements.

General Admissions Requirements

- High School diploma, GED or the equivalent (e.g., Certificate of Completion for Home Schooling)
- Official transcripts from all institutions previously attended (foreign transcripts must be evaluated in advance)
- Minimum 2.0 GPA
- College of Science and Health Admissions application and $35 application fee

Program Specific Requirements

- A typed, one-page personal statement delineating reasons for wanting to become a substance abuse counselor and your career and/or personal aspirations in applying the education and training obtained to help your community
- One year of sobriety for individuals in recovery
- Personal interview with the selection committee

Program Course Curriculum

SAC 100	Contemporary Issues in Substance Abuse Counseling	3
SAC 110	Counseling for Addictive Behaviors I: Theory	3
SAC 111	Counseling for Addictive Behaviors II: Practice Prerequisite(s): SAC 110	3
SAC 115	Group Counseling I	3
SAC 120	Pharmacology and Toxicology	3
SAC 140	Legal and Ethical Issues	3
SAC 145	Crisis Intervention	3
SAC 150	Dual Diagnosis and Psychopathology	3
SAC 162	Counseling and Cultural Diversity	3
SAC 163	Family Counseling	3
SAC 170	Case Management	3
SAC 180	Introduction to Fieldwork	0
SAC 181	Fieldwork Prerequisite(s): SAC 140, SAC 180	3**
PHE 250	Community Health Issues	1*
PSY 141	General Psychology	3
	Total Units	**40**

* **25 hours of community service learning are required for graduation. Hours must be completed in conjunction with PHE 250 Community Health Issues.**

** **255 hours of clinical field work in an approved setting.**

Note: Refer to the Alcohol and Other Drugs Studies program for course descriptions.

ASSOCIATE OF SCIENCE PROGRAMS

ALCOHOL AND OTHER DRUG STUDIES PROGRAM

Program Director:
Candice Goldstein, Ph.D., CADC-II
Location: W.M. Keck Building
Telephone: (323) 357-3635

The Associate of Science program in Community Health, Alcohol and Other Drug Studies is a California Association of Alcohol and Drug Abuse Counselors (CAADAC) approved education provider. The program is 72 units and can be completed in 24 months. Students may opt to attend part-time. General education coursework completed at an accredited post-secondary institution with a grade of C or better may be eligible for transfer credit. The program is designed for students who want to prepare for careers as counselors that treat substance abuse clients and their families. The program is also structured for individuals already employed in a social service occupation who would like to obtain the education and training required to apply for state certification. Courses

are offered in the evening to accommodate students who are employed or are fulfilling fieldwork requirements. The program accepts new students prior to the fall, spring and summer trimesters. The program aims to increase the supply of minority counselors and places an emphasis on educating and training counselors to provide counseling services to the medically-underserved and minority communities. The curriculum promotes a greater understanding of the impact and influence of substance abuse on the individual, family, and community. The program consists of behavioral science coursework focusing on theory and clinical intervention. Upon completion of the program, students receive an Associate of Science degree in Community Health, Alcohol and Other Drug Studies and are eligible for credentialing by the California Association of Alcohol and Drug Abuse Counselors (CAADAC) after completion 4,000 hours of supervised work experience treating substance abuse clients (255 hours of supervised fieldwork experience applies).

General Admissions Requirements

- High School diploma, GED or the equivalent (e.g., Certificate of Completion for Home Schooling)
- Passing score on the pre-admissions assessment examinations in writing, reading, and math which is administered by the College of Science and Health (requirement for applicants and transfers from the certificate program)
- Official transcripts from all institutions previously attended (foreign transcripts must be evaluated in advance)
- Minimum 2.0 GPA
- College of Science and Health Admissions application and $35 application fee

Program Specific Requirements

- A typed, one-page personal statement delineating reasons for wanting to become a substance abuse counselor and your career and/or personal aspirations in applying the education and training obtained to help your community
- One year of sobriety for individuals in recovery
- Personal interview with the selection committee

Program Course Curriculum

SAC 100	Contemporary Issues in Substance Abuse Counseling	3
SAC 110	Counseling for Addictive Behaviors I: Theory	3
SAC 111	Counseling for Addictive Behaviors II: Practice Prerequisite(s): SAC 110	3
SAC 115	Group Counseling I	3
SAC 120	Pharmacology and Toxicology	3
SAC 140	Legal and Ethical Issues	3
SAC 145	Crisis Intervention	3
SAC 150	Dual Diagnosis and Psychopathology	3
SAC 162	Counseling and Cultural Diversity	3
SAC 163	Family Counseling	3
SAC 170	Case Management	3
SAC 180	Introduction to Fieldwork	0
SAC 181	Fieldwork Prerequisite(s): SAC 140, SAC 180	3**
SAC 230	AODS Capstone and Certification Preparation	3

General Education Requirements

COM 111	Public Speaking	3
COM 131	Conversational Spanish	3
CPU 125	Introduction to Computers	3
ENG 111	English Composition	3
HIS 141	United States History	3
PHE 250	Community Health Issues	1*
PHE 255	Sophomore Seminar & Community Service Learning	1
PSY 141	General Psychology	3
PSY 351	Human Development	3

Choose one 4 unit course from the following:

BIO 120	Introduction to Anatomy and Physiology	4
BIO 124	General Biology	4

Choose one 3 unit course from the following:

ART 131	Health and Creative Arts	3
HUM 233	Cultural Diversity in Contemporary Literature	3

One of the following 3 unit courses
(Determined by pre-admission test score):

MTH 121	Elementary Algebra	3
MTH 125	Intermediate Algebra	3
MTH 126	College Algebra	3
	Total Units	**72**

***50 hours of community service learning are required for graduation. Hours must be completed in conjunction with PHE 250 Community Health Issues.**

**** 255 hours of clinical field work in an approved setting.**

SUBSTANCE ABUSE COUNSELING COMMUNITY HEALTH, ALCOHOL AND OTHER DRUG STUDIES PROGRAM COURSE DESCRIPTIONS

SAC 100 Contemporary Issues in Substance Abuse Counseling
Presents the impact of alcoholism and drug abuse on society. Examines the issues involved in etiology, treatment, and prevention of substance abuse among specific populations. Presents current issues in education, harm reduction, health, and the myriad of physical, social, and psychological problems substance abusers and their families encounter.
Units: 3

SAC 110 Counseling for Addictive Behaviors I: Theory
Introduces counseling theories used in the treatment of chemical dependency and mental health. Students learn counseling techniques and begin to formulate their theoretical orientation. Students will acquire the knowledge required to begin the process of counseling skill practice in SAC 111.
Units: 3

SAC 111 Counseling for Addictive Behaviors II: Practice
This course is designed to provide students with attending and interviewing skills. Skills required for rapport building, gathering information, and bringing about change in others will be emphasized. Skills are developed through a combination of didactic demonstration and role playing activities. Students will practice applying the substance abuse counseling theories learned in SAC 110.
Prerequisite: SAC 110
Units: 3

SAC 115 Group Counseling I
This course is an introduction to group counseling approaches used in substance abuse counseling and mental health care. The course provides theoretical and experiential training in facilitating groups and focuses on types of counseling groups, group theory, group dynamics, group formation, group termination, and ethical guidelines associated with group facilitation.
Units: 3

SAC 120 Pharmacology & Toxicology
Presents a comprehensive overview of the physiological and pharmacological action of alcohol and other psychoactive drugs, as well as the characteristics and classification of both street and prescription drugs. Areas of focus include routes of drug administration, absorption, craving, intoxication, abuse, tolerance, dependence and withdrawal.
Units: 3

SAC 140 Legal and Ethical Issues
Emphasizes the study of the legal principles that underlie federal and state laws regarding alcohol and drug use. Explores the historical basis of drug laws as well as legal procedures. Discusses the ethical treatment of substance abusers and how law and ethics apply to substance abuse counselors and treatment facilities.
Units: 3

SAC 145 Crisis Intervention
Presents an overview of theories and techniques in crisis intervention. Discusses major assumptions of the crisis theory with the common techniques employed by substance abuse counselors. Details a historical and conceptual perspective on crisis intervention as a form of mental health treatment, and the philosophical, organizational and clinical approaches to treatment of specific populations.
Units: 3

SAC 150 Dual Diagnosis and Psychopathology
This course will provide students with an understanding of dual diagnosis, co-occurring psychiatric and substance use disorders. The course will cover differential diagnosis of chemical dependency and mental illness, the theory and application of assessment, treatment planning, and counseling intervention approaches for working with dual diagnosis patients.
Units: 3

SAC 162 Counseling and Cultural Diversity
This course facilitates awareness of and sensitivity to diversity issues within substance abuse counseling. An emphasis is placed on culture, acculturation, race, ethnicity, socioeconomic status, gender, age, disability and sexual orientation. Students develop multicultural competencies through learning and practicing counseling strategies that promote ethical treatment and address barriers to recovery.
Units: 3

SAC 163 Family Counseling
This course provides the theory and application of clinical skills for family counseling in substance abuse treatment. Therapeutic models and interventions of family counseling are presented. Students will learn about family dynamics through the lifespan, and support groups for family, friends and partners of substance abusers.

SAC 170 Case Management
This course presents the methodology of case management utilizing the twelve core functions of a certified substance abuse counselor. Students will learn and practice core skills including intake, assessment, client education, treatment planning, clinical case notes, recordkeeping, consultation, referral and discharge planning.
Units: 3

SAC 180 Introduction to Fieldwork
This course prepares students for the 255 hour fieldwork training experience. The course will assist students in preparing for fieldwork training as a substance abuse counseling intern within a local community agency. Students will be assisted in site selection, interviewing and resume skills and placement in a site for fieldwork training.
Units: 0

SAC 181 Fieldwork
Provides a faculty led discussion group as well as individual guidance to assist students training in all specialty areas of substance abuse counseling to practice the twelve core functions of a substance abuse counselor while concurrently completing the required 255 hours of fieldwork training.
Prerequisite(s): SAC 140, SAC 180
Units: 3

SAC 230 AODS Capstone and Certification Preparation
Advanced practice of the twelve core functions of a certified substance abuse counselor designed to prepare students for the written and case presentation oral review examinations of certification bodies. Student will also conduct a project relevant to substance abuse counseling and publicly present their project.
Prerequisites: Culminating program experience taken after the substance abuse counseling core courses and relevant general education.
Units: 3

NOTE: Refer to the General Education section of this catalog for course descriptions other than SAC.

HEALTH INFORMATION TECHNOLOGY PROGRAM

Program Director:
Monica Thurston, MBA, RHIA
Location: W.M. Keck Building
Telephone: (323) 563-5888

The Health Information Technology (HIT) program prepares professionals who play a leading role in the effective management of health data and medical records in the healthcare delivery system. HIT professionals acquire the technical knowledge and essential skills of collecting, using, analyzing, coding, validating, storing, retrieving, and quality measurement and control of healthcare data. HIT professionals are employed in a variety of settings, such as hospitals, clinics, managed care organizations, physician office practices, home healthcare and long-term care agencies, correctional facilities, insurance companies, and state and federal agencies. HIT professionals assume a variety of job titles depending on their education, work experience, and place of employment. Common jobs held by HIT professionals include medical coders, clinical data specialists, compliance and security officers, patient information coordinators and health information managers, among others. A variety of emerging roles are developing as healthcare enterprises expand their reliance on information systems and technology.

After successful completion of the program, students will receive an Associate of Science in HIT. Students also will be eligible to write the national accreditation examination given by the American Health Information Management Association (AHIMA) and upon successful passing of this exam, receive the RHIT (Registered Health Information Technician) credentials.

Accreditation
The HIT Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), in cooperation with the American Health Information Management Association.

Professional Course Curriculum (37 units)

HIT 100	Healthcare Delivery System	3
HIT 110	Legal and Ethical Issues	2
HIT 115	Pathophysiology*	3
HIT 120	Basic Medical Coding*	3
HIT 125	Intermediate Medical Coding*	3
HIT 127	Billing and Reimbursement*	2
HIT 130	Fundamentals of Health Information Technology	3
HIT 136	Introduction to Pharmacology	1
HIT 172	Application Skills and Virtual Simulation Lab I	1
HIT 175	Professional Practice Experience I *	1
HIT 219	Computers and Technology in Healthcare	3
HIT 220	Advanced Medical Coding *	3
HIT 250	Statistics in Healthcare	2
HIT 260	Quality Improvement/Risk Management/ Utilization	2
HIT 270	Management and Supervision	3
HIT 272	Application Skills and Virtual Simulation Lab II	1
HIT 275	Professional Practice Experience II*	1
	Total Program Units	37

General Education Course Requirements (35 units)

BIO 120	Anatomy & Physiology w/Lab	4
COM 111	Public Speaking	3
COM 113	Medical Terminology	3
COM 233	Medical Spanish I	2
CPU 125	Introduction to Computers	3
Elective	Unrestricted Elective	3
ENG 111	English Composition *	3
HIS 141	U.S. History	3
MTH 121	Elementary Algebra *	3
PHE 250	Community Health Issues	1
PHE 255	Sophomore Seminar & Community Service Learning	1
	Social Science (See Catalog Category D GE Section)	3
	Humanities	3
	Total General Education Units	35

* These courses require a prerequisite. See course descriptions to identify pre-requisite.

Community Service: 50 hours of service-learning are required for graduation.

PROGRAM COURSE DESCRIPTIONS

HIT 100 – Healthcare Delivery System

Introduces the history of the profession, its professional association, and ethics. Studies development, maintenance, and content of the health record, including its format and use in reference to voluntary accrediting bodies, and federal and governmental regulatory agencies. Includes related field trips to various facilities.
Units: 3 (3 hours lecture)

HIT 110 - Legal and Ethical Aspects

Introduces the legal and ethical issues applicable to health information. Emphasizes confidentiality, liability, release of information, patient rights, subpoenas, consent for treatment, the court system, and federal and state regulations.
Units: 2 (2 hours lecture)

HIT 115 – Pathophysiology

Focuses on the disease process of the human body including major signs and symptoms accompanying specific diseases. Explores the degenerative, genetic, and pathogenic causes and effects on the body system. Emphasizes diagnostic laboratory treatments, including basic pharmacology.
Units: 3 (3 hours lecture) Pre-requisites: Anatomy & Physiology, Medical Terminology

HIT 120 – Basic Medical Coding

Introduces the concepts, principles, and applications of nomenclature and classification systems. Emphasizes use of ICD-9CM to distribute valid diagnostic and/or procedures for basic coding problems and the prospective payment system (PPS), including DRG. Provides hands-on experience utilizing computerized encoding systems.
Units: 3 (3 hours lecture) Pre-requisites: Anatomy & Physiology, Medical Terminology

HIT 125 – Intermediate Medical Coding

A continuation of HIT 120 with emphasis on the relationship of the Disease Process, Pharmacology, and Physician Documentation to coding. Introduces the concepts, principles, and applications of current procedural terminology (CPT) coding with an emphasis on inpatient and ambulatory code assignment. Includes manual and computerized hands-on experience with CPT coding and continued use of encoding systems.
Units: 3 (3 hours lecture) Pre-requisites: HIT120, Anatomy and Physiology, Medical Terminology

HIT 127 – Billing and Reimbursement

Introduces students to the principles and mechanics of insurance billing, using various coding systems for reporting healthcare services that will maximize optimal reimbursement. Discusses claim preparation of HCFA 1500 and UB04 for Medicare and other types of insurance benefits. Emphasizes data abstraction, coding, and DRG assignments.
Units: 3 (3 hours lecture) Pre-requisites: HIT120, HIT 125, Anatomy and Physiology, Medical Terminology

HIT 130 – Fundamentals of Health Information Technology
A continuation of HIT 100 to introduce the organization and functions of the health information management/medical record department in acute, psychiatric, long-term and ambulatory care facilities, home health, and hospice centers.
Units: 3 (3 hours lecture)

HIT 172 – Application and Virtual Simulation Lab I
Orients the student to hands-on application in the areas of documentation practices, critical analysis, problem-solving in case studies, review and data collection of actual patient records, classification of patient diagnoses and procedure, record retention and storage, review of various indices and multiple filing systems, and development of patient registries (admission, death, birth, and tumor) in accordance with accreditation standards and regulatory laws.
Units: 1

HIT 136 – Introduction to Pharmacology
Designed to meet the American Health Information Management Association (AHIMA) basic concepts in pharmacology requirement. Introduces routes of drug administration, measurement systems, drug chemistry types, generic names and brand names, drug usage, contraindications and precautions, drug interactions, and side effects. Discusses use of the physician desk reference (PDR) and other reference resources, along with drug classes as they relate to body systems, diseases, and conditions.
Units: 1 (1 hour lecture)

HIT 175 – Professional Practice Experience I
Introduces practical application using theory and knowledge of coding systems and other HIM functions at various healthcare facilities under designated staff supervision. Requires 64 hours of non-compensated practicum at the designated site.
Units: 1 (64 hours practicum) Pre-requisites: Anatomy and Physiology, Medical Terminology, HIT 120, HIT 125

HIT 219 – Computers and Technology in Healthcare
Introduces the various software applications available for the health information practitioner. Emphasizes the importance of computers in information systems, as well as the application of software such as DRG Grouper, chart analysis, the encoder, and statistics and revenue reimbursement systems. Provides hands-on application experience concentrating on software use and on creating a database inventory of all data components in the healthcare institution.
Units: 3 (3 hours lecture)

HIT 220 – Advanced Medical Coding
Provides the students with intermediate to advanced instruction in various medical coding systems used for reimbursement, reporting, and research. Includes coding guidelines for diagnostic and procedural coding of body systems and conditions. Focuses on sequence coding with diagnostic related group (DRG) assignment. Provides hands-on abstraction and data analysis from actual medical records and computerized groupers. Includes other software in the practical application experience.
Units: 3 (3 hours lecture) Prerequisites: Anatomy and Physiology, Medical Terminology, HIT120, HIT125

HIT 250 – Statistics in Healthcare
Applies principles of health statistics foundations and research methods to be discussed. Emphasizes techniques for data collection, data analysis, and presentation of oral and written reports. Includes methodologies necessary to identify, prepare, and disseminate findings from research projects and on reporting of required patient-related data.
Units: 2 (2 hours lecture)

HIT 260 – Quality Improvement/Risk Management/Utilization
Emphasizes principles of the quality improvement process, including a framework for skills in collecting and analyzing data, reporting techniques, collection tools, data analysis, utilization of resource and risk management, and clinical pertinence standards.
Units: 2 (2 hours lecture)

HIT 270 – Management and Supervision
Introduces management of a health information department and the functions of departmental personnel. Introduces students to skills and techniques required for managing health information resources and staff, including assessment of resources, problem-solving techniques, data security, planning and organizing concepts, effective communication, staff motivation and leadership abilities, health, safety, and fair employment acts and laws.
Units: 3 (3 hours lecture)

HIT 272 – Application and Virtual Simulation Lab II
This lab is designed to help students apply classroom knowledge in a practical setting that will allow them to practice professionalism, use skills required to function in HIM department and act independently to complete assigned projects in areas of reporting requirements, health statistical methodologies for various data collection and analysis, application of quality assessment and benchmarking techniques. Students will also prepare for certification exam using online

computer testing software.
Units: 1

HIT 275 – Professional Practice Experience II
Orients students to various health information management and medical record departments. Requires students to rotate 96 hours through specialty areas in basic technical functions, policies and procedures of discharge analysis. Requires hands-on abstracting skills, medicolegal, and correspondence procedures. Provides quality improvement activities related to the institution and examines relationships between the supervisory/management team members. Includes alternate healthcare delivery facilities such as skilled nursing, ambulatory care, and outpatient surgery centers.
Units: 1 (96 hours practicum) Pre-requisite: Taken during the last semester of professional courses.

MEDICAL ASSISTANT PROGRAM

Program Director:
M. Victoria Cutler, M.P.H., C.M.A., C.P.T.
Location: Building E
Telephone: (323) 563-5928

The medical assistant program is designed to educate future allied health professionals to work in hospitals, clinics, doctor's offices, or community health facilities.

After successful completion of the medical assistant program, students will be eligible to take the American Association of Medical Assistants Council on Education's National Certification Examination for Medical Assistants.

Program Admissions Requirement

- Statement of intent

Program Courses

MAP 110	Legal and Ethical Aspects	2
MAP 114	Administrative Procedures I w/Lab	4
MAP 115	Clinical Procedures I	3
MAP 116	Clinical Practicum I	3
MAP 120	Medical Transcription	2
MAP 214	Administrative Procedures II w/lab	4
MAP 215	Clinical Procedures II	3
MAP 216	Clinical Practicum II	2
MAP 222	Computerized Medical Office	3
MAP 226	Externship	4
	Total Program Units	30

General Education Course Requirements (35 units)

BIO 120	Anatomy & Physiology w/Lab	4
COM 111	Public Speaking	3
COM 113	Medical Terminology	3
COM 233	Medical Spanish I	2
CPU 125	Introduction to Computers	3
Elective	Unrestricted Elective	3
ENG 111	English Composition *	3
HIS 141	U.S. History	3
MTH 121	Elementary Algebra *	3
PHE 250	Community Health Issues	1
PHE 255	Sophomore Seminar & Community Service Learning	1
	Social Science (See Catalog Category D GE Section)	3
	Humanities	3
	Total General Education Units	35

* These courses require a prerequisite. See course descriptions to identify pre-requisite.

Community Service: 50 hours of service-learning are required for graduation.

PROGRAM COURSE DESCRIPTIONS

MAP 110 – Legal and Ethical Aspects
Focuses on the legal issues and various types of laws relevant to the healthcare professional. Introduces principles of medical ethics, professionalism, legal documents (e.g., records, contracts, licensing and accreditation), state legislation, federal compliance, and confidentiality.
Units: 2

MAP 114-Administrative Procedures I w/Lab
Introduces students to the organizational and administrative functions of the medical assistant. Emphasizes career opportunities, professional organizations, medical delivery system types, secretarial skills, patient reception, appointment scheduling, medical record management, telephone techniques, communication, and interpersonal skills.
Units: 4 (3 lecture units, 1 lab unit)

MAP 115 – Clinical Procedures I
Introduces students to the organization and clinical (back office) functions of the medical assistant. Emphasizes back office techniques and methods, such as disease control, universal precautions, infection control procedures, aseptic techniques, measuring and recording vital signs, height, weight, and vision, preparing patients for examination, EKG's and hands-on techniques for assisting with minor surgery.
Units: 3 (2 lecture units; 1 lab unit)

MAP 116 – Clinical Practicum I
Assigns students to various departments (e.g., acute-care settings, clinical facilities, or private physicians' offices) to apply practical application skills under the supervision of a qualified staff member once a week for eight hours.
Units: 2

MAP 120 – Medical Transcription
Introduces transcription equipment along with the theory and hands-on application of preparing discharge summaries, as well as operative, pathology, consultation, radiology, history, keyboarding and physical reports.
Units: 2

MAP 214 - Administrative Procedures II w/lab
Comprehensive training for entry-level students in accounting systems, including accounts receivable and payables, billing and collection techniques, banking processes, health and accident insurance, management responsibilities, and employee payroll. Introduces students to the medical coding classification system (ICD-9-CM and CPT-4). Provides training on manual and computerized applications.
Units: 4 (3 lecture units, 1 lab unit)

MAP 215 – Clinical Procedures II
Prepares students in basic pharmacology techniques including calculations, preparation and care of medicines, and proper documentation of medical records. Storage regulations and proper techniques for collection of blood, urine, and other specimens will be discussed with emphasis on microbiology and hematology.
Units: 3 (2 lecture units, 1 lab unit)

MAP 216 – Clinical Practicum II
Continues Clinical Practicum I (MAP 116) by assigned students to a clinical site eight hours one day a week. Allows students to apply practical techniques, including disinfectant and sterilization techniques, laboratory, processing, and microscopic documentation and assessment under the supervision of a qualified staff member.

Units: 2

MAP 222 – Computerized Medical Office
Designed to develop competency in the use of microcomputers and applications relating to medical assisting front office procedures. Includes a mixture of activities that will give students hands-on experience using medical office software.
Units: 3

MAP 226 – Externship
Assigns students to clinical or administrative departments in various healthcare settings for practical application of theory and laboratory procedures under the supervision of a physician or other qualified personnel for a 160-hour externship.
Units: 4

PHARMACY TECHNOLOGY PROGRAM

Program Director:
Gail Orum-Alexander, Pharm.D.
Location: W.M. Keck Building
Telephone: (323) 563-4815

The Pharmacy Technology is a two-year associate of science degree program designed to prepare students to become pharmacy technicians. According to the California Board of Pharmacy, "a pharmacy technician is an individual who, under the direct supervision and control of a pharmacist, performs packaging, manipulative, repetitive, or other non-discretionary tasks related to the processing of a prescription in a licensed pharmacy, but exclude all functions restricted to a registered pharmacist".
The Pharmacy Technology Program is accredited by the American Society of Health System Pharmacists (ASHP).

Program Goals:
- To provide instruction, didactic and experiential, to individuals in order to prepare them to assist pharmacists in all aspects of pharmacy practice;
- To develop proficiency in technical skills necessary to enable the graduate to utilize technology in the health care setting; and,
- To prepare individuals to become integral members of the health care team.

Degree and Certification
An Associate of Science Degree in Pharmacy Technology will be conferred upon graduates who will then be eligible for registration by the California Board of Pharmacy.

Graduates are eligible to take the examination for national certification, the Pharmacy Technician Certification Exam (PTCE). Upon passing the national certification examination, the pharmacy technician may use the Certified Pharmacy Technician (CPhT) credential.

Program Admissions Requirements
- Three letters of recommendation from teachers, principals, counselors, or other professionals who can discuss strengths, educational background, and academic experience.
- Interview with Program Director.

Accreditation
The pharmacy technology program is accredited by:

The American Society of Health-System Pharmacists®
7272 Wisconsin Avenue, Bethseda, MD 20814
Phone: 301-657-3000 Fax: 301-664-8857
Web: www.ashp.org

General Admissions Requirements
- High School diploma, GED or equivalent
- Pre-admissions assessment examination administered by the college
- Official transcripts from all institutions previously attended (foreign transcripts must be evaluated in advance)
- Minimum 2.0 GPA on a four point scale
- Application fee of $35

Course Transfers from other Pharmacy Technician Programs
Professional courses successfully completed (grade C or better) at other pharmacy technician programs accredited by ASHP may be transferred for credit. Such cases will be evaluated by the Program Director on an individual basis and will require the final approval of the Dean of the College of Science and Health.

Course Transfers from other Pharmacy Technician Programs
Professional courses successfully completed (grade C or better) at other pharmacy technician programs accredited by ASHP may be transferred for credit. Such cases will be evaluated by the Program Director on an individual basis and will require the final approval of the Dean of the College of Science and Health.

Professional Program Courses:

PTE 100	Introduction to Pharmacy Technology	2
PTE 102	Over-the-Counter Products	2
PTE 103	Basic Pharmaceutical Science	3
PTE 104	Pharmacology I	3
PTE 105	Pharmacy Dispensary Lab I	3
PTE 201	Pharmacy Law and Ethics	2
PTE 202	Pharmacy Distribution and Management Systems	2
PTE 203	Pharmacology II	3
PTE 204	Pharmacy Technician Externship I	4
PTE 205	Pharmacy Dispensary Lab II	3
PTE 206	Pharmacy Technician Externship II	4
	Total Program Units	31

General Education Course Requirements

BIO 120	Anatomy & Physiology w/Lab	4
COM 111	Public Speaking	3
COM 113	Medical Terminology	3
COM 233	Medical Spanish I	2
CPU 125	Introduction to Computers	3
Elective	Unrestricted Elective	3
ENG 111	English Composition *	3
HIS 141	U.S. History	3
MTH 121	Elementary Algebra *	3
PHE 250	Community Health Issues	1
PHE 255	Sophomore Seminar & Community Service Learning	1
	Social Science (See Catalog Category D GE Section)	3
	Humanities	3
	Total General Education Units	35

* These courses require a prerequisite. See course descriptions to identify pre-requisite.

Community Service: 50 hours of service-learning are required for graduation.

PROGRAM COURSE DESCRIPTIONS

PTE 100 – Introduction to Pharmacy Technology
Introduces the history of pharmacy, including the laws and different agencies (FDA, DEA, Board of Pharmacies) that affect the practice of pharmacy.
Units: 2

PTE 102 – Over-the-Counter Products
Emphasizes all aspects of medications that are available without a prescription, including but not limited to, counseling, legal, and therapeutic efficacy of over-the-counter products.
Units: 2

PTE 103 – Basic Pharmaceutical Science
Designed to introduce the student to basic principles of pharmacy math (weight, volume, and measurements) and their applications when calculating dosages, concentrations, and dilutions.
Units: 3

PTE 104 – Pharmacology I
Discusses different classifications and categories of drugs. Discusses basic pharmacokinetics, pharmacodynamics of the different classes of drugs, and indications and contraindications in different disease state management.
Units: 3

PTE 105 – Pharmacy Dispensary Lab I
Designed to develop students' communication skills and to provide the hands-on experience necessary to pharmacy practice. Exposes students to drug information systems and third-party prescription billing in community and other outpatient settings.
Units: 3

PTE 201 – Pharmacy Law and Ethics
Designed to guide the student in exploring the legal and ethical issues involved in the practice of pharmacy in various settings (inpatient/outpatient). The student will be introduced to State and Federal laws governing the practice of pharmacy, as well as patients' rights and ethical issues.
Units: 2

PTE 202 – Pharmacy Distribution and Management Systems
This course will emphasize the importance of various distribution systems used in different pharmacy settings (community or hospital). The course will also compare and discuss cost effectiveness of different systems (central vs. satellite pharmacy, unit dose vs. floor stock, and automated pharmacy systems).
Units: 2

PTE 203 – Pharmacology II
Concludes Pharmacology I by continuing the discussion of classification categories and pharmacokinetics of drugs.
Units: 3

PTE 204 – Pharmacy Technician Externship I
Designed to expose students to the community pharmacy and the art of third party billing for prescriptions, durable medical equipment, and medical supplies carried by pharmacies in community settings. Discusses issues involving managed care.
Units: 4

PTE 205 – Pharmacy Dispensary Lab II
Designed to develop students' communication skills and to provide the hands-on experience necessary to pharmacy practice. Exposes students to drug information systems and third-party prescription billing in hospital and other institutional settings.
Units: 3

PTE 206 – Pharmacy Technician Externship II
Designed to expose students to hands-on experience in the hospital setting, including unit dose, preparing IV fluids, and third party insurance prescription billing. Provides observation of the role other pharmacy technicians and pharmacists play in the hospital setting.
Units: 4

PTE 207 – Independent Study
Provides students with an opportunity to apply knowledge and skill obtained in previous courses and to lean skills not specifically presented in the curriculum by working with a mentor.
Units: 1-4

RADIOGRAPHY PROGRAM

Program Director: Eugene Hasson, M.S., R.T., (R)
Clinical Coordinator:
Louis Armstead, III, B.S., R.T., (R)
Location: W.M. Keck Building
Telephone: (323) 563-5835
Medical Advisor: Janis Owens, M.D.

The Associate of Science degree program in radiologic technology serves as the foundation for the Bachelor of Science degree in medical imaging technology. It is designed to prepare the student for employment as entry-level radiologic technologist after two years of didactic, clinical and professional education. The program also provides the necessary prerequisite courses for a Bachelor of Science degree in the medical imaging technology program.

The primary duties of a radiologic technologist include operating imaging equipment and performing technical procedures to produce X-ray studies for the diagnosis and treatment of injury and disease. Other duties include positioning the patients, determining safe technical factors, maintaining patient records, image processing, assisting the radiologist in the performance of procedures and initiating basic life-support techniques as necessary. Radiologic technologists provide patient services using imaging equipment as directed by physicians. Professional competence requires that radiographers apply knowledge of anatomy, physiology, positioning, radiographic technique, and radiation protection to produce body images.

Radiologic technologists must exercise independent judgment and critical thinking skills in the performance of imaging procedures and must be able to communicate effectively with patients, other health professionals, and the general public. Graduates are eligible to practice as radiologic technologists after successful completion of certifying examinations (ARRT, CRT, and Fluoroscopy). During the clinical portion of the program, students are assigned to affiliated medical centers and clinics. The Associate of Science in radiologic technology is under the sponsorship of the Charles Drew University of Medicine and Science.

The radiography program is accredited by:

The Joint Review Committee on Education in Radiologic Technology (JRCERT)
20 N. Wacker Drive, Suite 2850
Chicago, IL 60606-3182
Tel: (312) 704-5300 Fax: (312) 704-5304
Website: www.jrcert.org

Program Mission Statement
"To educate competent, professional, and compassionate radiologic technologists who provide service to underserved and other populations."

Program Goals
1. To introduce students to the importance of community service.
2. To introduce students to the advantages of professional societies.
3. To produce highly competent professionals for the community
4. To provide employers with caring and compassionate graduates.
5. To provide radiologists for underserved populations.

General Admission Requirements
- High School diploma, GED or the equivalent
- Passing score on the preadmissions assessment examination which is administered by the College of Science and Health
- Official transcripts from all institutions previously attended (foreign transcripts must be evaluated in advance)
- Minimum 2.0 GPA
- College of Science and Health Admissions application and $35 application fee

Program Specific Requirements:
- Ability to lift 25 pounds without assistance
- Copy of immunization record showing vaccination against measles, mumps, rubella (MMR) and varicella or Titers
- Hepatitis B vaccination
- Proof of a negative tuberculosis skin test or Chest X-ray completed within the last 60 days
- Proof of health-care insurance
- Pass a physical examination conducted by a licensed physician (applicants are responsible for covering any expenses for a physical examination)
- 24 hours of clinical observation in radiology
- Visual and/or hearing impairments must be correctable with appropriate devices
- Completion and submission of program supplemental application packet
- Three letters of recommendation
- Personal essay stating why you want to become a radiologic technologist
- Completion of the following college-level courses from a regionally accredited college or university with a minimum grade of "C": English Composition (3 units); Elementary Algebra (minimum 3 units); Anatomy & Physiology w/lab (minimum 4 units); Medical Terminology (3 units); Introduction to Computers (3 units); and one three unit course in the social sciences (e.g., Psychology, Sociology, Anthropology).

Course Transfers from other Radiography Programs
Professional courses successfully completed (grade C or better) at other radiography programs accredited by JRCERT may be transferred for credit. Such cases will be evaluated by the Program Director on an individual basis and will require the final approval of the Dean of The College of Science and Health.

General Information
All radiologic technology courses must be completed with a minimum grade of "C" before the student can enroll in the next semester course. 85 units are required to complete the Associate of Science Degree.

American Registry of Radiologic Technologist Rules of Ethics (ARRT)
ARRT develops mandatory standards of minimally acceptable professional conduct for all present Registered Technologist and Candidates. The Standard of Ethics can be viewed at www.arrt.org.

Student Pregnancy Policy
Since ionizing radiation has been determined to be harmful to the developing embryo/fetus, the following compliance is required to protect the health of the student and child.

The pregnant student may elect to notify the Program Director and/or Clinical Coordinator of the pregnancy. Once the pregnancy is declared, a conference will be held with the Program Director and/or Radiation Safety Officer to review radiation risks, dose limit guidelines, and the cardinal principles of radiation protection. The pregnant student will be administered a fetal badge. This badge will be worn at the waist with or without an apron. All students must meet the same clinical requirements for graduation; however, scheduling of clinical activities involving fluoroscopy, C-Arms, and portables may be rearranged as possible to accommodate minimal radiation exposure to the fetus. The pregnant student must maintain as much distance between the radiation source and her person as practical and remain well behind the control booth during radiographic exposures when possible. During fluoroscopy, portables, surgical procedures, and special procedures, the pregnant student must wear a *0.5* mm Pb equivalent apron. Under no circumstances will the pregnant student be allowed to hold patients during x-ray exposure.

The recommendations of the National Council on Radiation Protection Report #116 state that a dose to the fetus from occupational exposure of the pregnant mother shall not exceed 5 mSv (.5 rem or 500 mrem for the entire gestational period.

The student may request a leave of absence when she, the physician, or the Program Director believes that it is no longer viable for her to function in a manner conducive to learning. The return of the student must be approved by her physician. Students seeking to resume coursework will meet with the Program Director and didactic faculty. Decisions will be based on individual circumstances. The student will be re-scheduled for missed class work and clinical hours will be re-scheduled with the Clinical Coordinator.

The student will be informed of her options with regard to this policy prior to enrolling and again during program orientation.

Option I:
The student has the right to make voluntary disclosure that she is pregnant and she has the right to modify training.

Option II:
Once the pregnancy is declared, the student may elect not to have any modification made to her training.

Option III:
The student may elect to withdraw from the radiography program and return within 1 year without losing their status in the program.

Option IV:
The student may elect to continue in the radiography technology program, fulfilling all program requirements as contained within the curriculum, and adhere to all radiation protection guidelines and recommendations as follows:

a) The student will be provided an additional film monitoring device to monitor exposure to the fetus.
b) The student will be required to adhere to the provisions of ALARA.
c) No more than 5 mSv (0.5 Rem or 500 mrem) of exposure is to be received by the student during the pregnancy.
d) The equivalent dose to the embryo-fetus in a month cannot exceed 0.5 mSv (.05 Rem or 50 mrem).

Option V:
The student may withdraw the declaration of pregnancy at any time. Refraction of the pregnancy declaration requires the student to abide by the general guidelines for radiation workers. Therefore, after pregnancy declaration retraction, the student will be monitored according to general guidelines for radiation workers as described by the Nuclear Regulatory Commission and State Laws.

Option VI:
The student may choose not to declare the pregnancy to the program.

The pregnancy policy adheres to the Basic Radiation Protection Criteria recommended by the U.S. Nuclear Regulatory Commission.

20.1208 Dose equivalent to an embryo/fetus:

Program Core Curriculum

RAD 102	Intro to Radiologic Technology	1
RAD 103	Radiographic Positioning I w/Lab	3
RAD 104	Radiographic Positioning II w/Lab*	3
RAD 105	Methods of Patient Care	2
RAD 106	Radiographic Positioning III w/Lab*	3
RAD 107	Radiation Physics I*	2
RAD 112	Principles of Radiation Exposure I*	2
RAD 120	Clinical Practicum I	1
RAD 130	Clinical Practicum II*	3
RAD 140	Clinical Practicum III*	3
RAD 209	Radiographic Positioning IV w/Lab*	3
RAD 212	Principles of Radiation Exposure II*	2
RAD 213	Principles of Radiation Exposure III*	2
RAD 214	Advanced Radiographic Procedures*	3
RAD 215	Sophomore Seminar for Radiologic Technology*	2
RAD 216	Certification Preparation*	3
RAD 220	Clinical Practicum IV*	3
RAD 230	Clinical Practicum V*	3
RAD 240	Clinical Practicum VI*	3
	Unrestrictive Elective	3
	Total Program Units	50

General Education Courses

ENG 111	English Composition**	3
COM 111	Public Speaking	3
COM 113	Medical Terminology**	3
BIO 120	Introduction to Anatomy & Physiology**	4
MTH 121	Elementary Algebra**	3
CPU 125	Introduction to Computers**	3
HUM 231	Introduction to Humanity	3
HIS 141	U. S. History	3
	Social Science Course**	3
COM 233	Medical Spanish I	2
PHE 250	Community Health Issues	1
PHE 255	Sophomore Seminar & Community Service Learning	1
	Unrestrictive Elective	3
	Total General Education Units	35

*** Prerequisite required**
**** Program prerequisite**
Minimum of 2000 clinical practicum hours
Community Service: 50 hours of service-learning are required for graduation.

PROGRAM COURSE DESCRIPTIONS

RAD 102 – Introduction to Radiologic Technology
Provides an introduction to the profession of radiologic technology. Introduces student to the clinical setting, radiologic services administration, basic radiation protection, patient interactions, and infection control. Discusses an overview of radiography, its role in the healthcare delivery system, and the history and future of the profession.
Units: 1

RAD 103 - Radiographic Positioning I w/lab
Provides students with the necessary concepts and practical experiences in basic standardized radiographic positioning of the upper limb. Discusses considerations related to the production of quality radiographs.
Units: 3

RAD 104 - Radiographic Positioning II w/lab
Provides students with the necessary concepts and practical experience in basic standardized radiographic positioning of the lower limb. Discusses considerations related to the production of quality radiographs.
Prerequisite(s): All RAD courses in the first year fall semester
Units: 3

RAD 105 - Methods of Patient Care
Teaches patient care concepts for the radiologic technologist, including consideration of physical and psychological conditions. Describes routine and emergency patient care procedures. Identifies the role of the radiographer in patient education. Discusses aspects of death and dying. Discusses contrast media pharmacology and its practical use. Includes certification in basic CPR and venipuncture.
Units: 2

RAD 106 - Radiographic Positioning III w/lab
Provides necessary concepts and practical experience in basic standardized radiographic positioning of the thorax, skull, and facial bones. Discusses considerations related to the production of quality radiographs.
Prerequisite(s): All RAD courses in the first year fall and spring semester
Units: 3

RAD 107 – Radiation Physics
Provides introduction to the study of basic radiologic physics and radiation protection. Discusses the fundamentals of units of measurements, atomic structure, mechanics, magnetism, electromagnetic radiation, electricity, motors, generators, transformers, circuits, x-ray tubes, x-ray production, characteristics of x-radiation, and interaction of x-rays with matter.
Prerequisite(s): All RAD courses in the first year fall and spring semesters
Units: 3

RAD 112 - Principles of Radiation Exposure I
Provides introductory knowledge and understanding of X-ray exposure technique as correlated with practical application. Provides introduction to PACS and digital radiography. Develops the capability to devise and revise a technique based on sound principles and practices. Discusses basic math and algebra formulas and fluoroscopy. Basic fundamentals concerned with the production, analysis, and recording of radiographic images are included in this course. Understanding density, contrast, detail and distortion as well as their interrelationships will be emphasized. Subject matter will include mAs, kVp, distance relationships, geometric image formation, grids, beam limiting devices, filtration, film, intensifying screens, and technique charts. Laboratory assignments are included.
Prerequisite(s): All RAD courses in the first year fall semester
Units: 2

RAD 120 - Clinical Practicum I
Designed to acquaint students in a pre-clinical observation with various sections of the radiography department. Requires assigned students to assist in various patient care and departmental functions.
Units: 1

RAD 130 - Clinical Practicum II
Develops skills in assisting with and coordinating patient examinations under direct supervision. Provides practical skills in basic patient care using knowledge from Method of Patient Care (RAD 105).
Prerequisites: All RAD courses in the first year fall semester
Units: 3

RAD 140 – Clinical Practicum III
Demonstrates student competency in radiographing patients with non-emergent conditions for routine exams, including contrast and portable procedures.
Prerequisites: All RAD courses in the first year fall and spring semesters
Units: 3

RAD 209 - Radiographic Positioning IV w/lab
Provides study and laboratory demonstration in various anatomic positions necessary to demonstrate specific anatomical parts for diagnostic evaluation with an emphasis on the vertebral column. Discuss medical terminology and considerations related to the production of quality radiographs.
Prerequisite(s): All RAD courses in the first year
Units: 3

RAD 212 - Principles of Radiation Exposure II
Provides knowledge of factors that govern and influence the production and recording of radiographic images. Provides knowledge of PACS and digital radiography, and fluoroscopy. Demonstrates clinical applications of theoretical principles and concepts via laboratory assignments and discussion. Discusses contrast media and its uses in radiology.
Prerequisite(s): All RAD courses in the first year
Units: 2

RAD 213 - Principles of Radiation Exposure III
This course presents various exposure systems and assist in evaluating which system is most appropriate for specific situations. It establishes appropriate exposure factors when using computed or digital radiography systems and automatic exposure control devices. It begins technical discussion on developing technique charts as a guide to establishing functional systems for clinical practice.
Prerequisite(s): RAD 212
Units: 2

RAD 215 – Sophomore Seminar Radiologic Technology
Designed for students who are currently preparing to take the ARRT, Fluoroscopy, and/or the California CRT certification exams in radiography. Allows each individual student an opportunity to identify and eliminate his/her own personal areas of academic weakness before taking the certification examinations.
Prerequisite(s): All RAD courses in the first year and second year fall and spring semesters
Units: 2

RAD 214 - Advanced Radiographic Procedures
Deals with the advanced radiographic procedures for unusual patient conditions or pathologies. Includes pharmacology and contrast studies of the abdomen, liver, spleen, biliary tract, alimentary canal, and urinary system. Discusses fluoroscopy radiation protection.
Prerequisite(s): All RAD courses in the first year and second year fall semester
Units: 3

RAD 216 - Certification Preparation
This course is designed to assist students who are preparing for national or state certification in radiography. The format conforms to the task analysis of the American Registry of Radiologic Technologist (ARRT) and the content specifications outlined in the latest ARRT Curriculum Guide for Approved Radiography Educational Programs.
Prerequisite(s): All RAD courses
Units: 3

RAD 220 - Clinical Practicum IV
Demonstrates student competency in radiographing patients with non-emergent conditions for routine exams including contrast, portable, surgical, urological and angiographic procedures.
Prerequisite(s): All RAD courses in the first year
Units: 3

RAD 230 - Clinical Practicum V
Enhances skills in procedures learned in prior clinical courses. Provides comprehensive experiences in closely related special imaging and therapeutic modalities to broaden knowledge of the profession.
Prerequisite(s): All RAD courses in the first year and second year fall semester
Units: 3

RAD 240 - Clinical Practicum VI
Continues to refine skills and knowledge by allowing students to demonstrate competency as entry-level radiographers and in skills for all examinations performed. Bases assignments upon instructor and student input. Schedules mini-preceptorships at the option of the faculty.
Prerequisite(s): All RAD courses in the first year and second year fall and spring semesters
Units: 3

See the General Education section for general education course descriptions.

BACHELOR OF SCIENCE PROGRAMS

BIOMEDICAL SCIENCES

Chair: Sonsoles de Lacalle, M.D., Ph.D.
Location: W.M. Keck Building, Room 222
Telephone: (323) 563 5868
Website: www.cdrewu.edu/cosh/biomedical_sciences/biomedical_sciences.htm

The Charles Drew University of Medicine and Science is one of the few medical schools in the country offering a Bachelor of Science (BS) degree in Biomedical Sciences. This exciting undergraduate major has been created for students who have a high interest in conducting medical research, to pioneer major advances in the understanding of the complex biology of human health, and to lead efforts to cure and/or improve treatment of human disease.

Biomedical Sciences is the application of new scientific knowledge to the practice of medicine and health care. It involves the multidisciplinary study of health and diseases, and particularly the biological and molecular sciences that constitute the foundation of modern medicine.

The Mission
The mission of the Department of Biomedical Sciences is to foster an environment conducive to the achievement of excellence in teaching and advising, research and scholarly activity, and service and outreach by its faculty, staff, and students. This will be accomplished by discovery, dissemination, and application of knowledge in the biomedical sciences, and by educating and training undergraduate, graduate, professional, and post-graduate students.

Program Objectives
Students are immersed in a comprehensive program rarely offered at the undergraduate level in other colleges and universities, including:

- Increase the fundamental understanding of the natural sciences through the traditional premedical courses: biology, chemistry, mathematics, and physics.
- Develop solid knowledge and practical laboratory skills in biomedical sciences through courses in biochemistry, cell and molecular biology, immunology, anatomy and physiology, pharmacology and genetics.

- Attain an excellent liberal arts education through core university courses such as history, anthropology, logic and English.
- Gain experience in independent research projects supported by faculty members who are experts in their field.

Program Highlights

Small Class Size and Individualized Attention- Each year a new class of up to 20 students are accepted into the program.

Mentored Research Experience- Students work on independent research projects with faculty skilled in mentoring young scientists. Faculty and students in the Department of Biomedical Sciences use state-of-the-art techniques in microscopy, computer imaging, electrophysiology, biochemistry, and molecular biology to investigate important problems in biomedicine.

Development of Strong Ethical and Leadership Qualities- In accordance with Charles Drew University's mission, the Biomedical Sciences program fosters and develops strong ethical values in students through leadership training and service to the community.

Preparation for Graduate and Professional School- The Biomedical Sciences major is designed to prepare students for post-baccalaureate programs in various areas of medicine and biomedical research.

Individualized Attention- Students will have the opportunity to work closely with professors and researchers in a small class environment. Students will also have ample opportunities to:

- Interact with academic counselors and departmental staff,
- Advance communication skills through special workshops,
- Work closely with Financial Aid professionals, and
- Receive personalized academic advisory, career exploration assistance, and graduate school interview preparation with Career Counselors.

Application

The Department of Biomedical Sciences accepts applications only once every year. Priority applications for the Fall Semester are accepted between October 1 and December 15 of the previous year. Students can apply after the priority deadline but they will be admitted on a space-available basis. Admissions and application information are also available online. Go to: www.cdrewu.edu/cosh/biomedical_sciences/admissions_requirements.htm.

Program Admissions Requirements

The Department of Biomedical Sciences accepts applications from freshman-level students. Applications from transfer students, or those seeking a second baccalaureate degree will be considered on a case-by-case basis (see institutional guidelines regarding credit earned at other institutions on page 46, and also description of transfer contained on page 29 of this catalog).

For the purpose of admission, applicants considered for freshman-level are students:

- still in high school, or
- have graduated from high school but have not earned more than 30 credits from any accredited college or university.

If students are attending a college summer session immediately after graduating from high school or have completed college work while in high school, the University still considers them as freshman applicants.

Matriculation Requirements:

- High School diploma
- Official transcripts from all post-secondary schools attended
- College of Science and Health admissions application and $35 application fee
- Two letters of recommendation, one of which must be from a high school science teacher.
- Minimum grade point average (GPA) of 3.0 (on a 4.0 scale)
- SAT scores
- Grade of B (or better) in at least three of the following secondary school courses: Biology, Chemistry, Physics, and Algebra
- Completion of Biology, Math, and English placement exams
- Passing score on Chemistry placement exam or completion of CHM 100 (or equivalent) with grade of "C" or better

Biomedical Sciences Program Curriculum

Requirements for the major (129 units)

Of the 129 units required for the Bachelor of Science degree in Biomedical Sciences, the major requires 77 and additional general education and other university requirements total 52.

Successful completion of the major requires a minimum C (2.0) overall grade point average in all courses required for the major. At least 15 units of upper division course work that fulfills major requirements must

be taken in residence (not to include courses graded CR/NC).

Lower Division Required Courses (50 units)

BMS 130ABL	General Biology w/Lab (*B)	5,5
BMS 140AB L	General Chemistry w/Lab (*B)	5.5
BMS 200	Leadership Seminar I (*F)	1
BMS 210ABL	Organic Chemistry w/Lab	4.4
MTH 130	Pre-Calculus (*B)	3
MTH 230	Calculus I	3
MTH 231	Calculus II	3
PHY 250L	General Physics I w/Lab	4
PHY 251L	General Physics II w/Lab	4
PSY 141	General Psychology (*D)	3
PHE 250	Community Health Issues (*E)	1

Upper Division Required Courses (37 units)

BMS 300L	Biological Chemistry w/Lab	4
BMS 302L	Cell Biology w/Lab	3
BMS 310ABL	Anatomy and Physiology w/Lab (*B)	4,4
BMS 320L	General Microbiology	3
BMS 400	Leadership Seminar II (*F)	1
BMS 401	Pharmacology	3
BMS 402L	Molecular Biology w/Lab	3
BMS 405L	Immunology w/Lab	3
BMS 410	Human Genetics	3
BMS 450	Ethical Issues in Research (*F)	1
BMS 490	Senior Seminar	1
PHE 450	Senior Health Seminar and Capstone (*E)	1
PHE 451	Research Methods/Stats	3

Other General Education Requirements (33 units)

ATH 142	Cultural Anthropology (*D)	3
ART 131	Health and Creative Arts (*C)	3
COM 111	Public Speaking (*A)	3
COM 233	Medical Spanish I (*E)	2
COM 234	Medical Spanish II (*E)	1
CPU 125	Intro to Computers (*B)	3
ENG 111	English Composition (*A)	3
HIS 141	US History (*D)	3
HUM 231	Intro to Humanities I (*C)	3
HUM 232	Intro to Humanities II (*C)	3
LOG 100	Principles of Logic (*A)	3
POL 141	US Government (*D)	3

(*A) Fulfills university GE requirements in Category A
(*B) Fulfills university GE requirements in Category B
(*C) Fulfills university GE requirements in Category C
(*D) Fulfills university GE requirements in Category D
(*E) Fulfills university GE requirements in Category E
(*F) Fulfills university GE requirements in Category F

Biomedical Sciences Electives

A minimum of 9 units in Elective Courses must be taken for graduation.

The purpose of these elective courses is:

- To build up a background in one area of biomedical sciences
- To broaden the student's knowledge of biomedical disciplines and greatly enhance the academic preparation of individuals seeking future entry into human or veterinary medical, dental, or pharmacologic professional degree programs.
- To facilitate career advancement of individuals employed in the areas of biomedical research and general science education.

A list of available Biomedical Sciences Electives can be obtained from the department during the registration period for each semester.

With departmental approval, students may register for elective classes at other institutions.

Students may enroll in BMS 299 or BMS 499 in any semester or during the summer. A maximum of 4 units of BMS 299 or BMS 499 may be counted as an elective course for graduation.

Research Requirement

By the time of graduation, students will be required to provide evidence of satisfactory research experience. To fulfill this requirement:

- Students must complete a research proposal (as required in BMS 200)
- Students must successfully implement and complete a research project under the guidance of a faculty mentor over a minimum of 12 weeks or 480 hours equivalent (approx. 15 hr/week during the entire academic year).
- Students must present their research data in a poster session, give an oral presentation at a research symposium, and complete a written report (in lieu of a published manuscript)
- It is recommended that the students complete the research requirement during the summer between the second and third year.

More details about this requirement can be found at the SPUR website: http://www.cdrewu.edu/cosh/spur/research.htm.

Community Services Requirement

Former President John F. Kennedy once appealed to Americans: "Ask not what your country can do for you, ask what you can do for your country." Inherent in that theme is the idea that we shall all serve each other as fellow citizens; our communities cannot grow without our most sincere efforts to give something back. It is in this spirit that the community service requirement was launched. Through service, students will develop an understanding of the needs of the community, and experience the joy of making a difference in the lives of those in need. Students must complete a minimum of 100 hours of community service, as part of the general education requirement, to participate in the graduation ceremony.

To fulfill this graduation requirement, the selection of community service projects must receive departmental approval. Students are encouraged to discuss their options with their advisor, no later than the first semester in their sophomore year.

PROGRAM COURSE DESCRIPTIONS

BMS 130ABL – General Biology with Lab
Introduction to the ecology, evolution, and diversity of life, covering all major groups of organisms from a phylogenetic perspective.
Units: 10
Prerequisite(s): High school biology and chemistry, each with a grade of "B" or better. To continue to the second semester of the course (e.g. BMS 130BL), a passing grade of "C" or better in BMS 130AL.

BMS 140ABL – General Chemistry with Lab
Introduction to the fundamental concepts of chemistry, atomic theory, electron configuration, periodicity, bonding, molecular structure, reaction stoichiometry, gas laws, acids and bases, thermodynamics, kinetics, organic molecules, and changes in state in preparation for advanced classes in biomedical sciences.
Units: 10
Prerequisite(s): High School Chemistry with a grade of "B" or better, or CHM 100.

BMS 200 – Leadership Seminar I
This interactive course will explore, both through readings and various activities, the meaning of leadership in today's scientific enterprise at the service of society.
Units: 1
Prerequisite(s): Sophomore standing.

BMS 210ABL – Organic Chemistry with Lab
Intermediate chemistry course dealing with structural and synthetic concepts of organic chemistry, atomic theory, electron configuration, bonding, molecular structure, stereochemistry, molecular identification by IR, Mass, & NMR spectroscopy, reaction stoichiometry, purification, and reaction pathways.
Units: 8
Prerequisite: BMS 140ABL or equivalent.

BMS 250L – Brain and Behavior
Introduction to neuroscience and multi-level frames of reference that put the brain in context. Cells and molecules, nervous system organization, interactions with other body systems, higher brain functions, health and disease.
Units: 3
Prerequisite(s): BMS 130ABL and PSY 141.

BMS 299 – Independent Study
Provides students an opportunity to apply knowledge and skills obtained in prior courses and to learn skills not specifically presented in the curriculum by working with a mentor.
Units: 1-4
Prerequisite(s): Approval of Department Chair.

BMS 300L – Biological Chemistry with Lab
Advanced molecular and biochemical course in biological chemistry, cellular metabolism, enzyme protein complexes, peptide bonds, carbohydrates, glycolysis and citrate cycle, respiration, photosynthesis, ATP energy, degradation and biosynthesis of lipids and amino acids, enzyme kinetics, nucleic acid base-pairing, DNA replication, mRNA transcription, and regulatory pathways.
Units: 3
Prerequisite(s): BMS210BL

BMS 302L – Cell Biology with Lab
This course is intended to help the student to develop an understanding of the cell as the basic biological unit. Emphasis is placed on ultrastructure, organization and function of cellular organelles, and the regulation of selected cell activities. Many other topics in cell biology will be addressed in subsequent courses.
Units: 3
Prerequisite(s): BMS300L

BMS 310ABL –Anatomy and Physiology with Lab
Introduction to anatomy and physiology for biomedical science students. Includes overview of all body systems, structure and function of cells, tissues, and organs. Detailed survey of the integumentary, musculoskeletal, digestive, urinary nervous, endocrine, reproductive, circulatory, and respiratory systems.
Units: 8
Prerequisite(s): BMS130BL and BMS140BL.

BMS 320L – General Microbiology with Lab
Microbiology provides an overview of the diversity, genetics, physiology, and ecology of microorganisms, focusing on what sets them apart from the plants and animals studied in most of the biology courses. It will provide the necessary background for upper-level courses such as bacterial genetics or immunology, and issues related to public health.
Units: 3
Prerequisite(s): BMS130BL and BMS140BL

BMS 400 – Leadership Seminar II
Leadership Seminar II will focus on implementation of skills discovered in Leadership Seminar I.
Units: 1
Prerequisite(s): BMS200

BMS 401 – Pharmacology
An introduction to the structure, mechanisms, pharmacokinetics, pharmacodynamics, therapeutic uses and adverse reactions of prototypic agents from the major categories of drugs.
Units: 3
Prerequisite(s): BMS302L

BMS 402L – Molecular Biology with Lab
A course designed to introduce the scientific theory of molecular biology and gene manipulation combined with experimental laboratory practice.
Units: 3
Prerequisite(s): BMS300L and BMS302L.

BMS 405L – Immunology with Lab
Immunology is a course designed to introduce the student to the Immune response, cellular and humoral, induction of immunity, detection of antibodies, principal serologic methods evaluation of immune response. It will address three sections: fundamental immunology, serology, and clinical immunology.
Units: 3
Prerequisite(s): BMS320L or equivalent and BMS302L.

BMS 410 – Human Genetics
Principles and methods of genetics as they relate to humans as individuals and in populations. This course covers the topics of human disease genes, cytogenetics, medical genetics, cancer genetics, and population genetics. In each section, principles are presented by way of illustration of particular human genetic diseases or conditions.
Units: 3
Prerequisite(s): BMS302L and BMS402L (or concurrent registration)

BMS 435 – Neurobiology: Human Neuroanatomy
Neurobiology: Human Neuroanatomy is a course designed to introduce the student to the gross and microscopic structure of the human nervous system, its organizational aspects, classical lesions and deficits.
Units: 3
Prerequisite(s): BMS310BL or equivalent.

BMS 450 – Ethical Issues in Research
Exploration of ethical issues that arise while conducting biomedical research. Examination of ethical issues such as establishing guidelines for ethical research methods, understanding legal requirements for conducting biomedical research, considering subjects' cultural and/or religious backgrounds, and citing others' work. Includes guided practice in moral reasoning as it relates to research.
Units: 1
Prerequisite(s): Sophomore standing.

BMS 490 – Senior Seminar
Senior undergraduate students have the opportunity to expose to the important aspects of professional scientific practice before graduation and entry into the workforce. Some of the objectives are: *1*) applying the scientific process, including designing experiments and testing of hypotheses; *2*) using mathematics and statistics to evaluate scientific evidence; and *3*) reading, understanding, and critically reviewing scientific papers and presentations.
Units: 1
Prerequisite(s): Senior standing; Approval of Department Chair.

BMS 499 – Research Project
Provides students an opportunity to apply knowledge and skills obtained in prior courses and to learn skills not specifically presented in the curriculum by working with a mentor on a particular research project of the student's choice.
Units: 1-4
Prerequisite(s): Junior standing; Approval of Department Chair.

MEDICAL IMAGING TECHNOLOGY PROGRAMS

The Diagnostic Medical Sonography program and nuclear medicine program offer healthcare and other professionals a Bachelor of Science degree. The curriculum provides an excellent opportunity to become multi-skilled and multi-credentialed in imaging science.

There are two options: Bachelor of Science in MIT/ Diagnostic Medical Sonography, and Bachelor of Science in MIT/Nuclear Medicine Technology.

PROGRAM COURSE DESCRIPTIONS

HSM 311 - Introduction to U. S. Healthcare System
Provides an overview of the United States healthcare system, including topics in health policy, financing, organization, and the institutions of healthcare systems, medical practice, and access to care. Introduces students to the historical and traditional bases of programs, issues, and aspects of healthcare delivery system in the United States.

Units: 3

HSM 312 - Introduction to Health Services Management
Introduces management theories, practices, and organizational dynamics. Emphasizes the application of theories to managing health services and healthcare institutions. Topics include ethical and legal considerations, organizational design and change, strategic planning, marketing, quality improvement, motivation, leadership, communication, and human resources.
Units: 3

HSM 306 - Organization and Management of Healthcare Systems
Examines the administrative elements of health services management. Provides background, theoretical concepts, practices, and opportunities for the exploration and discussion of issues and problems in health services management. Provides a workable overall knowledge of health services management as well as particular insight into certain types of health systems.
Units: 3

HSM 405 - Critical Health Issues
Examines and evaluates current issues in the health care industry. Devotes particular attention to issues of community health, minority healthcare delivery, health care for the poor and the aged, the rising cost of health care, current state and federal legislation, and the legislative impact of voluntary and governmental health plans on minorities. Increases understanding of the legislative impact of voluntary and governmental health plans on minorities. Increases understanding of the medical, legal, and social aspects of health care, their impact and influence upon community health care, and particularly the healthcare delivery system for minority groups.
Units: 3 (Recommended Elective)

HSM 410 - Introduction to Managed Care
Provides an understanding of the health maintenance organization (HMO) under current pluralistic systems of health care and insurance, and the organizational forms of managed care. Examines the HMO as a health delivery system. Presents an overview of relevant terminology, concepts and issues including benefits packages and health insurance in the United States.
Units: 3 (Recommended Elective)

MIT 421 – Positron Emission Tomography I
This course introduces the student to the fundamental physics that underpin the instrumentation and Radionuclide requirements of Positron Emission Tomography (PET). This course aims to provide the student with a sound understanding of the physical principles of PET imaging in the Nuclear Medicine Technologist.

MIT 450 - Introduction to Research Methodology
Teaches the anatomy and physiology of research methodology, and gives an introduction to clinical research. Focuses on the research questions behind the study of medical imaging technology.
Units: 3

Option I
BACHELOR OF SCIENCE IN MIT/ DIAGNOSTIC MEDICAL SONOGRAPHY

Program Director: Blanco Caro, MD, RDMS
Location: W.M. Keck Building
Telephone #: (323) 563-5891

This option offers a qualified upper division applicant a bachelor's degree in MIT program entering as a junior and concentrating in diagnostic medical sonography with an emphasis in administration.

This option is designed to prepare competent members of healthcare teams and to alleviate shortages of healthcare professionals in this field. Professional capabilities include reviewing and recording pertinent patient history and supporting clinical data, performing sonographic procedures, and recording anatomical changes, pathological changes, physiological data, and pertinent observations during procedures.

Upon completion of the program, students will earn a Bachelor of Science in MIT with a concentration in diagnostic medical sonography. Graduates are eligible to take the state and national certifying examinations.

Program Admissions Requirements:

- A one-page essay detailing interest in the medical imaging profession;
- Completion of three recommendation from professionals who can address the strengths, work experience, or academic achievements of the applicant; and
- An Associate of Science in science related fields, or a Bachelor of Science in health-related fields, or Baccalaureate degree including physics, general chemistry, general biology, college algebra, anatomy and physiology and medical terminology. Oral and written communication courses may be taken concurrently.

Program Courses

DMS 300	Diagnostic Medical Sonography w/Lab	3
DMS 301	Physics of Diagnostic Medical Sonography I	2
DMS 302	Methods of Patient Care	3
DMS 303	Diagnostic Medical Sonography I	3
DMS 304	Physics of Diagnostic Medical Sonography II	3
DMS 305	Diagnostic Medical Sonography II	2
DMS 306	Diagnostic Medical Sonography III	3
DMS 307	Obstetrics 7 Gynecology II	3
DMS 308	Sonography Seminar & Case Study	3
DMS 309	Introduction to Vascular U.S.	4
DMS 321	Sectional Anatomy I	3
DMS 320	Clinical Practicum I	3
DMS 322	Sectional Anatomy II	3
DMS 330	Clinical Practicum II	4
DMS 407	Diagnostic Medical Sonography Seminar	2
DMS 340	Clinical Practicum III	4
MIT 450	Introduction to Research Methodology	3
	Total Units	51

General Education Courses

COM 233	Medical Spanish I	2
COM 234	Medical Spanish II	1
HSM 306	Organization and Management of Healthcare System	3
HSM 311	Introduction to U. S. Healthcare System	3
HSM 312	Introduction to Health Services Management	3
PHE 250	Community Health Issues	1
PHE 450	Senior Seminar and Capstone	1
Elective	Unrestricted Elective (LD)	3
Elective	Unrestricted Elective (UD)	6
	General Education Units	20

NOTE: ***Refer to checklist of general education and core requirements for B.S. degree***

Option II
BACHELOR OF SCIENCE IN MIT/ NUCLEAR MEDICINE TECHNOLOGY

Interim Program Director:
John Radtke, M.S., C.N.M.T,
Location: W.M. Keck Building
Telephone: (323) 563-5881

This option offers qualified applicants the opportunity to pursue a bachelor's degree in MIT at the upper division level, entering as a junior, and concentrating in nuclear medicine technology with an emphasis in administration.

This option is designed to prepare students as competent members of the healthcare team and to help alleviate this field's shortage of healthcare professionals. Professional capabilities include radiation physics and radiation safety, skill in preparing and administering radiopharmaceuticals, and using radiation detection devices to conduct in vivo and in vitro procedures. Technologists may perform either diagnostic or therapeutic examinations in response to a physician's request.

Upon completion of the program, students will earn a Bachelor of Science in MIT with a concentration in nuclear medicine technology. Graduates are eligible to take the state and national certifying examinations.

Program Admissions Requirements

- A one-page essay detailing interest in the medical imaging profession;
- Three recommendation forms from professionals who can address the strengths, work experience, or academic achievements of the applicant;
- An Associate of Science in science related fields, or a Bachelor of Science in health-related fields or Baccalaureate classes taken including physics, general chemistry, general biology, college algebra, anatomy and physiology and medical terminology. Oral and written communication courses may be taken concurrently.
- 40 hours of documented observation in a nuclear medicine department for students without background in patient care.

Program Courses

MIT 421	Positron Emission Tomography	3
MIT 450	Introduction to Research Methodology	3
NMT 301	Physics of Nuclear Medicine	2
NMT 302	Methods of Patient Care Organization	2
NMT 303	Nuclear Medicine Instrumentation I	2
NMT 305	Clinical Nuclear Medicine I	2
NMT 306	Clinical Nuclear Medicine II	2
NMT 307	Clinical Nuclear Medicine III	2
NMT 308	Nuclear Medicine Technology Seminar	2
NMT 309	Radiation Therapy and Technical Applications	2
NMT 315	Radiopharmacy w/Lab	3
NMT 316	Radiation Protection and Biology	2
NMT 317	Nuclear Medicine Instrumentation II	2
NMT 320	Clinical Practicum I	6
NMT 321	Radiopharmacology w/Lab	3
NMT 330	Clinical Practicum II	8
NMT 340	Clinical Practicum III	6
	Program Units	52

General Education Courses

COM 233	Medical Spanish I	2
COM 234	Medical Spanish II	1
HSM 306	Organization and Management of Healthcare Systems	3
HSM 311	Introduction to U. S. Healthcare System	3
HSM 312	Introduction to Health Services Management	3
PHE 250	Community Health Issues	1
PHE 450	Senior Seminar and Capstone	1
Elective	Unrestricted Elective (LD)	3
Elective	Unrestricted Elective (UD)	3
	General Education Units	20

NOTE: ***Courses may be re-sequenced as necessary. Refer to checklist of general education and core requirements for bachelor's degree***

PHYSICIAN ASSISTANT PROGRAM

Bachelor of Science Degree in Health Science (Track I)
Certificate of Completion (Track II)

Interim Program Director:
Rischelle Turner, MS, PA-C
Location: W.M. Keck Building, 2nd Floor
Telephone: (323) 563-5950

"Physician assistants are academically and clinically prepared to practice medicine with the direction and responsible supervision of a doctor of medicine or osteopathy. The physician-PA team relationship is fundamental to the PA profession and enhances the delivery of high quality health care. Within the physician-PA relationship, Physician Assistants make clinical decisions provide a broad range of diagnostic, therapeutic, preventive, and health maintenance services. The clinical role of Physician Assistants includes: primary and specialty care in medical and surgical practice settings. Physician Assistant practice is centered on patient care and may include educational, research, and administrative activities." (Accreditation Standards for Physician Assistant Education - Third Edition 10/2007)

The Physician Assistant Program is accredited by:

Accreditation Review Commission on
Education for the Physician
Assistant, Inc. (ARC-PA)
12000 Findley Road, Suite 240
Duluth, GA, 30097
Phone: 770-476-1224
Fax: 770-476-1738
Website: http://www.arc-pa.org/contact.html

Program Mission Statement
"To provide an educationally sound, accredited program which prepares students for practice as competent and compassionate primary care physician assistants, who will practice in medically underserved areas."

Goal
The goal of the Primary Care Physician Assistant Program is to train professionals who will enhance the health care of underrepresented individuals who reside in medically underserved areas.

Objectives
1. To provide training in primary care medicine to students who are interested in becoming physician assistants.
2. To increase the number of culturally competent and responsive Physician Assistants who will practice in medically underserved areas.
3. To identify, recruit and admit students from underrepresented groups dedicated to practicing in medically underserved areas.
4. To increase the number of certified Physician Assistants who will practice in areas of un-met need.

Counseling
Appointments are available June 15th through January 15th each year. Counseling appointments can be made by calling (323) 563-5950 or by e-mail request: *www.aaronharris@cdrewu.edu*

Information Sessions
(Information Sessions are held the 4th Thursday beginning in June and ending in January and the 2nd Thursday in November and December. Please contact the program for specific information regarding these sessions.

Applications
Applications are available through the Central Application Service for Physician Assistants (CASPA). *Website: portal.caspaonline.org*

Applications to the PA Program must be submitted to CASPA by the application deadline date of January 15, 2009. All applications received after January 15, 2009 will not be considered. **All course work (prerequisites) must be completed at the time of the application deadline date.**

1. Program Admission (Prerequisite) Course Requirements for those individuals who do not possess a bachelor's degree:

   A minimum of 63 semester units or 95 quarter hours of prerequisite course work from an accredited regional college. All courses should be completed and transcripts submitted prior to or by the January 15th deadline. The following pre-requisite courses are required and may be taken at any regionally accredited university or community college:
   - English composition (3 units)
   - Speech or public speaking (3 units
   - Critical thinking or logic (3 units) (from the Philosophy department)
   - Human or animal physiology with lab (4 or 5 units, 8 or 10 units if anatomy and physiology are combined). If human or ani-

mal anatomy and physiology is taken as an 8-10 unit course, a 4 unit human physiology course is required
- General biology with lab for pre-med and science major (4 units)
- Microbiology with lab for science majors (4 units)
- General Chemistry with lab (8-10 units); or organic chemistry with lab (8 or 10 units) for pre-med and science majors
- College algebra, trigonometry, pre-calculus, or calculus (3 units)
- Art, history of the arts, language, music, drama (theatre or film), journalism, philosophy, religion, ethics, or photography, or history of dance, or music (9 units)
- Spanish (3 units) basic or conversational
- U.S. history (pre or post-civil war) (3 units)
- American government (political science) (3 units)
- Sociology (3 units) (Introduction or General)

2. Program Admissions (Prerequisite) Course Requirements for Individuals who possess a Bachelors degree (or higher) in a natural or equivalent science from a regionally accredited college/university in the U.S:
   - English composition (3 units)
   - Speech or public speaking (3 units)
   - Critical thinking or logic (3 units) (from the Philosophy department)
   - Human or animal anatomy with lab (4 or 5 units, 8 or 10 units if anatomy and physiology are combined). If human or animal anatomy and physiology is taken as an 8-10 unit course, a 4 unit human physiology course is required
   - Human or animal physiology with lab (4 or 5 units, or 8 or 10 units if anatomy and physiology are combined). If Human or animal anatomy and physiology is taken as an 8-10 unit course, a 4 unit human physiology course is required
   - General biology with lab for pre-med and science major (4 units) Microbiology with lab for science majors (4 units)
   - General Chemistry with lab (8-10 units); or organic chemistry with lab (8 or 10 units) for pre-med and science majors
   - College algebra, trigonometry, pre-calculus, or calculus (3 units)
   - Art, history of the arts, language, music, drama (theatre or film), journalism, philosophy, religion, ethics, or photography, or history of dance, or music (9 units)
   - Spanish (3 units) basic or conversational
   - U.S. history (pre or post civil war) (3 units)
   - American government (political science) (3 units)
   - Sociology (3units) (introduction or General)

PA Program Supplemental Application
1. A curriculum vitae or resume.
2. Submission of three references, including one from a healthcare facility or professional. Applicant must duplicate the program's reference form.
3. A personal interview. Candidates invited for an interview will be required to complete the reading/writing placement exam.
4. Appropriate scores on the College of Science and Health preadmissions assessment exams.
5. Maintenance of a minimum grade point average of 2.0 or a 4.0 scale.
6. A minimum grade of a "C" in all prerequisite courses.

Selection factors include, but are not limited to a completed application, past academic performance, prior healthcare experience, an understanding of the role of the physician assistant, maturity, communication skills, and demonstrated commitment to medically underserved communities.

Please note:
1. High school/preparatory courses are not acceptable.
2. Science courses taken more than 10 years at the time of application submission to the PA program will not be accepted **(this is without exception).**
3. Meeting minimal admissions requirements does not guarantee admissions into the Physician Assistant Program.
4. Preference is given to those with healthcare experience, and to those who have demonstrated a commitment to work in medically-underserved communities.
5. If accepted into the physician assistant program, all students must provide documentation of immunization or immunity to the following: measles, mumps, rubella, hepatitis B, varicella, and influenza; as well as a negative result of a Tuberculosis test (PPD or chest x-ray). Documentation of health status, all immunization, and immunity and TB test must be provided no later than July 31st of the application year.

6. Student must also provide proof of health insurance no later than the July 31st deadline of the application year.
7. Students must maintain health insurance throughout the program.

Physician Assistant Program Curriculum:
The 24-month curriculum is divided into three phases:

- Didactic (three trimesters)
- Clinical rotations (two trimesters)
- Preceptorship (one trimester)

Professional Course Curriculum (88 units)

FIRST YEAR		UNITS
PAS 300	Pathophysiology I	3
PAS 301	Adult Medicine I	6
PAS 302	Physical Diagnosis I	4
PAS 314	Applied Anatomy & Physiology I	4
PAS 330	Clinical Pharmacology I	2
PAS 303	Pathophysiology II	3
PAS 304	Adult Medicine II	6
PAS 305	Physical Diagnosis II	4
PAS 307	Medical Communications	1
PAS 316	Applied Anatomy & Physiology II	3
PAS 331	Clinical Pharmacology II	2
PAS 308	Emergency Medicine	3
PAS 312	Clinical Skills	1
PAS 320	Women's Health Care & Men's Health Issues	3
PAS 321	Pediatrics	3
PAS 322	Geriatrics	3

SECOND YEAR		UNITS
PAS 401	Clinical MedicineRotations	8
PAS 403	Clinical Review of the Medical Literature	3
PAS 410	Clinical Problems Seminar I	3
PAS 402	Clinical Medicines Rotations II	8
PAS 411	Clinical Problems Seminar II	3
PAS 450	Research	2
PAS 404	Professional Issues	1
PAS 405	Preceptorship	8
PAS 412	Clinical Problems Seminar III	3

General Education Course Requirements (8 units)

CPU 125	Introduction to Computers	3
COM 233A	Medical Spanish I	2
COM 233B	Medical Spanish II	1
PHE250	Community Health Issues & Service Learning	1
PHE 450	Senior Capstone & Service Learning	1

Bachelors Degree Requirement (9 units)

100 – 299 General Education Elective	3
300 – 399 General Education Elective	3
300 – 399 General Education Elective	3

Program Pre-Professional Course
Summer Semester

COM 113 Medical Terminology	3

Note:
Students seeking a certificate are exempt from the graduation elective requirements and the computer literacy course.

Students pursuing the Bachelor of Science degree are required to complete one lower division and two upper division General Studies courses (9 units).

Degree and Certificate
Students receive a "Certificate of Completion" and/or Bachelor of Science degree in Health Sciences upon satisfactory completion of the PA program and the University requirements. Those students who wish to pursue a certificate of completion must show documentation of an earned Bachelor of Science degree obtained from a regionally accredited institution in the United States. Students are eligible for licensure upon graduation.

Accreditation
The program is accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) and is subject to the rules and regulation of the Physician Assistant Committee (PAC) of the Medical Board of Quality Assurance of California. Upon completion of an accredited program, graduates are eligible to sit for the Physician Assistant National Certifying Examination offered by the National Commission on Certification of Physician Assistants (NCCPA).

The PA supplemental application and technical performance standards can be obtained on the Charles Drew University website at www.cdrewu.edu.

PROGRAM COURSE DESCRIPTIONS

PAS 300 – Pathophysiology I
Designed to enhance the ability of the physician assistant student to recognize and identify abnormal physiologic states for specific diseases. Presents a comprehensive examination of physiologic changes that produce signs and symptoms of altered health that result from different pathologic processes. Enhances the previously learned knowledge base of the physician assistant student in anatomy, physiology, and chemistry. Pro-

vides fundamental cognitive knowledge necessary to understanding alterations in structure and function that can disrupt the homeostasis of the human body.
Prerequisites: Enrollment in the PA Program and concurrent enrollment in PAS 301, 302, 314, 330.

PAS 301 – Adult Medicine I (6 units)
Provides a comprehensive examination of disorders and healthcare relevant to adults and, in some instances, children. Provides fundamental cognitive knowledge concerning disease entities in dermatology, upper and lower-respiratory tracts, cardiovascular, hematological, peripheral vascular, and gastrointestinal systems. Provides a broad view of adult medicine for diseases that are common in these systems. Exposes the student to the range of preventive and curative strategies that are used.
Prerequisites: Enrollment in the PA Program and concurrent enrollment in PAS 300, 302, 314, 330.

PAS 302 – Physical Diagnosis I (4 units)
This course is designed to provide students with physical diagnosis techniques, in addition to methods for analysis of data and formulation of a diagnosis based on the health history and physical examination of the patient. The student will be taught to obtain a health history and to perform a complete physical examination using appropriate techniques for each of the following organ systems: skin, upper and lower respiratory, cardiovascular, peripheral vascular and gastrointestinal.
Prerequisites: Enrollment in the PA Program and concurrent enrollment in PAS 300, 301, 314, 330.

PAS 303 – Pathophysiology II (3 units)
A continuation of Pathophysiolgy I (PAS 300). Content includes genitourinary, neurology, oncology, endocrinology, musculoskeletal, and psychiatry. Designed to provide the student with fundamental cognitive knowledge of disease entities that disrupt the homeostasis of the human body.
Prerequisites: Successful completion of the 1st semester courses and concurrent enrollment in PAS 304, 305, 307, 316, 331.

PAS 304 – Adult Medicine II (6 units)
A continuation of Adult Medicine I (PAS 301). The course provides a comprehensive examination of disorders and health care relevant to adults and, in some instances, children. It provides cognitive knowledge of diseases of genitourinary, musculoskeletal, neurology, endocrine, oncology, and psychiatry.
Prerequisites: Successful completion of the 1st semester courses and concurrent enrollment in PAS 303, 305, 307, 316, 331.

PAS 305 – Physical Diagnosis II (4 units)
A continuation of Physical Diagnosis I (PAS 302). This course describes and demonstrates physical examination techniques necessary for the diagnosis of human disorder/diseases of the genitourinary, endocrine, musculoskeletal, neurologic, oncology, and psychiatry. Students are taught to analyze medical data and to formulate a diagnosis based upon a patient's health history and physical examination. Students are taught to acquire a health history and perform a physical examination and at the end of this course, PA students are expected to perform a complete history and physical examination.
Prerequisites: Successful completion of the 1st semester courses and concurrent enrollment in PAS 300, 304, 307, 316, 331.

PAS 307 – Medical Communications (2 units)
This course provides instruction in reading, writing, and interpreting medical record entries and in acquiring medical interviewing skills. The focus of this course is on facilitating the development of effective writing skills so that the student can document relevant patient data in the medical record. It also emphasizes the interpretation of medical abbreviations.
Prerequisites: Successful completion of the 1st semester courses and concurrent enrollment in PAS 303, 304, 316, 331.

PAS 314 – Applied Anatomy & Physiology I (3 units)
This course is designed to enhance knowledge of anatomical and physiologic changes that produce signs and symptoms of abnormal health that result form altered health processes. It will also expand the knowledge base of the student in the disciplines of anatomy and physiology and in how each organ systems responds to traumatic injury, congenital anomalies and environmental changes while regulating the steady state of the human body. Gross, surface and topographical anatomy (Radiological Anatomy) will be reviewed with a focus on clinical applications.
Prerequisites: Enrollment in the PA Program and concurrent enrollment in PAS 300, 301, 302, 330.

PAS 316 – Applied Anatomy & Physiology II (3units)
This course is a continuation of Applied Anatomy & Physiology I (PAS 314). This course is designed to enhance knowledge of anatomical and physiologic changes that produce signs and symptoms of abnormal health and that result form altered health processes. It will also expand the knowledge base of the student in the disciplines of anatomy and physiology and how each organ systems responds to traumatic injury, congenital anomalies and environmental changes, while regulating the steady state of the human body.

Gross, surface and topographical anatomy (Radiological Anatomy) will be reviewed with a focus on clinical applications. The course will identify normal physiologic states for specific organ systems, and provide a comprehensive examination of physiologic changes that produce signs and symptoms of normal health that result from different physiologic processes.

PAS 308 – Emergency Medicine (3 units)
Consists of a comprehensive didactic component that provides examination of various emergency situations encountered in the general population. Designed to facilitate the development of physician assistant students' knowledge and proficiency in the recognition and management of acute emergency situations that relate to cardiovascular life support and emergencies for body systems.
Prerequisites: Successful completion of the 1st and 2nd semester courses and concurrent enrollment in PAS 312, 317, 320, 321, 322.

PAS 312 – Clinical Skills Laboratory (1 unit)
Designed to provide students with fundamental knowledge of various clinical skills, for example, venipuncture, IV insertion, urinary catheterization, suturing, reading and performing electrocardiograms, nasogastric tubing insertion, injections, blood gases, aseptic techniques, casting, and rectal/pelvic examination simulation.
Prerequisites: Successful completion of the 1st and 2nd semester courses.

PAS 320 – Women's Health Care and Men's Health Issues (3 units)
Provides an overview of the normal and abnormal manifestations of common gender-based disorders as well as pre-and postnatal management of pregnancy. The focus will be on health promotion/ disease prevention, patient education, and counseling of common health problems that occur in males and females. Anatomy, & physiology of males and females will be reviewed as well as, the management of common gynecological disorders, and exploration of major health issues that affect the health of men and women, across the life span.
Prerequisites: Successful completion of the 1st and 2nd semester courses and concurrent enrollment in PAS 312.

PAS 321 – Pediatrics (3 units)
Provides a comprehensive examination of pediatric disorders and health care including immunization, growth and development. Emphasis is placed on obtaining and recording a complete pediatric history, well child examination, and common pediatric problems, and conditions as well as examinations of well children. Provides a pediatric foundation relevant to the clinical experience.
Prerequisites: Successful completion of the 1st and 2nd semester courses and concurrent enrollment in PAS 312.

PAS 322 – Geriatrics (3 units)
Designed to provide the student with fundamental cognitive knowledge encompassing the preventive, curative, and rehabilitative therapeutic modalities for the evaluation and treatment of the elderly. Students will learn to acquire a history and physical exam of the elderly patient, and will be required to observe practices of the care of the elderly at long-term care facilities.
Prerequisites: Successful completion of the 1st and 2nd semester courses and concurrent enrollment in PAS 312.

PAS 330 – Clinical Pharmacology I (2 units)
Introduces basic concepts and principles of pharmacology. Exposes students to the clinical application of therapeutic drugs. Provide knowledge in drug action, pharmacokinetics, contraindication and side effects, and toxicological aspects of pharmacology. Provides discussions of integrated information of disease states and therapeutic pharmaceutics. Designed to provide knowledge about drug treatments and to expand the ability of the student to function as an important member of the community healthcare team.
Prerequisites: Successful completion of the 1st and 2nd semester courses and concurrent enrollment in PAS 312.

PAS 331 – Clinical Pharmacolgy II (2 units)
This is a continuation of clinical pharmacology I and is designed to coordinate pharmacologic lecture presentations with the organ systems presented in the pathophysiology and adult medicine courses. Discusses pediatric applications for the various body systems.
Prerequisites: Successful completion of the 1st and 2nd semester courses and concurrent enrollment in PAS 312.

PAS 401 - Clinical Medicine Rotations I (8 units)
Emphasizes the practical application of medicine by providing PA students experience that result in proficiency by working as part of a healthcare team in a hospital or a private office setting. Requires assigned students to rotate through required primary care and

three specialties clinical sites, as well as one elective of their choice. These clinical sites are rotated through on a monthly basis.
Prerequisites: Successful completion of the 1st year courses and concurrent enrollment in PAS 403 & 410.

PAS 402 – Clinical Medicine Rotations II (8 units)
This is a continuation of PAS 401 Clinical Medicine Rotations I. Again, this course emphasizes the practical application of medicine by allowing the student to gain experience which results in proficiency by working as a member of the healthcare team in a hospital or private office setting. Requires assigned students to primary care and three specialty clinical sites, as well as one elective clinical site of their choice. These clinical sites are rotated through on a monthly basis.
Prerequisites: Successful completion of the first 4 trimester courses and concurrent enrollment in PAS 411 PHE 450.

PAS 403 – Critical Review of Medical Literature (3 unit)
This course provides an opportunity to the PA student to acquire in depth knowledge on library search engines, to review and analyze the medical literature as an exercise into scientific inquiry, and to understand the concept and use of evidence-based-medicine. This course enhances the student's ability to integrate, synthesize, and summarize information obtained from various medical and scientific studies into a suitable form for use as a guide in medical practices. The focus is on the application of methods utilized in defining clinical problems within the medical community, construction of samples and data collection, control of variables, data analysis and the application and validity of information presented in the literature.
Prerequisites: Successful completion of the 1st year courses and concurrent enrollment in PAS 401 & 410.

PAS 404 – Professional Issues (I unit)
Emphasizes employment, contract negotiations, licensure, and professional organizations. Explores current professional issues such as healthcare reform, and the physician assistant's role in future health policy development.
Prerequisites: Successful completion of first 5 trimester courses and concurrent enrollment in PAS 405 & 412.

PAS 405 – Preceptorship (8 units)
Serves as the final phase of instruction. Assigns students to a family medicine setting where they are allowed to use their acquired knowledge to perform histories and physical exams, diagnose and manage patients. Students are able to refine their professionalism, patient management abilities and other clinical skills.
Prerequisites: Successful completion of the first 5 trimester courses and concurrent enrollment in PAS 404 & 412.

PAS 410 – Clinical Problems Seminar I (3 units)
This course is linked with (PAS 401) Clinical Medicine Rotations I, augmenting and reinforcing the PA students' experiences of the clinical rotations. The course is structured to facilitate the development of case problem solving skills and recognition, management of human disorders/diseases, interpretation of laboratory and diagnostic studies. Faculty led small focus groups are utilized to assist students to achieve a greater understanding of simulated case based-studies, management and treatment of patients, and in the interpretation of laboratory and diagnostic studies. Learning issues, and Problem Oriented Physical Examinations (POP) are utilized to review and expound upon assigned topics as they relate to the student's clinical rotation focus.
Prerequisites: Successful completion of the 1st year courses and concurrent enrollment in PAS 401, 403.

PAS 411 – Clinical Problems Seminar II (3 units)
A continuation of Clinical Problems Seminar I (PAS 410). This course is linked with (PAS 402) Clinical Medicine Rotations II, augmenting and reinforcing PA students' experiences of their clinical rotations. The course is structured to facilitate the development of case problem solving skills and recognition, management of human disorders/diseases, interpretation of laboratory and diagnostic studies. Faculty led small focus groups are utilized to assist students to achieve a greater understanding of simulated case based-studies, management and treatment of patients, and in the interpretation of laboratory and diagnostic studies. Learning issues and Problem Oriented Physical Examinations (POP) are utilized to review and expound upon assigned topics as they relate to the student's clinical rotation focus.
Prerequisites: Successful completion of the first 4 trimester courses and concurrent enrollment in PAS 402, PHE 250.

PAS 412 – Clinical Problems Seminar III (3 Units)
This course provides PA students with a systematic review of essential topics that are typically evaluated on the National Certification Examination. The course also provides students with test taking practice, problem base learning (PBL), and computer assisted learning to enhance performance on the National Certification Examination. This course also gives students an opportunity to identify strengths and weaknesses in

their clinical and cognitive skills and to improve areas of weaknesses in the management of common problems frequently encountered in clinical practice.
Prerequisites: Successful completion of the first 4 trimester courses and concurrent enrollment in PAS 404, 405.

PAS 421 - Independent Study I (2-8 units)
Provides assistance and understanding of specific program course content by reinforcement and review of didactic phase materials. Includes a comprehensive study of common diseases/disorders covered in Adult Medicine I (PAS 301) as well as oral and written communications.
Prerequisite: Consent of the program director

PAS 422 - Independent Study II (2-8 units)
Provides students with assistance and understanding of specific program course content by reinforcement and review of didactic phase materials. Includes comprehensive study of common diseases/disorders covered in Adult Medicine II (PAS 304), as well as oral and written communications.
Prerequisite: Consent of the program director

PAS 423 - Directed Study (1-4 units)
This course provides student with an opportunity to assume responsibility for independent research and the analysis of techniques utilized in clinical medicine and research. This course allows regular discussion of progress between student and instructor prior to final presentation of final written report. All projects are selected in agreement with instructor.
Prerequisite: Consent of the instructor and program director.

PAS 450 Research (2 units)
This course is the complement to PAS 403 Critical Review of the Medical Literature. PA students are introduced to research methods; and emphasis is placed on the critical evaluation of biomedical studies, clinical trials, the importance of utilizing peered reviewed research as evidence based-medicine in clinical practice; and developing a research framework for individual course projects. The focus will be on defining clinical problems within the community, the application and validity of information presented in the literature; and the development of a health promotion or disease prevention project that will address problems identified in this [Service Planning Area-6 (SPA-6)] or similar communities.
Prerequisites: Successful completion of the first 4 trimester courses and concurrent enrollment in PAS 402 & 411.

PAS 451 - Clinical Medicine Rotations III (2-8 units)
Emphasizes the practical application of medicine by providing experience that result in proficiency by working as part of a healthcare team. Students are assigned to primary care clinical rotations in a hospitals or primary care setting.
Prerequisite: Consent of the program director.

PAS 452 - Clinical Medicine Rotations VI (2-8 units)
Emphasizes the practical application of medicine by providing experience that result in clinical proficiency by working as part of a healthcare team. Students are assigned to primary care clinical rotations in a hospitals or primary care setting.
Prerequisite: Consent of the program director.

MAJOR IN PRE-HEALING ARTS

Chair: Sonsoles de Lacalle, M.D., Ph.D.
Location: W.M. Keck Building
Telephone: (323) 563-5868
Website: www.cdrewu.edu/cosh/biomedical_sciences/pre_healing_arts.htm

Charles Drew University of Medicine and Science is one of the few medical schools in the country offering a Bachelor of Science (BS) degree in the Pre-Healing Arts. This undergraduate major prepares students for careers relating to the healthcare field such as laboratory work, teaching, or chemical sales, as well as careers that require an advanced degree such as medicine, dentistry, pharmacy, veterinary medicine.

The Mission
The mission of the Department of Biomedical Sciences is to foster an environment conducive to the achievement of excellence in teaching and advising, research and scholarly activity, and service and outreach by its faculty, staff, and students. This will be accomplished by discovery, dissemination, and application of knowledge in the biomedical sciences and the pre-healing arts, and by educating and training undergraduate, graduate, professional, and postgraduate students, particularly in the context of service to underserved populations.

Program Objectives
Students in the Pre-Healing Arts major are immersed in a comprehensive program rarely offered at the undergraduate level in other colleges and universities, that will give them:

- A fundamental understanding of the natural sciences through the traditional pre-medical courses: biology, chemistry, mathematics, and physics.
- The opportunity to choose elective courses to tailor a program of study that fits personal career goals.
- An excellent liberal arts education through core university courses such as history, anthropology, logic and English.

The Pre-Healing Arts Program will prepare students to pursue advanced degrees in the health professions and matriculation in post-baccalaureate programs in the health sciences. The curriculum is designed to meet the basic requirements for admission to colleges of medicine, dentistry, podiatry, veterinary, optometry and pharmacy. In addition, students interested in pursuing advanced degrees in areas such as audiology, nursing, physical therapy, physician assistant, and public health will also find the appropriate background in this major.

Program Highlights:

Small Class Size and Individualized Attention- Each year a new class of up to 20 students is accepted into the program.

Internship Opportunities- Students will find assistance in the identification and application for internship and volunteer opportunities that provide direct contact with the health care system. Independent study and research opportunities are also available through the faculty in the Department and the College, offering a first hand experience of the process of scientific discovery.

Development of Strong Ethical and Leadership Qualities- A superior academic background must be complemented by personal qualifications and accomplishments that predict success in the health professions. A health professional needs to demonstrate leadership skills and the ability to work with people in a variety of circumstances. In accordance with Drew's mission, the Pre-Healing Arts Program fosters and develops strong ethical values in students through leadership training and service to the community.

Preparation for Graduate and Professional School- The Pre-Healing Arts major is designed to prepare students for post-baccalaureate programs in various areas of medicine and biomedical research.

Professional advisors guide students through the entire process of preparing for a career in the health professions. They advise on course selection, finding internships and health-related experiences, and preparing for standardized tests, assisting in all phases of the application process. The advisors also prepare composite letters of evaluation of applicants, and arrange for mock interviews for students prior to those at professional schools.

Individualized Attention - Students will have the opportunity to work closely with professors and researchers in a small class environment. Students will also have ample opportunities to:

- Interact with academic counselors and departmental staff,
- Advance communication skills through special workshops,
- Work closely with Financial Aid professionals, and

Receive personalized academic advisory and career exploration assistance.

Application

The Department of Biomedical Sciences accepts applications to the Pre-Healing Arts Program only once every year. Priority applications for the Fall Semester are accepted between October 1 and December 15 of the previous year. Students can apply after the priority deadline but they will be admitted on a space-available basis. Please contact the Division of Enrollment Management via phone (323-563-5873) or email (admissionsinfo@cdrewu.edu) to request an application package. Admissions and application information are also available on the Department website.

Program Admissions Requirements

The Department of Biomedical Sciences accepts applications from freshman-level students. Applications from transfer students, or those seeking a second baccalaureate degree will be considered on a case-by-case basis (see institutional guidelines regarding credit earned at other institutions on page 46, and also description of transfer contained on page 29 of this catalog).

For the purpose of admission, applicants considered for freshman-level are students:

- still in high school, or
- have graduated from high school but have not earned more than 30 credits from any accredited college or university.

If students are attending a college summer session immediately after graduating from high school or have completed college work while in high school, the University still considers them as freshman applicants.

Matriculation Requirements:

- High School diploma
- Official transcripts from all post-secondary schools attended
- College of Science and Health admissions application and $35 application fee
- Two letters of recommendation, one of which must be from a science teacher.
- Minimum grade point average (GPA) of 2.5 (on a 4.0 scale)
- SAT scores
- Completion of Biology, Math, and English placement exams
- Passing score on Chemistry placement exam or completion of CHM 100 (or equivalent) with grade of "C" or better

Pre-Healing Arts Program Curriculum

If you are considering a career in health care, challenging opportunities await you. Advances in science and technology are revolutionizing the diagnosis and treatment of disease. These advances often carry with them equally challenging ethical issues, such as end-of-life decisions, or the allocation of health care resources, among many. The health care professional of the 21st century must be knowledgeable and comfortable with technology, and possess good communication and problem-solving skills.

The basic course requirements for different health professions are virtually the same: two semesters each of English Composition and Mathematics; two semesters each of General Biology, General Chemistry, Organic Chemistry and General Physics, all with labs.

Health-related elective courses such as Health and the Creative Arts or Community Health Issues, provide additional perspectives on medicine.

Requirements for the major (129 units)

Of the 129 units required for the Bachelor of Science degree in Pre-Healing Arts, the major requires 77; additional general education and other university requirements total 52.

Successful completion of the major requires a minimum C (2.0) overall grade point average in all courses required for the major. At least 15 units of upper division course work that fulfills major requirements must be taken in residence (not to include courses graded CR/NC).

Lower Division Required Courses (50 units):

BMS130AB	General Biology (*B)	5,5
BMS140AB	General Chemistry (*B)	5,5
BMS200	Leadership Seminar I (*F)	1
BMS210AB	Organic Chemistry	4,4
MTH130	Pre-Calculus (*B)	3
MTH230	Calculus I	3
MTH231	Calculus II	3
PHY250	General Physics I	4
PHY251	General Physics II	4
PSY141	General Psychology (*D)	3
PHE250	Community Health Issues (*E)	1

Upper Division Required Courses (14 units):

BMS310AB	Anatomy and Physiology (*B)	4,4
BMS400	Leadership Seminar II (*F)	1
BMS450	Ethical Issues in Research (*F)	1
PHE450	Senior Health Seminar (*E)	1
PHE451	Research Methods/Stats	3

Other General Education Requirements (33 units):

ATH142	Cultural Anthropology (*D)	3
ART131	Health and Creative Arts (*C)	3
COM111	Public Speaking (*A)	3
COM233	Medical Spanish I (*E)	2
COM234	Medical Spanish II (*E)	1
CPU125	Intro to Computers (*B)	3
ENG111	English Composition (*A)	3
HIS141	US History (*D)	3
HUM231	Intro to Humanities (*C)	3
HUM232	Intro to Humanities II (*C)	3
LOG100	Principles of Logic (*A)	3
POL141	US Government (*D)	3

(*A) Fulfills university GE requirements in Category A
(*B) Fulfills university GE requirements in Category B
(*C) Fulfills university GE requirements in Category C
(*D) Fulfills university GE requirements in Category D
(*E) Fulfills university GE requirements in Category E

Electives

A minimum of 32 units in Elective Courses must be taken for graduation.

The purpose of these elective courses is:

- To build up a background in one area of the pre-healing arts
- To broaden the student's knowledge of biomedical disciplines and greatly enhance the academic preparation of individuals seeking future entry into human or veterinary medical, dental, or pharmacologic professional degree programs.

- To facilitate career advancement of individuals employed in the areas of biomedical research and general science education.

A list of available Electives can be obtained from the department during the registration period for each semester.

With departmental approval, students may register for elective classes at other institutions.

Students may enroll in BMS 299 or BMS 499 in any semester or during the summer. A maximum of 4 units of BMS 299 or BMS 499 may be counted as an elective course for graduation.

Internship Requirement

By the time of graduation, students will be required to provide evidence of satisfactory internship experience. To fulfill this requirement:

- Students must complete a project proposal (as required in BMS 200).
- Students must successfully implement and complete a project under the guidance of a faculty mentor over a minimum of 12 weeks or 480 hours equivalent (approx. 15 hrs/week during the entire academic year).
- Students must present the result of their experience in a poster session, during the annual "career day" at the College.
- It is recommended that the students complete the internship requirement during the summer between the second and third year.

Community Service Requirement

Former President John F. Kennedy once appealed to Americans: "Ask not what your country can do for you, ask what you can do for your country." Inherent in that theme is the idea that we shall all serve each other as fellow citizens; our communities cannot grow without our most sincere efforts to give something back. It is in this spirit that the community service requirement was launched. Through service, students will develop an understanding of the needs of the community, and experience the joy of making a difference in the lives of those in need. Students must complete a minimum of 100 hours of community service, as part of the general education requirement, to participate in the graduation ceremony.

To fulfill this graduation requirement, the selection of community service projects must receive departmental approval. Students are encouraged to discuss their options with their advisor, no later than the first semester in their sophomore year.

Program Course Descriptions

Please see the Biomedical Sciences Bachelor's Degree pages.

BIOMEDICAL SCIENCES
Post-Baccalaureate Certificate in Pre-Medicine

Chair: Sonsoles de Lacalle, M.D., Ph.D.
Location: W.M. Keck Building, room 224
Telephone: (323) 563-5868
Website: www.cdrewu.edu/cosh/biomedical_sciences/biomedical_sciences.htm

The Charles Drew University of Medicine and Science is one of the 55 institutions in the country offering a Post-baccalaureate Pre-medical program (see http://services.aamc.org/postbac/. This certificate program is designed for "career changers" – individuals who have already earned an undergraduate degree, but lack a science background. Our program gives college graduates and professionals the opportunity to take courses required for admission to medical, osteopathic and dental schools. The program is not meant for students who wish to re-take prerequisite science courses as a means of improving their GPA.

The post-baccalaureate program at The Charles Drew University is integrated with the undergraduate curriculum in the university's Department of Biomedical Sciences. Our students enjoy the same intellectual energy, faculty attention and laboratory facilities as full-time undergraduates.

Program Objectives:

The Charles Drew University recognizes that the United States is facing a severe physician shortage: the Health Policy Institute predicts that the deficit in physicians will reach 200,000 by 2020, and recommends that U.S. medical schools produce an extra 10,000 physicians per year over the next 15 years to meet the demand. Moreover it is the distribution of physicians relative to the nation's underserved populations that is of most concern (Congressional Hearings, May 2006). Therefore, the Post-baccalaureate Certificate Program aims to help address the problem of physician demand as well as distribution by increasing the number of those qualified to join the health professions.

The Post-Baccalaureate Certificate Program aims to provide individuals seeking to pursue a career in medicine and other health professions the opportunity to demonstrate academic excellence while mastering all elements of the premedical curriculum.

The program likewise aims to develop critical thinking and test-taking skills within a rigorous academic setting. Finally, our program seeks to optimize each student's likelihood of success through individualized programs of instruction combined with small class sizes and one-on-one attention. This Certificate Program will assist health professions candidates to

- Quickly comprehend, assimilate and utilize scientific information comprising medical school curricula.
- Prepare and score well on the Medical College Admissions Test (MCAT) and other health professions aptitude tests.
- Apply to medical school and other health professions schools with confidence, well-written essays, strong letters of recommendation and proven interviewing skills.
- Perform and compete well from day one upon entering the professional school of their choice.

In accordance with the University's mission, the Post-Baccalaureate Certificate Program challenges its students to become leaders in their field and in society. Strong ethical values are fostered and developed.

Program Highlights:

Small Class Size- Each year a new class of up to 20 students are accepted into the program.

Individualized Attention- Students will have the opportunity to work closely with professors in a small class environment. Students will also have ample opportunities to:

- Interact with academic counselors and departmental staff,
- Advance communication and test-taking skills through special workshops,
- Receive personalized academic advisory, career exploration assistance, and medical school interview preparation with Career Counselors.

Application

The Department of Biomedical Sciences accepts applications for the Certificate Program only once every year. Completed applications must be received no later than April 1. The application form and instructions booklet can be downloaded from the program website, or requested from the Division of Enrollment Management by phone (323-563-5873) or email (admissionsinfo@cdrewu.edu). Further information is also available online. Go to: www.cdrewu.edu/cosh/biomedical_sciences/premedicine_admissions.htm.

Program Admission Requirements

The Department of Biomedical Sciences conducts a comprehensive review of all applications for certificate admission, involving an academic review and evaluation of personal achievements and life challenges.

Matriculation Requirements:

- Official transcripts from all colleges attended (a Bachelor's degree must be conferred by the primary institution) and minimum overall grade point average (GPA) of 3.0.
- College of Science and Health admissions application and $35 application fee.
- Two letters of recommendation, one of which must be from an academic source.
- Completion of Biology and Math placement exams
- Passing score on Chemistry placement exam or completion of CHM 100 (or equivalent) with grade of "C" or better.

Certificate in Pre-Medicine Curriculum

The core curriculum represents a logical sequence of science courses necessary for application to medical and other schools of advanced health studies. Nevertheless, the certificate program is flexible and tailored to suit each student's specific goals and background.

Individuals taking all of the basic science courses will usually spend two academic years (four semesters) completing the program. For those taking fewer courses, less time may be required.

Post-baccalaureate candidates may elect to take only the courses they require to achieve their goal; however, a Certificate of Completion will be awarded only to those students completing a minimum of 24 credits and achieving a cumulative G.P.A. of 3.2 or above.

Basic Science Courses:

BMS 130ABL	General Biology w/Lab	5,5
BMS 140ABL	General Chemistry w/Lab	5,5
BMS 210ABL	Organic Chemistry w/Lab	4,4
MTH 230	Calculus I	3
MTH 231	Calculus II	3
or UPH 502	Principles of Biostatistics	3
PHY 250L	General Physics I w/Lab	4
PHY 251L	General Physics II w/Lab	4

Upper Division Courses:

BMS 300L	Biological Chemistry w/Lab	4
BMS 302L	Cell Biology w/Lab	3
BMS 310ABL	Anatomy and Physiology w/Lab	4,4
BMS 320L	General Microbiology w/Lab	3
BMS 401 or	Pharmacology	3
PAS 330/331	Clinical Pharmacology I/II	2,2
BMS 410	Human Genetics	3
BMS 450	Ethical Issues in Research	1

MCAT preparation
Participation in the Charles Drew University MCAT Review Course is required. In addition, test-taking seminars are scheduled throughout the year and are designed to reduce test-taking stress as well as to raise scores.

Community Service
President John F. Kennedy once appealed to Americans: "Ask not what your country can do for you, ask what you can do for your country." Inherent in that theme is the idea that we shall all serve each other as fellow citizens; our communities cannot grow without our most sincere efforts to reciprocate. It is in this spirit that the community service requirement was launched. Through service, students will develop an understanding of the needs of the community, and experience the joy of making a difference in the lives of those in need.

PROGRAM COURSE DESCRIPTIONS

Please see the Biomedical Sciences Bachelor's Degree pages.

GRADUATE PROGRAMS
Master of Public Health (MPH)

Program Director: Gilbert Ramirez, DrPH
Location: W.M. Keck Building, Room 202
Telephone: (323) 563-9392/5881

Worldwide, almost half of the people live in densely populated urban settings – and in the U.S., many of these represent underserved minority population groups. The urban setting presents unique societal and environmental determinants of health adding to the already heavy burden experienced by underserved minorities.

The mission of the Master of Public Health Program at Charles Drew University of Medicine and Science, College of Sciences and Health, is "To improve the health of urban populations through graduate education of future public health practitioners, urban-relevant scholarship, and community service specifically targeting the determinants of health disparities in underserved communities." The program also strives to improve the health of urban populations by providing education and training to all health care professionals through a range of academic opportunities.

Public health professionals have numerous career options within local, state, federal, and nongovernmental health agencies; academic institutions; research organizations; health services organizations, and community advocacy organizations. Students who choose to pursue graduate education and training in urban public health at Charles Drew University will be prepared to address a wide range of urban health problems such as violence, substance abuse, cigarette smoking, mental illness, HIV/AIDS, obesity. More important, they will develop skills applicable to the following essential public health services:

1. Monitor health status to identify community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise available
8. Assure a competent public health and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems.

Curriculum
The Master of Public Health degree at Charles Drew University of Medicine and Science is a 43 semester credit hour (SCH), competency-based curriculum. The 42 (minimum) hour curriculum is structured as follows:

1. Background and Overview Courses (6 hours)
   a. MPH 501 Urban Public Health Overview

   b. MPH 502 Racial and Ethnic Disparities in Health
2. Evidence-Based Population Health Decision Methods Courses (9 hours)
   a. MPH 511 EBDM I: Epidemiology
   b. MPH 512 EBDM II: Biostatistics
   c. MPH 513 EBDM III: Program Planning and Evaluation
3. Health Determinants / Strategies for Improvement Courses (15 hours)
   a. MPH 521 Environmental Determinants of Health
   b. MPH 522 Behavioral/Social Determinants of Health
   c. MPH 523 Health Systems Management
   d. MPH 524 Community Organization/Capacity Building (a service-learning course)
   e. MPH 525 Health Policy and Leadership
4. Practicum (3 hours)
5. Culminating Experience (3 hours)
6. Electives (6 hours)

The curriculum, student learning outcomes, and course objectives are founded on three sets of competencies: Association of Schools of Public Health Minimum MPH Educational Competencies; Council on Linkages Between Academia and Public Health Practice Competencies; and a set of emerging Urban Health Competencies. The curricular student learning outcomes reflect the intersection of the three sets of competencies as distributed under the ten Public Health Essential Services.

The MPH curriculum includes 30 hours of background/overview, evidence-based decision methods, and health determinants/strategies for improvement courses based on the Association of Schools of Public Health minimum MPH educational competencies that are organized under twelve domains: Biostatistics, Communication and Informatics, Diversity and Cultural Competence, Environmental Health and Safety, Epidemiology, Health Policy and Management, Leadership, Professionalism, Program Planning, Public Health Biology, Social and Behavioral Sciences, and Systems Thinking. Students are also required to complete a practicum experience relevant to one of the ten Essential Public Health Services. All students are required to complete a culminating experience. The curriculum also allows individualization of degree plans through multiple elective course offerings.

Time to Degree

Students receive a Master of Public Health degree upon satisfactory completion of the 42 semester-credit hour program as described above (or latest amendment available from the Program Director and posted on the Program Bulletin Board). Students are admitted the program in the Fall semester under a fulltime or part-time cohort model. Fulltime students register for 9 hours each long semester (Fall, Spring) and 6 hours during the Summer semester. Because most of the MPH students are employed fulltime, the classes are offered exclusively at night (6-9pm) on Monday, Wednesday and Thursday. During the first year of the 20-month fulltime program (the part-time program is 32 months) five of the eight courses are attended during an 8-week mini-semester where students attend classes on Monday and Thursday night. The remaining three courses during the first year are attended one night per week on Wednesday night. This mix of traditional (16 week) and mini-semesters (8 weeks) allow the student to pursue fulltime graduate education (9 hours per long semester, or 3 graduate courses) while taking only two courses concurrently. The two courses in the mini-semesters are scheduled back-to-back: one is completed before starting the other.

The service-leaning course (MPH 524 Community Organization/Capacity) is offered during the shortened Summer semester (12 weeks, one night per week, 6-9pm); students are required to complete service-learning hours outside the regularly scheduled class time. The remaining courses are delivered one night per week over 16 weeks, or on an individually arranged basis (practicum experiences, thesis, and independent studies).

Requirements for Admission

Admission is a competitive process in which each student's entire application is individually reviewed. In selecting students, the program carefully considers the applicant's responses to questions about "why public health as a career, "and why the Charles Drew program," etc., particularly with respect to the program's mission of improving the health of underserved populations in urban settings. The applicant's previous academic record, i.e., grade point average, is used to assess whether the applicant would be better served pursuing the MPH degree as a fulltime or part-time student; other demands on the applicant's available time to pursue graduate study is also considered with respect to the number of courses taken per semester. The applicant's performance on the Graduate Record Exam is used to identify individual strengths and potential weaknesses to assist the student's advisor in the development of the student's degree plan.

All applicants to the Urban MPH program must satisfy the following minimum admission requirements:

1. University admissions application.
2. A non-refundable $45 application fee.
3. An earned baccalaureate (or higher) degree.
4. Graduate Record Exam (GRE) taken within last five years of application date. Applicants holding a graduate degree with a graduate GPA of 3.0 or higher may request waiver of the GRE requirement.
5. Official academic transcripts from all previous colleges or universities attended. Transcripts will be considered official if forwarded directly to the University Admissions Office (do not send to the Program Director) by the institutions attended or if hand-carried with official seal intact. All official documents become the University's property. Failure to complete the application or to provide accurate and authentic documents may result in denial of admission.
6. Three letters of recommendation using the recommendation forms found on the programs website, http://www.cdrewu.edu/cosh/news/urban_public_health.htm .

Transfer Students
Applicants may petition the transfer of MPH-relevant graduate coursework during the application process or upon notification of acceptance into the program. Normally, the maximum number of units (credits) from other institutions that new students will be able to transfer into the UPH Program is six (6) as the MPH curriculum (required courses) is delivered in a sequenced format with successful progress in any specific course dependent on courses taken earlier in the sequence. Courses taken at other institutions must be approved by the program director. Only units with a B grade or better will be transferable.

Admission Deadlines
For Fall Semester admission, all required documents (including official transcripts) must be received by the Office of the Registrar no later than June 30. Review of applications begin on April 1 and continue until the class is filled. Class sizes of approximately 18-25 are admitted each Fall. Depending on the number of students that matriculate in the Fall, qualified applicants may be considered for admission during the Spring Semester. [If applications are solicited for Spring admission, all required documents must be received no later than October 31. Applications after these final deadline dates will be processed for the next opening semester. Students are not admitted during the summer semester.]

Applications for admissions are processed as they are received and applicants are encouraged to complete their application packets as soon as possible and not wait for the final deadline as the class may be filled.

Other Admissions Information
For all other admissions information including international applications, registration, appeal, tuition, financial aid and scholarship, refer to the criteria outlined in the undergraduate section of this catalog.

All students are required to attend a Basic Tools Workshop during the 2-3 week period immediately preceding their first semester of required courses. The Basic Tools Workshop provides instruction and training in various skills sets (information literacy, communication skills, etc.) that are necessary for successful completion of the MPH program. Students may request exemption from attending the Basic Tools Workshop based on demonstrated competency either through on-site assessment or documentation of previous training.

COURSE DESCRIPTIONS

Currently approved courses are listed below. Students should check with their advisor or program director to determine availability of additional courses that have been approved and added after the publication of this catalog.

MPH 501 Urban Public Health Overview (3 hours)
The health of urban populations is examined as a system impacted by global/national trends, individual and societal factors, including private and public infrastructures, policies and markets. The contributions of multiple disciplines toward the amelioration of urban health problems are presented as a trans-disciplinary approach, reflecting on history and future projections.

MPH 502 Racial and Ethnic Disparities in Health (3 hours)
This course offers an analysis and evaluation of various topics and issues on health disparities of underserved racial, ethnic or minority vulnerable populations as well as an analysis of research that describes, explains and examines variables influencing health disparities and intervention strategies to reduce these disparities

MPH 511 EBDM I: Epidemiology (3 hours)
Epidemiology is one of three principle tools of an evidence-based population health decision methods approach to addressing urban health problems. This first of a 3-course series focuses on the application of

epidemiology and biostatistical methods for addressing the validity, importance, and usefulness of evidence for making sound population health decisions.

MPH 512 EBDM II: Biostatistics (3 hours)
The second of a 3-course series on evidence-based population health decision methods, "Biostatistics" focuses on the application of quantitative methods for addressing the validity, importance, and usefulness of evidence for making sound decisions under conditions of uncertainty. Pre-requisite: MPH 511.

MPH 513 EBDM III: Program Planning & Evaluation (3 hours)
This course presents an evidence-based model (and other models, e.g., PRECEDE/PROCEED) for the design, development, implementation, and evaluation of strategies for improving individual and population health in an urban setting. The third of a 3-course series on Evidence-based Decision Methods, builds on previously-learned tools of communication, informatics, epidemiology and biostatistics.

MPH 521 Environmental Determinants of Health (3 hours)
Urban environmental factors, including biological, physical and chemical are examined as determinants to health, with a particular emphasis on inner city communities and strategies for reducing or eliminating ambient, workplace, and residential environmental threats. Topics include public health biology, environmental justice, risk assessment, and the interplay of science and policy.

MPH 522 Behavioral/Social Determinants of Health (3 hours) Behavioral, social and cultural factors related to individual and population health over the life course, particularly in the context of underserved populations in urban settings, are examined. The emphasis of the course is the identification of factors amenable to change through both individual and societal interventions, using theoretically-sound conceptual models.

MPH 523 Health Systems Management (3 hours)
Healthcare delivery for individuals and populations is examined as a multidisciplinary system of dynamic interactions among human and social systems, concerned with the delivery, quality and costs. The management of urban health systems addresses structure, process and outcomes of health services including costs, financing, organization, outcomes and accessibility of care.

MPH 524 Community Organization/Capacity Building (3 hours)
Community organization and capacity building are presented as integral elements within urban settings, and particularly among underserved populations, for bringing about positive changes to solving local health problems. Topics include coalition building, consultation, community-based participatory research, and transcultural communication. Students are provided an in-depth community experience using service-learning pedagogy.

MPH 525 Health Policy and Leadership (3 hours)
Health policy and leadership are studied as strategies for improving the health of urban populations through the creation and communication of shared visions for a changing future, and the championing of solutions to organizational and community challenges. An emphasis is placed on ethical choices, stewardship, equity, social justice and accountability.

MPH 528 Current Topics (3 hours)
Current topics in urban population health are offered each semester based on student interest and availability of faculty with the requisite training and experience in the topical area.

MPH 529 Independent Studies (3 hours)
Independent studies are used to provide required coursework when the student is unable to attend a regularly scheduled, required course, or when the course has to be repeated. The following letter suffixes apply (e.g., MPH 529A):

A. Urban Public Health Overview
B. Racial/Ethnic Health Disparities
C. Communication and Informatics
D. Epidemiology and Biostatistics
E. Program Planning/Evaluation
F. Environmental Determinants
G. Behavioral/Social Determinants
H. Health Systems Management
I. Community Organization
J. Health Policy/Leadership
K. Special Topics

MPH 530-589: Special Topics (Electives)
530 Series: Overview/Background Courses
540-60 Series: Health Determinants/Strategies for Improvement Courses
570-80 Series: Methods Courses

MPH 541 Consumer Health Advocacy (3 hours)
An overview of health-related products, services, providers, facilities, financing, and consumer protection with an emphasis on issues such as access, quality, equity, purity, safety, effectiveness, and value. The course examines rights, responsibilities, and vulnerabilities of consumers, and opportunities and pitfalls for them in making purchasing decisions in the urban health marketplace.

MPH 571 Geographic Information Systems (3 hours)
Applications of geographic information systems (GIS) to study urban health concerns such as access to healthcare, disease clusters, and health status disparities. Skills in GIS operations such as buffering, layering, and spatial queries are developed through homework and case studies. Fundamentals of cartography and statistical aspects of spatial analysis are introduced.

MPH 590 Urban Public Health Practicum (3 hours)
The practicum transitions student from an academic to practice mindset and are provided in a variety of public/private settings incorporating a minimum of 120 hours. The practicum offerings emulate the ten public health essential services and specify competencies from eight domains, which are used for pre and post performance evaluation.

MPH 591 Urban Public Health Capstone (3 hours)
The Capstone course provides an opportunity to integrate technical and professional knowledge and management/leadership tools into a comprehensive and written report on prioritized urban public health issues from local, national, and global perspectives. Working as an interdisciplinary team, students prioritize recommend interventions and evaluation methods to an external decision-making body.

MPH 592 Urban Health Thesis I (3 hours)
Provides students with knowledge and skills to develop research questions, conduct a literature review, select a theory or organizing framework, formulate a plan for data collection, and develop a thesis proposal for approval. Data collection begins up approval of the proposal, including Institutional Review Board if applicable.

MPH 593 Urban Health Thesis II (3 hours)
Enables students to apply methods of research to the study of urban public health issues culminating in a monograph embodying original research. The monograph is formally presented in a public forum to a thesis committee, and must be potentially publishable or have public health impact. May be repeated for credit.

MPH 594 Urban Clinical Health Rotation (3 hours)
The clinical rotation/clerkship in urban clinical health is designed to provide students an understanding of community medicine and public heath, with a particular emphasis among underserved populations. Practical opportunities to integrate clinical and social disciplines are provided. A reflective essay is prepared and formally presented in a public forum.

MPH 595 Urban Health Comprehensive Exam (1 hour)
In addition to a thesis, capstone or clinical rotation culminating experience, all students will take a comprehensive exam. The student registers for 1-hour (audit) each semester until the exam is passed.

COLLEGE OF SCIENCE AND HEALTH FACULTY

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COLLEGE OF SCIENCE AND HEALTH FACULTY

Medical Assistant Program **(323) 563-4954**

M. Victoria Cutler, M.P.H., C.M.A., CPT-1, Program Director/Instructor
Wendy Barner Jackson, CPT-1

Nuclear Medicine Technology
/Medical Imaging Technology **(323) 563-5835**

John Radtke, M.S., C.N.M.T., R.T.(R), Interim Program Director
Amanda Swift, BS, NCT

Pharmacy Technology Program **(323) 563-5890**

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Physician Assistant Program **(323) 563-5950**

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Girija Charugundula, M.D., Interim Medical Director/Assistant Professor
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Sybil Bordenave, B.S., P.A.-C., Clinical Coordinator/Instructor
Deborah Christian, B.S., P.A.-C., Clinical Instructor
Beverly Lassiter, M.P.H., P.A.-C., Academic Coordinator/Assistant Professor
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Pre-Healing Arts Program **(323)563-5868**

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College of Medicine Administration

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DEAN

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CHAIR, URBAN UNDERSERVED COLLEGE

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College of Medicine Administration

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Curley Bonds, M.D.
PSYCHIATRY

Vaughn Payne, M.D.
RADIOLOGY

Nand S. Datta, M.D.
SURGERY

History of the College of Medicine

Initially known as the Charles Drew Postgraduate Medical School, the Charles Drew College of Medicine was created to ensure that the Martin Luther King, Jr., Hospital would be able to provide high-quality service to the community, and to train professionals capable of providing care to similar underserved populations. Initial efforts were devoted to training specialists in medicine and providing continuing education for local healthcare providers. In 1968, the medical school received a Regional Medical Program (RMP) grant. The Watts/ Willowbrook District Advisory Committee was formed and provided the forum for a professional community dialogue which helped to shape the school's Mission.

The school signed an affiliation agreement with the County of Los Angeles in 1971 and the first annual contract between the school and the county Department of Health Services was formalized. The relationship between the two entities became operational. When the hospital opened in 1972, responsibility for direction of the hospital's medical services was assigned to the Charles Drew University's department chairmen, each of whom was designated chief of the hospital's corresponding clinical service. At that time, employees of the Charles Drew University Postgraduate Medical School numbered a mere 109 people; 29 of these were full-time faculty and nine were department chairs.

In 1973, the school issued a three-volume "Master Plan Study" which provided the blueprint for the development of the Charles Drew University over the next decade. The report focused on the creation of an infrastructure that would facilitate the physical growth of the campus as well as the creation of programs. These programs would emphasize community collaboration and seek to improve the health of residents in the neighboring Watts and Willowbrook communities. In that same year, the school boasted a total of 114 trainees; 74 were interns and residents and 40 were physician assistants.

In 1978, the Charles Drew University Post Graduate Medical School entered into an affiliation agreement with the University of California, Los Angeles, to develop a program for undergraduate medical education leading to conferment of the M.D. degree. Since its first students entered the program in the Fall of 1981, the program has graduated more than 550 students. The Charles Drew University has also expanded its offerings into areas of professional study and training closely elated to medicine, beginning with the establishment in 1983 of the College of Science and Health.

On September 22, 2006, King/Drew Medical Center (KDMC), formerly known as Martin Luther King, Jr., the primary clinical site for all American Council for Graduate Medical Education (ACGME)-accredited Charles Drew residency programs, lost its CMS accreditation and funding effective November 30, 2006. This development was coupled with the earlier loss of JCAHO accreditation in February 2005, which meant that KDMC was no longer meeting the ACGME Institutional Requirements relating to accreditation for patient care. Despite this series of setbacks which resulted in the University decision to seek Voluntary Withdrawal of accreditation of all 15 university-sponsored GME programs, effective July 2007, the education of young physicians remain a critical element of the Charles Drew University mission to:

...to train physicians and allied health professionals to provide care with excellence and compassion, especially to under-served populations.

The College of Medicine

Faculty of the Charles Drew University College of Medicine perform an enormous scope of work to fulfill the College's mission of education, patient care, research, and service in improving healthcare in underserved communities.

The College's faculty train 96 medical students in the CDU/UCLA Medical Education Program. College of Medicine faculty also conduct programs in Continuing Medical Education (CME) for faculty and community physicians. The Charles Drew University is one of only a dozen schools requiring medical students to complete a research thesis for graduation.

Faculty supervise approximately 31 community-based programs affiliated with Charles Drew University. These affiliated programs are central to the University's teaching. The community-based programs serve as clinical teaching sites, community service hubs, and demonstration projects for testing innovative methods of healthcare delivery, clinical care, and health services research.

The College of Medicine faculty are also responsible for teaching an array of pre-collegiate programs that make up the Charles Drew University Extended Science Pipeline Programs. Individual programs in which College faculty are involved include: Project Head Start, the Saturday Science Academy, the Post Baccalaureate, the Lincoln Drew Elementary Magnet School, and the King/Drew Medical Magnet High School. The pipeline concept has been endorsed by the American Association of Medical Colleges and various national commissions as a method for encouraging underrepresented populations to pursue higher education and careers in healthcare.

The Offices of the Dean in the College of Medicine are organized into the divisions of Student Affairs and Curriculum, Graduate Medical Education, Faculty Affairs (including Continuing Medical Education) Clinical Affairs, and Research. To implement its Mission, the College of Medicine has developed a five-year plan. The major goals and objectives are as follows:

COM Mission

The mission is to *conduct education and research in the context of community service in order to train physicians and allied health professionals to provide care with excellence and compassion, especially to underserved populations.*

COM Vision

The vision is to *establish a 21st century mission-based medical school recognized for academic excellence and for producing physician leaders to transform the health of diverse and underserved communities.*

Education

1. Assume national leadership in the development of innovative and effective medical education programs.
2. Establish a national model that will focus on producing high quality physicians who will provide healthcare to diverse and underserved communities.
3. Become the preeminent medical education institution for the development of innovations in primary and specialty care in diverse and underserved communities.
4. Provide leadership and unique solutions for addressing physician manpower shortages in diverse and underserved communities.
5. Provide greater access for minority physicians to the full spectrum of medical fields including academic medicine, primary care and clinical subspecialties.
6. Support a culture in which trainees develop a commitment to leadership, service and life long learning.
7. Utilize continuing medical education to assist faculty and community physicians in learning and practicing cutting-edge medicine and patient-centered methodologies.
8. Provide high quality and effective academic services (e.g. Educational technology, learning skills development, and faculty development) to support faculty and students in achieving educational excellence.

Research

1. Become recognized as a national center of excellence in Translational research related to improving the health, healthcare and quality of life of diverse and underserved communities.
2. Provide a productive research environment that supports the initiation, development, implementation, and dissemination of high quality scholarly research consistent with the institutional Mission.

Patient Care

1. Recruit and develop high quality faculty who are nationally recognized for clinical care and medical innovation relevant to the institutional mission and communities served.
2. Become a nationally recognized institution for physician leadership and improvement in the quality of health for multicultural populations and the medically underserved.
3. Develop a geographically distributed clinical enterprise that supports high quality patient-centered, population-based care across the full spectrum of California communities including diverse and underserved populations.

Seven Expectations

Seven Expectations for students, faculty, and staff of the College of Medicine:

1. Excellence
2. Innovation
3. Leadership

Expectations to character and inner strength.

4. Commitment
5. Perseverance
6. Discipline

The courage to do what is uncomfortable but what you know is right and is necessary.

7. Courage

College Governance Committees

Faculty Council

The Faculty Council is the governance body of the College of Medicine. It meets bimonthly and meetings are open to all faculty members in the College. The Faculty Council leadership also participates in university governance through representation on the Academic Senate.

Office of Medical Student Affairs Curriculum

The Office of Medical Student Affairs (OMSA) provides academic, matriculation and personal support services to students in the CDU/UCLA Medical Education Program. These services include: academic counseling and scheduling, information regarding graduation and licensure requirements, and assistance and referrals for academic and personal needs. The office is also responsible for the administration of student admission and financial aid, in coordination with the UCLA Student Affairs Office.

General information about the College of Medicine and its programs can be obtained from the Office of Medical Student Affairs.

The associate dean for medical student affairs and the staff provide an environment in which the academic and personal needs of students are met on a daily basis. Matters of serious concern may be brought to their attention with assurance of strict confidentiality.

The office is open Monday-Friday, 8:00 a.m. to 5:00 p.m.

Office of Medical Student Affairs
W. Montague Cobb Medical Education Building
Charles Drew University
1731 E. 120th Street
Los Angeles, California 90059

General Information	(323) 563-5956
Student Affairs	(323) 563-4888
Admissions	(323) 563-4952

David Geffen School of Medicine at UCLA Student Affairs Office

The UCLA Student Affairs Office (SAO) is located in the UCLA Center for the Health Sciences, Room 12-109. UCLA staff is available to answer questions and provide assistance while students are on the campus.

Important telephone numbers at the UCLA office of Student Affairs include the following:

Student Affairs Office	(310) 825-6281
Financial Aid Office	(310) 794-1629

David Geffen School of Medicine at UCLA, Office of Academic Enrichment and Outreach

The Office of Academic Enrichment and Outreach focuses on supporting individual student performance. Attempts are made to identify and solve educational difficulties that students may be experiencing. Services offered include a pre-entry enrichment program (the Prologue Program), academic and personal advisement, tutorial assistance, and study and test-taking skills workshops. This office maintains a repository of National Board of Medical Examiners preparation materials. The Office of Academic Enrichment and Outreach may be contacted at (310) 825-3575.

Academic Programs

The CDU/UCLA Medical Education Program

The CDU/UCLA Medical Education Program was initiated in 1978, by joint approval of the Regents of the University of California and the Board of Directors of Charles Drew University of Medicine and Science, (known then as the Charles Drew Postgraduate Medical School). The charter class entered in August 1981 as candidates for the M.D. degree.

The Medical Education Program is especially designed to attract students who have an interest in addressing the concerns of underserved populations and who are prepared to do so with competence and compassion. Undergraduate medical students accepted into this program benefit from the best efforts of both the Charles Drew University and UCLA in a combined curriculum.

The Prematriculation Program

During the summer preceding the first year of study, students entering the Medical Education Program are required to attend a one-week pre-matriculation program. The purpose of the program is to orient students to the medical education curriculum, Charles Drew University and the surrounding community. The program emphasizes the development of specific learning skills such as critical thinking, problem solving, and study group interaction which are needed for successful completion of the CDU/UCLA Medical Education Program.

First and Second Years

The first and second years of study are conducted chiefly at the David Geffen School of Medicine, at UCLA.

The block-based curriculum for years one and two has been designed to increase integration of normal human biology with disease processes and clinical skills from the first week of medical school onward. Basic science is taught in the context of its application with planned reiteration. Instruction is coordinated throughout sequentially taught blocks and is driven by cases and accomplished through lectures and discovery in small group discussions, laboratories and conferences. Several organ or disease process systems are grouped into each thematic block. In both years, thematic courses focusing on groups of organ systems are preceded by "foundations" blocks that teach scientific principles that underlie what follows. There is planned redundancy as well as progressive depth and expectations of competency. In a typical block, students concurrently study gross anatomy, the relationship of structure to function, common diseases that affect these systems, and the approach to examining and evaluating these systems. These are integrated by a weekly or biweekly progression of clinical problems.

Progress through this curriculum is evaluated on a pass/fail basis. Regular assessments during each course allow students to track their understanding and adjust study practices or emphasis as indicated. Since content is presented in an integrated format, assessments reflect this mode.

First Year (David Geffen School of Medicine, UCLA)

The following courses are taught in sequential order:

1. Foundations of Medicine
   Pathologic processes, genetics, molecular and cellular biology, basic immunology, and critical appraisal.
2. Cardiovascular, Renal, & Respiratory Medicine I
   Anatomy, pathology, physiology, biochemistry, genetics, clinical skills, imaging, and selected pathophysiologic mechanisms of these organ systems
3. Gastrointestinal, Endocrine, & Reproductive Medicine I
   Anatomy, pathology, biochemistry, physiology, nutrition, clinical skills, genetics, and selected pathophysiologic mechanisms of these organ systems.
4. Musculoskeletal Medicine
5. Clinical Neurosciences I

A preceptor program is offered in which a faculty or house officer preceptor introduces the student preceptee to patient care on the wards and/or in the doctor's office. Interested students and preceptors are matched through the doctoring program, the UCLA Division of Family Medicine, and the UCLA Office of Medical Student Affairs.

Second Year (David Geffen School of Medicine, UCLA)

The courses of the second-year curriculum include foundations in pharmacology, microbiology, infectious diseases, cancer, and hematology; advanced topics in gastrointestinal medicine, nutrition, and reproduction; and advanced topics in cardiovascular, renal, and respiratory medicine.

Third Year (Charles Drew University)

The third year consists of 49 weeks of required clerkships; one week of Clinical Foundations and forty-eight weeks of clinical clerkships. All third year coursework must be completed before a student is allowed to take senior and elective courses. It is in the third year that most students decide their specialty.

Third Year Core Clerkships

All required clerkships are taken at Charles Drew University affiliates.

Clerkship	Duration
Clinical Foundations	**1 week**
Primary Care Continuing Clinic	Longitudinal
Radiology	Longitudinal

Track A Clerkships	**24 weeks**
Surgery Clerkship	12 weeks
General Surgery (6 weeks)	
Surgical Subspecialties (6 weeks)	
Pediatrics Clerkship	6 weeks
Obstetrics and Gynecology Clerkship	6 weeks

Track B Clerkships	**24 weeks**
Inpatient Medicine Clerkship	8 weeks
Psychiatry Clerkship	5 weeks
Neurology Clerkship	3 weeks
Ambulatory Medicine Clerkship	4 weeks
Family Medicine Clerkship	4 weeks

Total Required Weeks	**49 weeks**
Unscheduled Time	
Winter Break	2 weeks
Spring Break	2 weeks

Learning Objectives for Required Clerkships

Upon completion of the required clerkships, it is expected that the student will be able to demonstrate:

1. The ability to take an accurate, focused patient history, including psychosocial and family issues;
2. The ability to perform a complete or focused physical and psychiatric examination;
3. The ability to give a complete, accurate, and organized case presentation;
4. The ability to keep a complete, accurate, organized medical record;
5. Knowledge of common acute and chronic problems across age and gender;
6. A basic knowledge of gender and age-specific preventive health measures;
7. Interpersonal skills that enable the development of patient rapport;
8. The ability to use evidence-based medicine to solve clinical problems;
9. Knowledge of appropriate use of imaging modalities, including conventional radiography, ultrasound, CT, or MR imaging;
10. The ability to formulate a patient-centered management plan that incorporates the principles of prevention and health education;
11. Knowledge of, and sensitivity to, cultural and socioeconomic issues that impact patient care;
12. Knowledge and skills needed to provide cost effective and appropriate care;
13. Skills in life-long learning, including the ability to search computerized medical databases;
14. The ability to utilize other members of the health care team, including consultant physicians, nurse practitioners, nutritionists, and mental health professionals.

These learning objectives have been compiled by the Educational Policy and Curriculum Committee (EPCC) in an effort to inform students of the expectations of their performance on clinical clerkships. The objectives apply to all the required third year clerkships.

Students can access detailed descriptions of required clerkships in the *Handbook of Courses for Third Year Students* published by the UCLA David Geffen School of Medicine Student Affairs Office or at: http://www.medstudent.ucla.edu. Students may also access course information on **Angel**, the online curriculum resource at the following URL: http://www.medsch.ucla.edu/angel.

Fourth Year: Urban/Underserved College (Charles Drew University)

Curricular revision at the UCLA David Geffen School of Medicine has resulted in the development of smaller focused entities known as "Colleges" to enhance career advising and mentoring in addition to other defined activities. The fourth year of the CDU/UCLA Medical Education Program at Charles Drew University is known as the *Urban/Underserved College.*

One week of College Foundations and thirty (30) weeks of coursework are required for the fourth year. Of these, nine weeks are requirements of the Urban Underserved College. They are:

- 3-week, 300-level subinternship elective in Medicine
- 3-week, 400-level subinternship elective in Intensive/Critical Care
- 3-week, 300 or 400-level Senior Selective (approved listing can be obtained from OMSA)

The remaining 21 weeks may be spent in approved electives at any level. However, no more than 6 weeks may be spent in research or non-clinical electives. Up to 12 elective weeks may be arranged at other community medical centers and hospitals, also known as "away electives". Information on elective courses offered both at Charles Drew University and UCLA is available from the *Handbook of Courses for Fourth Year Medical Students* published by the UCLA David Geffen School of Medicine Student Affairs Office or at http://www.medstudent.ucla.edu.

Course	**Duration**
College Foundations	1 week
Medicine Subinternship	3 weeks
Intensive/Critical Care Subinternship	3 weeks
Senior Selective	3 weeks
Additional Electives	21 weeks
Total number of weeks required for the fourth year:	**31 weeks**

Unscheduled Time	
Winter Break:	2 weeks
Vacation/interviewing	12 weeks

Elective Clerkships
The goal of the Elective Program is to broaden the medical education experience of the student. The fourth year provides the opportunity to investigate personal interests as well as gain exposure to subjects that you may not again have the time to experience after medical school. Elective clerkships may only be taken once the third year core clerkships are successfully completed. The maximum duration of an elective course for which you can receive credit is four weeks.

Electives are of three types: in-depth non-clinical electives, advanced clinical clerkships and sub-internship or sub-internship/inpatient courses. Below are descriptions of the three types of electives. For more information, please refer to the *Handbook of Courses for Fourth Year Medical Students*.

In-Depth Non-Clinical Electives explore the basic sciences as well as the clinical aspects of an organ system and its disease states; or focus on a particular field of study.

In-Depth Non Clinical Electives do not count toward California licensing. No more than six weeks (6) of In-Depth Non Clinical Electives and Research Electives **combined** will be granted toward the 30 weeks of required course work for the fourth year.

Advanced Clinical Clerkships Electives (200 level) enable students to utilize and build on the fundamental information and skills acquired during required rotations from the third year. Courses are structured to increase students' depth of insight into complex medical problems and to stress development of intellectual and decision-making processes.

Sub Internship Electives (300 & 400 levels) are inpatient, emergency or outpatient clerkships that give students increased responsibility for decisions made for the total care of the patient. In general, the student will be expected to function at a first-year resident level.

Research Electives
In addition to clinical clerkships, research electives are also available and may be developed with mentors to meet special interests. Research sabbaticals may be arranged to accommodate a year of study at UCLA, an affiliated hospital, the National Institutes of Health, or any other appropriate institution. Fellowship and research opportunity information is available from the Office of Medical Student Affairs.

Medical Student Research Thesis Program (Longitudinal Experience)
All students in the CDU/UCLA Medical Education Program are required to complete a research project and research thesis. The goal of the research project/ thesis is to address medical conditions commonly encountered in primary care practice. Students develop, design and implement a research project during their two-year longitudinal clinical experience.

Longitudinal Clerkships
Primary Care, PC011
Primary Care, PC02
Radiology (integrated in all rotations throughout the third year)

Scheduling
Students are responsible for scheduling their courses. Each student is provided with a scheduling packet containing samples of forms and an outline of requirements.

Scheduling meetings are held by the UCLA Student Affairs Office and the Charles Drew University Office of Medical Student Affairs. The meetings outline the clerkship scheduling process. An introduction to the National Residents Matching Program is also provided at these meetings.

Scheduling Fourth Year Electives

CDU/UCLA Medical Education Program students receive priority for Charles Drew University electives. All Charles Drew University courses are offered "by arrangement."

The access of CDU/UCLA Medical Education Program students to electives published in the *Handbook of Courses for Fourth Year Medical Students* is equal to that of UCLA students, subject to a computerized lottery system.

To participate in non-UCLA system electives, students must ensure that all necessary forms are routed to the appropriate persons, e.g., course chair, faculty advisor, and Associate Dean of Student Affairs. These forms include the outside institution's own forms, as well as special "away elective" forms. In order for the Associate Dean of Student Affairs to accurately complete the paperwork, it will be necessary to provide documentation of an active personal health insurance plan and evidence of Rubella status (a record of immunization or result of a screening test). Upon receipt of all paperwork, the Office of Medical Student Affairs will complete the forms, retaining for the student's file the documentation of personal health insurance, rubella immune status, and other relevant information; and will then forward the completed application to the institution at which the elective will be taken.

An elective is not considered to be approved until all required signatures have been obtained.

Prior to starting the senior year, students are to complete an elective scheduling form outlining their proposed schedule. Each student is to discuss the schedule with the Associate Dean of Student Affairs.

Changes to a student's elective clerkship schedule may be accomplished by completing an add/drop form with the Charles Drew University Office of Medical Student Affairs. An appropriately completed and signed add/drop form must be provided to the Associate Dean of Student Affairs at least 30 days before the requested date of the addition or deletion of a course from a student's program.

Grading System

The CDU/UCLA Medical Education Program currently has a strict pass/fail grading system for all four years.

Evaluations

There are three categories of evaluations: Student Evaluation of Clerkships and Faculty; Faculty and Resident Evaluations of Students; and Clerkship Director's Summative Evaluation and Grading.

Student Evaluation of Clerkships and Faculty

Medical students are responsible for providing evaluation as requested through the standardized evaluation system, "CoursEval". The data collected is used in the aggregate to evaluate courses, curricula, and faculty, and the data is reported back to Clerkship Directors for use in improving teaching and rotations. The time and tools are provided to the student for critiquing the instructional program, and it is incumbent on the student to provide the information for assessment. Constructive criticisms as well as positive recognition will be appreciated and the anonymity of the student is protected. The URL for the web-based program is http://evaluation.medsch.ucla.edu/. Students complete evaluation forms online upon completion of a given clerkship.

At the close of a clerkship, each student will receive an email reminder that he/she is required to complete the clerkship evaluation. Results of each clerkship rotation evaluation will be available to clerkship directors after they have completed and submitted the students' grades. The individual faculty evaluations will be given to the clerkship directors twice a year. This is done in order to protect the anonymity of the students.

The clerkship directors are responsible for providing feedback to faculty on the clerkship and on their individual evaluations. Students who do not complete the evaluations in a timely manner will receive reminders.

Students who are delinquent in completing their clerkship and faculty evaluations will be referred to the Office of Medical Student Affairs. Further penalty for not completing the evaluations will be determined by the Associate Dean for Medical Student Affairs.

Faculty and Resident Evaluation of Medical Students

Attending faculty, house staff, and fellows who have worked with medical students for one or more weeks must complete their evaluation of each student supervised and forward the completed evaluation form (via web-based system) to the appropriate Student Clerkship Coordinator. The Clerkship Director will use the comments to produce the Summative Evaluation and Grade Report.

Clerkship Director's Summative Evaluation and Grading of Medical Students

Clerkship Directors are responsible for providing students with meaningful, written descriptions evaluating performance in the clerkship. All clerkship directors prepare and submit narrative descriptions for all students.

A web-based evaluation program has been implemented. The URL is http://ess.medstudent.ucla.edu/. A login and password is assigned to clerkship directors and their coordinators by the UCLA Student Affairs Office upon completion of training on the system.

All performance evaluations must be submitted to the web-based system within six weeks of the conclusion of the clerkship. Evaluations may be reviewed via the web or in the OMSA.

Graduation Requirements

To be awarded the M.D. degree from the CDU/UCLA Medical Education program, the following are required:

- Successful passage of each year of the four-year medical school curriculum
- Annual recommendation for promotion by the Progress/Promotions Committee
- Passage of the USMLE Step 1, Step 2 CK and Step 2 CS
- Passage of a Clinical Performance Examination (CPX) at the end of the third year
- Completion of requirements of the 4th year Urban/ Underserved College

Postgraduate Employment Opportunities (Internships and Residencies)

Most students make their choice of specialties during the third year. Except for some programs requiring "early matches" (e.g., neurosurgery, ophthalmology), interviews for internships and residencies are generally conducted during fall of the senior year. Students typically apply for these programs through the National Resident Matching Program (NRMP), more commonly known as "The Match." The NRMP application and matching process is coordinated through the Office of Medical Student Affairs by the Associate Dean of Medical Student Affairs. Students will be given an orientation to "The Match" in the spring of their junior year.

Graduates of the CDU/UCLA Medical Education Program enter into intern positions at institutions throughout the United States at the Postgraduate Year I (PGY-I) level.

Admissions and Fees

Overview

The CDU/UCLA Medical Education program seeks to provide an education in the scholarly and humane aspects of medicine and to foster the development of leaders who will advance medical practice and knowledge in underserved areas of the United States and abroad. The admissions committee seeks to admit students who are best suited for the educational program and mission of the School. In particular, it looks for intelligent, mature, and highly motivated students who show promise in becoming leaders in medicine. The admissions committee also considers very carefully personal qualities necessary for the successful study and practice of humanistic medicine. These include integrity, professionalism, dedication to community service, scholastic accomplishments and potential.

The CDU/UCLA Medical Education Program admissions committee is committed to diversity by ensuring adequate representation of women and all minority groups with diverse interests and backgrounds. All applications are given careful consideration without regard to gender, race, age, religion, national origin, sexual orientation, or financial status. In evaluating

candidates, the committee takes into consideration many factors including academic record, MCAT scores, record of activities and accomplishments, and recommendations from premedical committees and science teachers. The personal interview with one or more members of the admissions committee is an integral part of the selection process.

Students who are admitted into the program spend the first two years of medical school on the campus of UCLA at the David Geffen School of Medicine. World-renowned leaders in medical education have implemented an innovative preclinical curriculum ensuring a quality science foundation. The third year of medical education is spent at Charles Drew University located in South Los Angeles approximately 17 miles from the Westwood campus. Here, students rotate through the various services including pediatrics, psychiatry, obstetrics/gynecology, surgery, Family Medicine and internal medicine.

A unique component of the CDU/UCLA Medical Education program is the longitudinal primary care clinical experience. Students in the third year spend one day bi-weekly at a primary care clinic located in an underserved area of Los Angeles. In addition, students are required to develop and implement a primary care research project, and produce a thesis with a faculty mentor that will be presented at the annual research colloquium just prior to graduation. The fourth year begins with a one-week orientation designed for students to hone their clinical skills and prepare for residency. A mentorship program in the fourth year allows the students to work closely with faculty to ensure appropriate career and academic guidance and successful completion of the research thesis.

Students successfully matriculating through the program are encouraged to pursue additional postgraduate training or scholarly activity on the UCLA campus. Students may choose programs in either the Schools of Public Health or Business. Graduates of the CDU/UCLA Medical Education have also successfully completed joint MD/PhD degrees.

Academic Requirements

The following courses are required:

- One year of college English to include the study of English composition
- One year of college mathematics to include the study of introductory calculus and statistics
- One year of college physics, (with laboratory)
- One year of general biology (with laboratory)
- Two years of college chemistry to include the study of inorganic chemistry, quantitative analysis and organic chemistry (with laboratory)

The following courses are recommended:

- One year of foreign language (Spanish is highly recommended)
- Coursework in Humanities
- Coursework in Computer Skills

Preference shall not be given to undergraduate science majors over non-science majors. Applicants are urged to acquire a broad experience in the humanities, behavioral sciences, and social sciences in their college years, but they should follow their own interests whether in the arts or in the sciences. Prior research experience and conversational Spanish are highly recommended but not required.

High school and advanced placement courses do not fulfill these requirements. If an applicant has been excused from a required college-level course, another course at the same or higher level must be substituted. Applicants currently enrolled in a professional or graduate school must be in the terminal year of the degree program to be considered for admission to the first-year class. Post-Baccalaureate students are encouraged to apply.

Students must complete all premedical requirements before beginning the first year of medical study, although these requirements need not be completed at the time the application for admission is filed.

All students must take the Medical College Admissions Test (MCAT). Arrangements for taking the MCAT must be made directly with the MCAT Program Office, http://www.aamc.org or (202)-828-0690.

Applicants are strongly urged to take the MCAT in the spring of the year of application. Please refer to the AAMC web site for more information. The test must be repeated if, at the time of the application, more than three years have elapsed since it was taken.

Admissions Process

In order to be considered for admission to the CDU/UCLA Medical Education Program, all applicants are required to follow the procedures listed below:

1. Fulfill the academic requirements.

2. Submit an application through the American Medical College Admissions Service (AMCAS), Association of American Medical Colleges (www.aamc.org/amcas). Completed applications and supporting documents must be received by AMCAS no later than November 15 of the year preceding anticipated entry.
3. Take the Medical College Admissions Test (MCAT).

Selected applicants will be invited to submit a supplemental application and three letters of recommendation or a composite report from a professional advisory committee of the student's college or university. The deadline for receipt of this additional information is January 31 of the year in which entry is anticipated.

Selected applicants who are invited to submit and complete the supplemental application process will be invited for an interview with members of the admissions committee.

Refer to website (www.cdrewu.edu) for updated information.

Transfer Application
Admission is granted into the first year of the Medical Education Program only. The CDU/UCLA Medical Education Program does not accept transfer students.

Application Processing Fee
An application fee of $50 is required for all applicants invited to submit a supplemental application. Fee waivers are granted only with approval of the Admissions Committee and a copy of the AMCAS fee waiver documentation must be submitted.

Registration
During the four years in the CDU/UCLA Medical Education Program, students are registered at University of California, Los Angeles, for a total of eight semesters and one summer session. Enrollment is distributed as follows:

First Year:	Fall, Spring
Second Year:	Fall, Spring
Third Year:	Summer, Fall, Spring
Fourth Year:	Fall, Spring

Annual Fees and Expenses
Tuition and fees of the CDU/UCLA Medical Education Program are determined by the Regents of the University of California and are subject to change without notice. Refer to the Registrar website: http://www.registrar.ucla.edu/Fees for updated information.

Refund Procedure
Prior to the first day of instruction, fees paid are refunded in full. After that, refunds are determined based on the number of weeks classes were attended. For more information including a schedule of refunds, refer to the registrar website at http://www.registrar.ucla.edu/archive/refund/refund07-08.htm.

Financial Aid

The David Geffen School Medicine Student and Resident Financial Services Office administer all financial aid for students of the CDU/UCLA Medical Education Program, regardless of their year in the program. Responsibilities of this office include the processing of all applications, assessment of student eligibility for financial aid, and awarding of financial aid.

Financial aid application forms are only sent to students accepted into the CDU/UCLA Medical Education Program.

In general, awards of both loan and scholarship funds are made on the basis of demonstrated financial need-that is, the difference between the standard costs of attendance at school and the student's resources from parents, spouse, and self. However, there are several awards which are made primarily on the basis of academic excellence. Awards are determined annually, and support in subsequent years is dependent on continued demonstration of financial need, availability of funds, and satisfactory academic progress as determined by the College of Medicine and by the appropriate promotion committee.

Details about financial aid are provided at the time of application, and supplemented by information posted by the David Geffen School of Medicine Student and Resident Financial Services Office on the following website: http://www.medstudent.ucla.edu.

The Office is located at the Center for the Health Sciences (CHS), Room 12-109, (310) 825-4181.

Medical students are eligible to receive need-based aid for the normative four-year length of the M.D. program. Up to one year of additional aid may be granted to a student required to repeat course work, if a minimum of two-thirds of the normal academic load is carried. However, if a student is allowed to repeat a second year (or third semester), financial aid will not be provided during that specific year or semester.

Foreign nationals are generally not eligible for student aid. Such students may be required to submit letters explaining how they will finance their education.

Application Deadlines
There are no deadlines for entering first-year students. However, the sooner the forms are received, the sooner an award can be made. The process requires approximately six weeks from receipt of application to disbursement of a check.

After the first year, continuing students must reapply by the deadline date each year to receive full consideration for financial aid. When awards are made, the offer letter must be signed and returned immediately, in order to prevent any delay in processing and dispensing the awards.

Types of Aid Available
The UCLA David Geffen School of Medicine generally offers a combination of grants, scholarships, and loans to help finance a student's education. The ratio of scholarship to loan may vary from year to year depending upon the availability of funds and current regulations.

Should a student be awarded a private scholarship, he/she is responsible for informing the Financial Aid Office immediately, with the name and address of the awarding entity. For complete information, go to the David Geffen School of Medicine Student and Resident Financial Aid Office website (http://www.medstudent.ucla.edu).

Emergency Loans
CDU/UCLA Medical Education Program students may take advantage of UCLA funds that are made available on the UCLA campus for emergency purposes. These loans provide from $75 to $300 for a short period of time (30-90 days) in order to help a student overcome temporary financial problems. Loans may be obtained in one day and are interest-free. Repayment of loans by the due date is a requirement for continued registration. There is a $10 late fee for all loans repaid after the due date.

Extramural Funding

The following scholarships, fellowships, and grants are offered by agencies other than the University, but are coordinated through the Charles Drew University's Office of Medical Student Affairs. To apply for these funds, CDU/UCLA Medical Education Program students should obtain an application and/or letter of support from the Associate Dean of Medical Student Affairs at Charles Drew University.

Association of Black Women Physicians (ABWP)
Minority medical students with demonstrable financial need are eligible for scholarships from this organization. Between eight and ten scholarships are awarded annually, the amount varying according to individual need. Winners are announced in mid-October at the time of the annual dinner dance of this organization.

Auxiliary to the Charles Drew Scholarship
This fund has been made possible by Los Angeles minority physicians, spouses, and friends through the Charles Drew Medical Society and Auxiliary. Minority medical students in the sophomore or junior year with demonstrated financial need and leadership /community involvement may apply by May 15 of a given year. Applications are disseminated by the Office of Medical Student Affairs each April.

National Medical Fellowships
National Medical Fellowships, Inc. is a nationwide private organization that provides financial assistance to minority medical students for their first two years. Eligibility is limited to minority students (African-Americans, Mexican-Americans, mainland Puerto Ricans, and Native Americans) who have demonstrable financial need and who are United States citizens. Application for these awards requires a Dean's letter in all cases.

Pfizer Award Scholarship
Pfizer presents two awards annually of $12,500 to two minority students identified by the Charles Drew University Medical Student Awards Committee. The award is based upon academic performance and potential for research.

Academic Policies

Leaves of Absence
A leave of absence may be requested and granted for academic, research or personal reasons, with the understanding that the student must arrange with the relevant course instructor to satisfactorily complete all work that is missed. A leave of absence may extend for one year. Examples of approved leaves include but are not limited to: pursuit of another degree such as a Master in Public Health or Business Administration, for research, illness, maternity/paternity leave, child-

care, bereavement of family member, re-evaluation of career goals, financial difficulty or family issues. An Administrative Leave of Absence can also be initiated by Charles Drew University's Medical Student Promotions Committee. Examples of administrative leaves include, but are not limited to: Honor Code Infractions, noncompliance with health clearance requirements, nonpayment of tuition/fees, remediation (e.g. USMLE failure or unsatisfactory academic progress).

Leave of Absence Procedure

To request a Leave of Absence from the medical curriculum, complete a "Request for Leave of Absence Form" and submit it to the Charles Drew Office of Medical Student Affairs. If you have questions about filling out the form, please contact the Office at (323) 563-5956. The Associate Dean of Student Affairs will meet with you to discuss the reasons for your leave. Your request for a leave of absence will be considered immediately and you will receive a written response. Please be sure to include all of the information requested on the form, or review of your request may be delayed. If approved, the Leave of Absence request will be forwarded to the UCLA Student Affairs Office. Students are responsible for meeting with the Director of Student Affairs regarding withdrawal from courses or electives during their absence.

Students receiving financial aid are required to schedule an appointment with the UCLA Financial Aid Office upon taking a leave and upon returning to the curriculum. Decisions made with regard to a student's academic status are not made with consideration of financial aid policy. Deviations from the normal medical course sequence and course load may have an effect on a student's eligibility for financial aid. If a student is receiving aid, it is the student's responsibility to be familiar with the Satisfactory Academic Progress Policy (SAP), and to speak with the Financial Aid Office regarding his/her financial aid status.

Readmission must be requested by completing the "Return from Leave of Absence" form and is subject to approval in writing by the Associate Dean of Student Affairs.

Upon request, students who are unable to return to the University at the opening of any semester, or who are forced to discontinue their studies during the academic year for any reason, may be granted an approved withdrawal or leave of absence. This leave is not to exceed one year provided the student's academic record is satisfactory. Should such students desire to return to the University, they must request to do so by completing the "Request to Return From Leave of Absence" form. The Associate Dean of Medical Student Affairs will review and act upon the request.

Students are considered to have terminated their connection with the CDU/UCLA Medical Education Program if they withdraw without notice, fail to report after a leave of absence, or fail to register for any term within one month after the opening of the term unless a withdrawal or leave of absence has been approved.

Grading

It is the responsibility of course instructors to evaluate student performance at appropriate intervals and to communicate to students the quality of their work at the earliest possible time. Methods of evaluation may include written or oral examination, written reports, demonstrations, or other means determined by the instructor.

Evaluations employ the letter grades of P (Pass) and F (Fail). A narrative description of each student's performance will also be prepared and employed in evaluation. A "**letter of distinction"** will be written for all students who exhibit a performance that is of extraordinary quality.

The designation of Incomplete "Inc" is to be used only when the student has not completed the course in question. It presumes circumstances of extenuation or mitigation (e.g., illness, unavoidable absence) that have made the student unable to finish. An Incomplete is not to be used as a qualified pass or fail and is to be viewed as a non-prejudicial entry on the student's record. The means by which the course is to be completed shall be determined by the course instructor following discussion with the student. An Incomplete not removed by the end of the academic year in which the course commenced will be converted to a "Fail". Exceptions to this rule due to serious, protracted illness or other extenuating circumstances may be granted by the Associate Dean of Student Affairs upon petition by the student, to be submitted no later than 10 calendar days prior to the end of the academic year in which the incomplete record should have been reconciled.

Disputed Grades

Students who believe that a grade has been assigned by criteria not directly related to performance in the course (including personal bias or discrimination on the basis of race, sex, or disability not pertaining to academic performance) may submit a written statement of appeal to the UCLA Senior Associate Dean

for Student Affairs (for courses taken during the preclinical years) or to the Charles Drew University Associate Dean of Medical Student Affairs (for courses taken during the clinical years).

The written statement should include a detailed description of the complaint, including all relevant information. It must be signed by the person against whom the alleged misevaluation occurred and shall be submitted no later than 20 calendar days after the evaluation is posted or filed with the UCLA Student Affairs Office.

The Associate Dean for Student Affairs may, in his/her sole discretion, extend the submission time for a maximum of 15 additional calendar days for good cause shown. The appeal shall be heard, if practical, at the next Student Affairs Deans' Committee meeting, but in any event no later than 30 calendar days after the date the written notice of appeal is received. The student and the instructor or clerkship director involved shall be notified of the date, time, and place in advance of the meeting, which they will be invited to attend, to present relevant information. A decision will be rendered by the Appeals Committee and communicated to the student and instructor or clerkship director in writing within 90 calendar days after the date the Committee has completed its investigation into the matter.

Professionalism

Students are expected to exhibit professional behavior throughout their medical school training. This behavior includes the student's ability to meet professional responsibilities, the ability to improve and adapt, and the ability to establish appropriate relationships with patients, families, and other members of the healthcare team. If a student is having trouble developing these required skills, the Clerkship Director/Course Chair will give feedback to the student and make suggestions for improvement. If the behavior is repeated or initially serious enough, the Clerkship Director/Course Chair will complete a ***Physicianship Evaluation*** and review it with the student. If the performance still does not improve enough to meet the standards of physicianship, then the evaluation form will be forwarded to the Associate Dean for Student Affairs.

Academic Promotion

Students who are in good academic standing will be advanced from one academic year to the next. It is the prerogative of the Promotions Committee to recommend remedial work for students whose overall performance seems weak to the majority of the Committee. Thus, status in any academic year presumes the successful completion of all work in the previous year. Advancement from one year to the next is determined by the appropriate Promotions Committee based upon grades for coursework, performance on the National Board of Medical Examiners examinations, and subjective factors indicating not only the student's mastery of academic material, but further demonstration of a professional attitude and the ability to assume responsibility for patient care. Instructors and Associate/Assistant Deans for Student Affairs work closely with students to institute remedial measures. It is the function of the Office of Medical Student Affairs to determine whether academic problems are related to financial or other personal concerns and to assist the student in every way possible.

Unsatisfactory Performance during the First and Second Years

A separate Promotion Committee consisting of the respective course chairs for that year's curriculum is convened for each of the medical school classes at the end of the academic year. If needed, a special promotion committee meeting may be convened at any time. It is the responsibility of the Promotion Committees to determine whether each student has progressed satisfactorily in all academic and clinical work. Recommendations by the Promotion Committees are made to the Faculty Executive Committee (FEC) regarding promotion or other course of action. All Promotion Committees' recommendations are reviewed by, and are subject to approval by, the Faculty Executive Committee. Alternatives to promotion may be:

1. Repeating courses in which performance was unsatisfactory;
2. Repeating all courses for the year;
3. A definite period of leave of absence;
4. Dismissal.

The following have been established as necessary steps in the procedure for considering repetition of a year of study or for dismissal of a student for unsatisfactory academic performance or inadequate patient care. The student is informed that his/her academic standing is in question and is asked to meet with an associate or assistant dean of Student Affairs, who informs the student of the date, time, and place at which the Promotion Committee will meet. The student is invited to present his/her case prior to the deliberations of the Committee and is asked to be available for questions from the committee.

As soon as practical after the committee meeting, the student is informed verbally of its recommendation; written notification is subsequently sent. The student is allowed to inspect all of the material in his/her file

related to academic performance and evaluation in accordance with the Family Educational Rights and Privacy Act and may read that portion of the minutes of the Committee responsible for the recommendation which pertains to him or her.

To appeal a recommendation of the Promotion Committee, the student must submit a written statement describing the specific reasons for appeal, including any special or mitigating circumstances that should be considered, and any other relevant information.

This statement should be signed by the student and submitted to the Office of Medical Student Affairs, UCLA David Geffen School of Medicine, Los Angeles, CA 90095-1720 no later than 15 calendar days after the Promotion Committee's recommendation is made known in writing to the student. An appeal will be considered only if based upon appropriate cause, such as allegations of procedural, personal bias (including, but not limited to, allegations of discrimination on the basis of race, sex, or disability) or specific mitigating circumstances contributing to the student's alleged unsatisfactory performance. An alleged error in academic judgment or evaluation will not be considered as an appropriate basis for appeal. The appeal will be heard, if practical, at the next monthly meeting of the FEC but, in any event, no later than the second regularly scheduled monthly meeting of the FEC after the date on which the written notice of appeal is submitted. The student will be notified of the time, place, and date in advance of the meeting at which the appeal is considered.

The student is entitled to bring a representative to the FEC meeting to support his/her presentation. A decision will be rendered by the FEC and communicated to the student in writing within 15 calendar days of the date on which the appeal is heard. In the event of an adverse determination, the student has the option of final appeal to the Deans of the David Geffen School of Medicine at UCLA and Charles Drew University College of Medicine. Such an appeal must be in writing and must include a copy of the original grievance and all pertinent materials to date, such as a copy of the written notice of the FEC's decision, plus a signed statement by the student explaining the reason(s) he/she is appealing the decision. This statement must be submitted no later than 15 calendar days after the student has been notified of the FEC's decision. The final decision shall be made by the Dean of the David Geffen School of Medicine at UCLA after conferring with the Dean of the Charles Drew University College of Medicine. The student will be notified within 45 calendar days of the Deans' final decision.

Unsatisfactory Performance during Third and Fourth Years

All CDU/UCLA Medical Education Program students who have been promoted by the Second Year Promotions Committee at the David Geffen School of Medicine at UCLA will be accepted into the third year of the CDU/UCLA Medical Education Program. During the clinical years of the program, recommendations about students' promotion, graduation, progress, and dismissal are made by the Charles Drew University Medical Students Promotions Committee.

The purpose of this committee is to recommend criteria for promotion, dismissal, and graduation of medical students in the third and fourth years of the program and to recommend which students should be promoted, dismissed, and graduated. The Committee also monitors student progress through the third and fourth-year curricula, recommending remedial action when necessary. The above criteria will be uniformly applied to all students and shall be approved by the Charles Drew Faculty Council prior to implementation.

To fully discharge its responsibilities, the committee shall consider all information relative to each student's academic performance in the total curriculum of the CDU/UCLA Medical Education Program, including premedical, preclinical, required and elective coursework, performance on the USMLE Examination Step 1 and 2, and conduct as a professional. All such information, as well as discussion of the information shall be strictly confidential.

Prior to its making any recommendation about a student, the student will be invited to appear before the committee in order that the recommendation may be based upon all possible information. The Associate Dean of Medical Student Affairs will inform the student of the committee's recommendation as soon as practical and the chair of the committee shall, within five working days, provide written notification outlining the next steps in the process including how to appeal the committee’s action. The Associate Dean of Medical Student Affairs will confer with the Dean of the College of Medicine at Charles Drew University, providing him/her with all relevant information to date.

The student may appeal the decision to the Faculty Executive Committee at UCLA by submitting a written statement describing the specific reasons for appeal, including any special or mitigating circumstances which he/she feels should be considered and any other relevant information. Such statement should be signed by the student and submitted to the

Office of Student Affairs, David Geffen School of Medicine at UCLA, Los Angeles, California 90095-1720. The student will be invited to appear at the meeting of the FEC at which his/her case will be considered and may appear with a representative.

In the event that the decision of the FEC is unfavorable, the student may, within 15 days of the decision, appeal directly to the Deans of the David Geffen School of Medicine at UCLA and the Charles Drew University of Medicine and Science. The UCLA Dean will make a final decision after conferring with the CDU Dean. The student will be notified within 45 calendar days of the Deans' final decision.

United States Medical Licensing Examinations (USMLE)

All students enrolled in the CDU/UCLA Medical Education Program are required to take and pass Step 1, Step 2 Clinical Knowledge (CK), and Step 2 Clinical Skills (CS) of the USMLE before a student is eligible to graduate.

Students must take Step 1 before beginning Clinical Foundations in their third year. Step 1 must be passed in order to advance to the fourth year. Failure of Step 1 may require removal from the clinical curriculum or the student may not be allowed to start the next rotation. The Associate Dean of Medical Student Affairs will meet individually with students who do not pass Step 1 of the USMLE to plan the best course of action. Failure of Step 1 on the third attempt will result in dismissal from the Medical Education Program.

Students must take the USMLE Step 2 CK examination by the date specified in the *Handbook of Courses for Fourth Year Medical Students.* If Step 2 CK is not attempted by the deadline (usually the last day of December of the fourth year), credit will not be given for any course work completed after the deadline and before the examination. No retroactive credit will be given. Failure of Step 2 CK on the third attempt will result in dismissal from the Medical Education Program.

Students must take Step 2 CS examination by the date specified in the *Handbook of Courses for Fourth Year Medical Students.* The clinical performance exam (CPX) given at the end of the third year must be passed before taking the Step 2 CS.

The National Board of Medical Examiners offers self-assessment resources for medical students on its website: http://www.nbme.org/. In an effort to facilitate students' success on these examinations, Charles Drew University's Learning Resource Center offers Step preparation materials for student review. Additionally, the Office of Medical Student Affairs provides limited individual study skills counseling for its medical students.

Please refer to the *Handbook of Courses for 4th-Year Medical Students* for more specific information on the USMLE policy.

Course Responsibilities during Board Review Programs

Since passing Step 1, 2 CK and CS of the USMLE is an institutional priority at CDU, any student may, by the decision of the Associate Dean of Medical Student Affairs, be relieved of course responsibilities in order to take part in an approved USMLE review course. The student so excused must complete coursework missed while completing a USMLE review course.

Student Life

Charles Drew University augments its programs of formal education through community service programs and organizations that provide student activities commensurate with the mission of the University and relevant to the work in which students will be engaged in their professional lives.

The University strives to see that the needs and interests of every student are met and that students are at all times in an atmosphere that is conducive to their social, cultural, and spiritual growth. The atmosphere must also be conducive to the realization and development of a sense of community, state, national, and international responsibility.

Student Health

Before registering at the University, students must show evidence that they have current immunizations, are free from communicable disease, and are physically fit to carry out university work. Copies of these documents must be submitted to the Office of Medical Student Affairs and to the Student Affairs Office (SAO) at the David Geffen School of Medicine at UCLA.

Prior to starting the clinical years, all students are to provide licensed physician-documented evidence of freedom from infectious diseases. The evidence should be based upon physical examination, chest x-ray, tuberculin testing and other methods, as determined by the physician. Students are to consult their private physicians or the Arthur Ashe Student Health and Wellness Center in order to fulfill these requirements and are responsible for all fees not covered by insurance.

Health insurance coverage is required for all students. Proof of such coverage must be presented to the Office of Medical Student Affairs during registration. Students are responsible for their own routine health maintenance and chronic healthcare.

Medical Treatment
UCLA student health insurance is available to all students and may be purchased on the UCLA campus. This health insurance plan requires that the student receive care at UCLA.

When a student is injured while on rotations, he/she should report the injury to the nursing supervisor on the nursing unit and to his/her preceptor.

Counseling Services
Students are encouraged to make use of the personal and academic counseling services provided for them throughout their training. Individual appointments are scheduled for students enrolled in CDU/UCLA Medical Education Program through the Office of Medical Student Affairs at (323) 563-5956.

Identification Badges
There are several types of photo identification badges required of students in the CDU/UCLA Medical Education Program:

Charles Drew University photo identification issued during the Prematriculation Program upon completion of the Charles Drew portion of registration. (This identification indicates the student has met the requirements for UCLA Student Health Services and has provided evidence of a current health insurance policy or has signed a statement that he/she will participate in UCLA's Health Insurance Plan as of September of the current academic year.)

UCLA photo identification, issued by UCLA during first year orientation.

County of Los Angeles photo identification, issued at the start of the clinical years. This identification will not be issued until the student has provided the Office of Medical Student Affairs with evidence of current health insurance coverage, verification of freedom from infectious disease, and an updated registration form.

Students must wear the appropriate identification badges whenever they are at Charles Drew affiliate hospitals or clinics, at the UCLA Center for the Health Sciences, or whenever they are in contact with patients.

Housing
For information, contact the following UCLA offices:

Housing Office	(310) 825-4491
Office of Residential Life	(310) 825-3401

Night Call Rooms
When on call during a clinical clerkship, the student should use the relevant department's 'night call' facilities, which are usually shared with house staff.

Liability during Assigned Travel
The responsibility for safe transportation from Charles Drew University or from students' homes to assigned clinical sites rests with the individual student. All drivers on public thoroughfares in the state of California are required to have car insurance.

Dress Code
A medical student is responsible to the public and to patients and should thus dress and act like a physician-in-training in all patient contact situations. Men are to wear a shirt and tie; women should be dressed in professional attire. All students should wear a short white coat with visible photo identification whenever they are in a clinic or hospital, with a preceptor, or with a patient in any professional capacity.

Student Government/Student Activities
Charles Drew University offers broad and diverse opportunities for student involvement and leadership development, ranging from informal groups in which students share common interests and enthusiasms to formal and organized participation in elective government. Students may choose to participate in student government at the program level, the college level, or by becoming active in the University-wide student organization, Charles Drew Student Government (CDSG).

Participation in University and College Governance
Third and fourth-year medical students who are in good academic standing are eligible to serve on College committees.

For each of the committees approved for student membership, the 3rd and 4th year classes are each entitled to one representative and two alternates. Each class selects its representatives and alternates through

a democratic process and submits the roster of selectees to the Associate Dean of Medical Student Affairs, who verifies that each person on the roster is in good academic standing. The slate of nominees is then presented to the College's Faculty Council, which has the right of final approval.

Student representatives will serve one-year appointments but may serve successive terms if appointed or elected. The following College committees are approved for student representation:

The *Educational Policy and Curriculum Committee* reviews and makes recommendations on educational policy and procedure and critiques the administration and curricula of all medical student education programs. Each department in the College is represented on the committee by one faculty member who may serve an unlimited number of consecutive two-year terms. The committee meets monthly.

The *Medical Student Admissions Committee* participates in the recruitment and selection of a medical student body that is committed to the University's mission and is motivated and capable of fulfilling the academic requirements of the CDU/UCLA Medical Education Program with, particular emphasis on its primary care curriculum. This committee develops, maintains, publishes, and distributes guidelines for medical student admissions which state the admission policies and procedures developed by the faculty according to its bylaws.

Any breach of confidentiality as a student member of either of these committees may be considered grounds for immediate dismissal from the committee.

College Policies

Attendance Policy

The attendance of all students is required at all regularly scheduled class sessions, laboratories, or clinical training sessions and will be used in assessing grades and meeting state requirements. All of the above stated experiences and training sessions are viewed as extremely important by the faculty and, therefore, participation in such sessions is expected of all students on an ongoing and regular basis. Students in the College of Medicine will adhere to specific attendance policies.

Compliance Statement

Charles Drew University of Medicine and Science, in compliance with Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, the Rehabilitation Act of 1973, and the Age Dissemination Act of 1975 does not discriminate on the basis of race, creed, color, national origin, mental or physical disability, age, or sex in any of its policies, practices, or procedures. The University is in compliance with Title VII of the Consumer Protection Act and the Privacy Act of 1974. This policy includes, but is not limited to, the University's offices and programs related to admissions, employment, financial aid, educational services, and activities.

Harassment

Charles Drew University is committed to providing a work and educational environment that is free of discrimination and unlawful harassment. The University seeks to prevent and prohibit misconduct on the campus, including sexual harassment or any other type of harassment by fellow students, staff, or faculty. Actions, words, jokes, or comments based on an individual's sex, race, ethnicity, age, religion, or any other legally protected characteristic will not be tolerated.

Any student who feels that he/she has been harassed should make it clear to the offending individual that such behavior is offensive and unwelcome. If the behavior continues, the incidents should be reported to the Associate Dean for Medical Student Affairs immediately.

Complaints and Grievances

Charles Drew University believes that the campus environment should be conducive to openly expressed and shared ideas that stimulate professional and personal knowledge and growth.

Students who have complaints against other students should report their complaints to the Director of Medical Student Affairs. Students who have a complaint against a staff member should report their complaints to the staff member's supervisor or Program Director. If the Director of Student Affairs, the supervisor, or the Program Director is unavailable, or if the student believes it would be inappropriate to contact one of those individuals, the student should immediately contact the Associate Dean of Medical Student Affairs. Students may raise concerns and make reports without fear of reprisal.

Honor Code

The students of the College of Medicine have adopted the following statement:

We, students of the CDU/UCLA Medical Education Program, being cognizant of the high ideals of the

profession of medicine and of the part that honor and self-discipline play in the maintenance of such ethical standards, pledge ourselves to observe this fundamental code in our formative years that we may better uphold the honor code for which the profession of medicine has always been venerated.

1. *We will act at all times in a manner creditable to our school and future profession.*
2. *No un-permitted aid will be given or received for an examination, paper, or other assigned work.*
3. *It will be the responsibility of each student to uphold these ideals and aid in their enforcement.*

Further, we agree to the establishment of an Honor Council to review infractions of the above principles during our clinical years at Charles Drew University according to the preceding sections of the article.

During the preclinical years at the David Geffen School of Medicine at UCLA, the students of the CDU/UCLA Medical Education Program are bound by the Medical Code of Ethics as outlined in the Medical Student Honor Code. The Medical Student Honor Code is under the jurisdiction of the UCLA Medical Student Council. Further information regarding the Medical Student Honor Code at UCLA can be obtained from www.medstudent.ucla.edu/current/policies.

Nondiscrimination Policy

The Charles Drew University of Medicine and Science does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted there under, prohibit discrimination on the basis of sex in education programs and activities operated by the Colleges. Such programs and activities include the admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of the Colleges may be referred to the Registrar, who is assigned the administrative responsibility for reviewing such matters.

Student Code of Conduct

The Charles Drew University of Medicine and Science has an obligation to maintain conditions under which the College can carry out its primary function of teaching, research, and public service in accordance with the highest standards of quality and institutional integrity. The Office of Medical Student Affairs reviews all matters relating to student conduct and academic integrity.

In granting each student the M.D. degree, the faculty of the Charles Drew University College of Medicine endorses each student as having maintained the academic, moral, and ethical standards appropriate to the practice of medicine. It is the responsibility of the faculty to help each student recognize and correct any deficiencies before the M.D. can be granted. The formality of any such correction should vary in proportion to the gravity of the deficit.

To this end, every registered student and every instructor with an academic appointment has agreed to abide by the Student Code of Conduct and Academic Integrity guidelines. These guidelines provide the standard by which students, faculty, and administration are encouraged to take reasonable steps to prevent violations. If violations occur, however, they will be handled in accordance with the policies of the College of Medicine.

Procedures for Handling Problems of Conduct

During the first two years, the procedure for handling problems of conduct shall involve the UCLA Student Honor Council. The UCLA Student Conduct Code of Procedures and the UCLA Interim Student Conduct Policies and Student Discipline Procedures in Cases of Harassment, Sexual Harassment, Exploitation or Intimidation are the basis for the Medical School Procedures.

Disciplinary problems are to be differentiated from academic problems. Academic problems are cases of unsatisfactory progression or performance in academic and clinical courses, and may include incompetent, unprofessional, or unethical behavior. The review process for academic problems involves a Promotion Committee consisting of Course Chairs and Student Affairs Deans.

During the last two years, the procedure for handling problems in conduct shall involve the process outlined in the section entitled "Due Process for CDU/UCLA Medical Education Program Students."

Students are expected to comply with the code of conduct established by Charles Drew University. A student who is alleged to have engaged in conduct that is contrary to existing standards may be subject to general or specialized disciplinary processes. The procedures by which alleged violations of policies are adjudicated are covered by this code. Concerns regarding appropriate professional ethics and conduct are the responsibility of the Student Judiciary Committee. Potential applications of this due process procedure may include (but are not limited to):

1. Appealing a grade

2. Theft of or damage to any property of the Charles Drew University or its affiliates, or properties of others while at the institutions;
3. forgery, alteration, or misuse of University documents, records, keys, or identifications;
4. Physical abuse, threats of violence, or conduct that threatens the health or safety of any person at Drew University or its affiliates;
5. Disorderly conduct while on Charles Drew University or affiliates property;
6. Use, possession, sale, manufacture, or attempted manufacture of narcotics, alcohol, or illegal drugs;
7. Obstruction or disruption of any teaching, research, administrative, or disciplinary procedures;
8. Unauthorized entry on Charles Drew University property or unauthorized use of equipment or resources;
9. Failure to comply with University officials or other public officials performing their duties;
10. Possession or use of explosives, dangerous chemicals, or deadly weapons on University property;
11. Misrepresentation of oneself or of an organization or posing as an agent of a program;
12. Soliciting or assisting another in performing an act that would lead to expulsion, suspension, or probation pursuant to this code and performance standards;
13. Violating criminal laws, punishment may involve, but is not limited to, expulsion, suspension, or probation and is independent of any civil or criminal proceedings;
14. Dishonesty such as cheating, seeking or giving unpermitted aid on examination paper or other assigned work, plagiarism or knowingly furnishing false information to the university.

Due Process for CDU/UCLA Medical Education Program Students (clinical years of the program):

The following sections present a step-by-step approach to due process. The process may be activated at any entry point by a student, faculty member, or relevant committee.

Personal Communication

Whenever any faculty member (or relevant committee) believes that a student has demonstrated a deficit, the faculty member (or committee representative) shall approach the student in person as soon as practicable and inform the student of the deficit and of a proposed means for correcting it. If the deficiency can be corrected in a mutually satisfactory way, the matter need go no further. However, if the student or the faculty member is not satisfied with the results of such discussion, either may, after informing the other party, request an informal hearing by writing to the other, within 45 days of the personal discussion.

Informal Hearing

An informal hearing shall be held within 30 days of the written request for same in the presence of an impartial third party (an ombudsman). The ombudsman must be agreed upon by the student and the faculty member, and may not be the Dean of the College of Medicine. The purpose of the informal hearing shall be again to inform the student of the alleged deficit, to allow the student to present his/her version, and to work out, with the help and advice of the ombudsman a mutually satisfactory remedy. The informal hearing shall be held in private and no records kept. Any remedial plan devised shall be put into writing and placed in the student's file.

Formal Hearing

The purposes of a Formal Hearing are to provide a full and fair airing of the relevant evidence concerning a student's deficiency and to give the student a chance to present his/her version of the evidence and his/her views to a body with the authority to recommend action regarding the student. The following guidelines will apply:

1. Request for Hearing: Faculty, relevant committee, or student may request a formal hearing. The request must be in writing and must be made within 45 days of the informal hearing. The request must be addressed to the chair of the College of Medicine Faculty Council.
2. Hearing Body: The Medical Students Promotions Committee has jurisdiction for issues of progress, continuation, suspension, promotion, graduation, or dismissal. An ad hoc committee shall be formed for all issues other than those in the purview of the Medical Students Promotions Committee. An ad hoc committee is appointed by the Chair of the Faculty Council and consists of three faculty members with voting status, and two medical student advisors with nonvoting status.

Rules of Conduct

The student shall be given a written notice of the date and time of the formal hearing. Such written notice shall be received at least 10 days prior to the hearing, and shall contain a written copy of all rules and procedures to be followed:

- The student will be permitted to have an advocate of his/her choice present at the hearing.

- The hearing will be conducted before a quorum of the entire body, rather than a subcommittee thereof, which is to make a decision.
- The student will be given the opportunity to present any relevant evidence, including affidavits, exhibits, and oral testimony.
- The student will be presented with all evidence against him/her, including academic grades and the reports and evaluations used in arriving at those grades.
- The student will be given the opportunity to question any witness who presents evidence against him/her at the hearing.
- Any recommendations resulting from the formal hearing shall be based solely upon the evidence presented at the hearing.
- The findings, decisions, and dispositions of the case shall be stated in writing by the chair of the hearing body, addressed to the chair of the Faculty Council.

Types of Decisions

The hearing body may find "for" the student--in such an event, method of intervention with the relevant faculty member and/or committee must be decided by the Faculty Council and the Dean of the College of Medicine. Or, the hearing body may find against the student and issue any of the following sanctions:

1. An Oral Warning: An oral statement, not to appear in the student's file
2. A Written Reprimand: For violation of specific University policies, including a notice to the student that continued or repeated violations of University policies may be cause for further disciplinary action
3. Probation: A written notice that a student is in danger of suspension or dismissal if specific conditions are not met by a certain time
4. Suspension: Termination of student status for a specific academic term, with reinstatement thereafter. Violation of the conditions of suspension during the period of suspension may be cause for further disciplinary action
5. Dismissal: termination of student status
6. Restitution: Reimbursement by the student for damage to any University affiliate property may be imposed either exclusively or in combination with other disciplinary action.

Business shall be conducted expeditiously and concluded within one month of the beginning of the formal hearing.

The decision of the hearing body shall be relayed to the Faculty Council, which shall uphold or overturn the decision of the hearing body. The student shall not be present at the Faculty Council meeting at which discussion takes place.

The Associate Dean of Medical Student Affairs shall discuss all findings and recommendations with the Dean of the College of Medicine. The student may appeal to the Dean of the College of Medicine within 10 days of the decision of the hearing body.

The Associate Dean of Medical Student Affairs shall present to the UCLA Faculty Executive Committee the recommendations of the hearing body, the Charles Drew Faculty Council, and the Dean of the College of Medicine. The student shall be invited to attend the meeting of the UCLA Faculty Executive Committee at which his case is to be discussed and may be accompanied by counsel. The decisions of the Deans at Charles Drew and the David Geffen School of Medicine at UCLA are final.

Continuing Medical Education

The Charles Drew University of Medicine and Science, Office of Continuing Medical Education (CME) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The last accreditation was held in 2005. The University was accredited for four years and received an exemplary commendation for excellence in needs assessment methodology.

The CME Mission is to provide excellent continuing medical education that will enhance the ability of faculty physicians and community physicians to provide care with excellence and compassion with special emphasis on the 1.4 million patient population of South Los Angeles as well as other underserved populations.

CME is geared to improve the physician's ability to become a health care team leader in clinical care and research. Special emphasis continues to be placed on the provisions of learning resource technology and medical information sciences to assist in the development of values toward continuing self-directed education.

The following objectives are designed to achieve the CME mission:

1. Our CME program exists to provide:
   - Ongoing CME activities updating faculty and community physicians relative to everyday health and patient care issues.
   - Charles Drew faculty, community physicians and our national audience with current, cutting edge developments, research and new technology.
   - Academic faculty development assisting our physicians in effecting system's quality improvement.
   - National awareness of Charles Drew University's unique research efforts related to healthcare disparities.
2. Develop an ongoing comprehensive series of CME programs focused on the clinical and research missions at Charles Drew University including the following topics:
   - Healthcare disparities in the community (RCMI targeted research, such as access to and quality of care, obesity, diabetes, and patient safety)
   - Primary care and social/psychological/ behavior factors in the underserved community
   - Basic science/clinical science interface/new frontiers/alternative medicine
   - Patient-centered care and education programs
3. Enhance and expand the Continuing Medical Education Center with staff to assist faculty and community physicians. The center will provide the latest in technological and educational resources for:
   - Assisting faculty in the design of CME (self-directed CME) through computer assisted instruction, medical academy self-study programs, computer and video simulations, listings of national and local CME courses, multimedia and print instructional materials. The self-directed CME project will include on site and remote access.
   - Assisting faculty in the production of CME programs including two-way video conferencing, artificial intelligence decision support, web-based information, graphics presentation and video production, and access to computerized databases such as Medline.
   - Aid faculty in utilizing technology to improve healthcare.
4. Maintain a central CME office that will assist each department and designated faculty in creation and administration of CME. The office will:
   - Maintain and aid departments in generating documentation necessary for CME accreditation.
   - Provide faculty training and assistance in using educational technology.
   - Provide faculty development in effective teaching and curriculum/program development for CME.
   - Work with the Office of Development on long-range income generation and foundation/corporate/industry support for CME.
   - Develop and maintain mailing lists of community physicians and affiliated professional organizations.

The overall goals for the next five years include:

1. The mission statement will be used more vigorously to determine how effective the program meets its stated intent and purpose and be central to the evaluation of the overall effectiveness of the CME program.
2. Continue refinement of plans to focus more closely on our CME and Research missions, aligning CME activities with core office and functions of the University and the needs of community physicians.
3. Needs identification processes will be expanded to be more inclusive of planning to ensure that needs will be met through effectively designed and delivered educational interventions thereby achieving desired results.

In evaluating the overall effectiveness of the CME program, the mission statement will be used more vigorously to determine how effective the program meets its stated intent and purpose.

The office of CME helps departments in the College of Medicine provide educational programs to physician faculty at Charles Drew University and community physicians in the South Los Angeles service region. Medical students, allied health professionals, medical residents, and fellows also attend programs as appropriate to learning needs and in keeping with the emphasis on linkage of multidisciplinary teams, community physicians, and trainees in promoting lifelong learning through the leadership of the medical school.

Since our last accreditation in 2005, as of 2008 more than 1,625 CME activities have been held with approximately 50,000 physician and non-physician participants. Educational activities are offered on a

weekly and monthly basis. Departments also plan and sponsor half day and longer conferences and symposia each year. These educational activities attract regional, national, and international faculty as attendees.

Graduate Medical Education

Background and Rationale for Graduate Medical Education

There are multiple compelling reasons for the Charles Drew University to aspire to a leadership role in graduate medical education (GME), including the following:

- The U.S. is facing a projected shortage of physicians in the coming decades and the magnitude of the shortage is expected to grow as the baby boomer generation ages and begins requiring more health care services. In response to the projected physician shortage, many medical schools are increasing their class size, which creates a larger pool of graduating physicians seeking GME positions.
- The current and projected future shortage of physicians is particularly acute in urban communities that often have unique public health challenges and high proportions of patients without health insurance, such as South Los Angeles.
- Ongoing support of the university's well-established role in the education of medical students, as well as the future development of a four-year medical school at Charles Drew University, requires the existence of a full educational continuum that includes GME. The effective integration of undergraduate and graduate medical education can occur most efficiently if both are operating under the sponsorship and operational oversight of the university.
- The recruitment and retention of excellent clinician-educators as faculty members of Charles Drew University depends in large part upon the university's ability to offer a stimulating and supportive environment for faculty clinical practice. The existence of GME programs is one of the critical elements in building the clinical environment that offers the type of intellectual stimulation and practice interactions that will be attractive to the best teaching physicians.
- There is a significant body of literature that suggests that clinical quality and patient outcomes are better in teaching settings than in non-teaching settings. Therefore, the existence of GME programs will strengthen the university's ability to serve the community and assure quality in clinical services.

For these reasons, and consistent with its mission, the Charles Drew University of Medicine & Science is committed to re-establishing high quality graduate medical education programs as soon as is feasible.

Vision

As a foundation for its GME planning efforts, the Charles Drew University adopted the "guiding principle" that all decisions on the future disposition of its GME programs should be based to the greatest extent possible on supporting the educational best interests of its medical students, residents and fellows. This, in turn, led to the development of the following vision statement:

In partnership with affiliated hospitals and health systems, establish and maintain a robust graduate medical education enterprise of national prominence that supports the university's mission and serves as the foundation for the education of physicians and other health care professionals who share a passion for and commitment to the care of under-served populations and the broader communities in which they reside.

Strategies for Achieving Distinction in GME

Fulfillment of the above vision will require the leadership of the Charles Drew University, as well as its faculty and its community-based clinical partners, to embrace innovation and commit to the highest standards of educational excellence in every aspect of graduate medical education. In seeking to position itself as a national leader in GME, the Charles Drew University intends to develop new GME programs that are made distinctive through the following efforts:

- Design and implementation of an innovative and mission-oriented core curriculum that crosses all university-sponsored GME programs and goes beyond the basics of clinical education by incorporating creative educational content in urban health policy, leadership, cultural competency, critical thinking, and population-based health status, drawing upon and applying principles of public health to the well-being of the community.
- Development and implementation of a rigorous set of tools for assessing and assuring the clinical competence of all participants in university-sponsored GME programs, with particular emphasis on establishing baseline clinical skills assessments at the start of each learner's GME program, creation of individualized learning

- programs for each GME program participant, and creation of ongoing methods for monitoring clinical performance with a goal of continuous improvement and documentation of competence upon completion of training.
- Development and implementation of a set of initiatives aimed at assuring a continuing connection between each university-sponsored GME program and the broader community served by Charles Drew University. Such initiatives could take the form of community-focused projects that utilize the principles of "service learning" to connect medical students, residents and faculty with the community or could also be built around program-specific efforts to address a particular unmet need in the community.

Priorities and Estimated Timeline for New GME Program Development

The new GME program development will be accomplished in phases: Phases I and II will correspond to the required clinical clerkships for medical students. Internal Medicine and General Surgery, Psychiatry, Family Medicine, Obstetrics/Gynecology, and Pediatrics. Phases III and IV will include other specialties and subspecialties in which there is a unique need in the community and in which Charles Drew University can make a significant contribution: Emergency Medicine, as well as selected medical (Cardiovascular Disease, Gastroenterology, Nephrology and preventive Medicine, and Geriatrics) and surgical (Otolaryngology, Orthopaedics, and Ophthalmology) specialties.

When the full residency program development plan has been completed, the university expects to have established up to 16 residency programs with a total of 198 residents in training at any given time.

Master of Science in Clinical Research Program

The goal of the master's degree in Clinical Research is to maintain a program that will train qualified candidates in clinical research with a solid foundation in clinical research methodologies, biostatistics, clinical trials, collaborative science, research conduct, publication practices, grantsmanship, and a unique understanding of the cultural and ethical issues that impact the healthcare of our diverse nation. This program will differ from more traditional approaches to clinical science research training by including a core emphasis on methodologies to address health disparities, and a focus on community-based research, health outcomes research, and interactive training on research ethics in multicultural communities.

Program Overview

In keeping with Charles Drew University's commitment to clinical research development, we are pleased to offer the Master of Science in Clinical Research degree. The clinical research review is designed to help prepare participants with doctoral degrees for careers in clinical research, academic positions, public health positions, and leadership in public government/ private industry as it relates to healthcare. The degree also provides the health professional with an educational foundation necessary for more rapid advancement and expansion of their scholarly activities. The rewards associated with the Master of Science degree in Clinical Research will extend beyond the basics of research and will include the following:

- Statistical reasoning
- Understanding the principles of evidence-based medicine
- Biostatistics for medical and biological research
- Research in vulnerable populations (ethnic minorities, women, the elderly, etc.)
- Methodologies of health disparities
- Clinical trials design and analysis
- Developing science and community skills y Research management
- Ethical, legal, and social issues of responsible clinical research

Fees

Tuition per Unit $300

Program Admission Requirements

- Must be U.S. citizens, non-citizen nationals, or U.S. permanent residents.
- Hold doctoral degrees in medicine, dentistry, nursing, or other clinical disciplines. Ph.D. scientists who are highly committed to clinical investigation will also be considered.
- Personal statement
- Three letters of reference
- Panel interview

Note: Evaluation of applicants will include assessment of college and graduate school transcripts, and documentation of clinical training.

Program Course Curriculum

First Year, Fall Semester

#1000	Clinical Research I	2
#1001	Ethical, Legal, and Social Issues of Clinical Research and IRB	1
#1002	Biostatistics I	2
#1003	Masters Seminar	1
	Semester Units	6

First Year, Spring Semester

#1004	Clinical Trials	2
#1005	Clinical Epidemiology I	2
#1006	Masters Seminar	1
	Semester Units	5

First Year, Summer Semester

#1007	Outcomes Research	2
#1008	Clinical Research II	2
#1009	Biostatistics II	2
	Semester Units	6

Second Year, Fall Semester

#1010	Cost-Effectiveness, Decision, and Meta Analysis	2
#1011	Clinical Epidemiology II	2
#1012	Clinical Research III	2
	Semester Units	6

Second Year, Spring Semester

#1013	Scientific Writing	2
#1014	Biostatistics III	2
#1015	Masters Seminar	1
	Semester Units	5

Second Year, Summer Semester

#1016	Molecular Methods in Clinical Research	2
#1017	Community Research Survey Methods and Analysis	2
#1018	Masters Seminar	1
	Semester Units	5

Note: *A Master's Thesis is required (5-7 units). In addition, a three unit elective course must be taken at any of the UCLA partnering programs in the second year.*

PROGRAM COURSE DESCRIPTIONS

Course #1000 - Clinical Research I (Epidemiologic Methods in Clinical Research)
The first course provides an overview of the clinical research curriculum program, insights into the opportunities for research scholars, and suggestions on getting started in clinical research among minorities and underserved populations. All clinical research, regardless classified as patient-oriented, translational, epidemiologic, behavioral, outcomes, or health services research has individual human beings or groups of human beings as its unit of observation. As such, principles of epidemiology serve as the basic scientific methodology of clinical research.
Units: 2

Course #1001 - Ethical, Legal, and Social Issues of Clinical Research and IRB
This course introduces the fundamental ethical principles of autonomy, beneficence, nonmaleficence, and justice and applies these principles to clinical research involving human subjects in minorities and underserved populations. The use of unproven therapies, the use of placebos, the consent process, institutional review board submission and review processes, conflict of interests, and the costs of clinical research are covered. Study and practice concepts inherent to the ethical and responsible conduct of clinical research will be covered. Cultural influence issues will also be covered. A combination of lectures and small group discussions of assigned readings and case studies will be used. The clinical research scholars will explore the burgeoning literature on the ethics of clinical research and human experimentation. The course will also cover the IRB process.
Units: 1

Course #1002 - Biostatistics I
(Biostatistics for Clinical Research)
This course begins with an overview of descriptive statistics and provides clinical research scholars with the tools to perform univariate analyses using parametric and non-parametric methods for paired and unpaired designs. Emphasis is placed on choosing appropriate tests, evaluating assumptions for the tests, understanding the limitations of statistical tests, and appropriate interpretation of test results. Survival analysis and multiple regression techniques are introduced to familiarize the clinical research scholar with the availability and limitations of these tests. Statistical issues of special pertinence for clinical research in minority and underserved populations are addressed.
Units: 2

Course #1003 - Master's Seminar
(Clinical Research Colloquium)
This colloquium course will explore the practical issues of clinical research in a seminar setting. Guest speakers who are all experts in their respective subjects will cover the subjects.
Units: 1

Course #1004 - Clinical Trials
(Clinical Trial Design and Analysis)
The goals of the course are to survey the theory and practice of clinical trials, to review design and conduct of clinical research, and to enable participants to conceive, plan, propose, and develop effective clinical trials among the minority, underserved populations. Content essential to the design and conduct of clinical trials will be covered including the compo-nents of phase I-IV studies, the design and writing of study protocols, issues regarding patient recruitment and selection, human subjects, the informed consent process and regulatory issues, and managing ongoing clinical trials.
Units: 2

Course #1005 - Clinical Epidemiology I
This course will provide instruction in the characterization and design of measurements commonly used in clinical medicine. The course will cover the research implications of evidence-based clinical medicine including specifications of diagnostic tests, screening tests, and prognostic tests.
Units: 2

Course #1006 - Master's Seminar
(Clinical Research Colloquium)
This colloquium course will explore the practical issues of clinical research in a seminar setting. Guest speakers who are all experts in their respective subjects will cover the subjects. Topics will include: Research Administration and Clinical Research

- Funding (industry, foundations, NIH, other government agencies)
- General Clinical Trials Laboratory data supporting clinical trial
- The human genome project

Units: 1

Course #1007 - Outcomes Research
(Addressing Clinical Issues through Large Dataset Analysis)
This class will help scholars learn to identify the types of questions that can be addressed with large survey, administrative, and clinical databases; risk adjustment; gaining access to these databases; determining validity of information; dataset linkages and management; and building registries. Examples of large datasets compiled at the federal, state, and local levels are, respectively, the Medical Expenditure Panel Survey, the California Health Interview Survey, and the Los Angeles Health Survey.
Units: 2

Course #1008 - Clinical Research II
(Data Management for Clinical Research)
In developing a clinical research study, the clinical research scholar chooses a study design; defines the study population, the predictor variables, and the outcome variables; plans the measurement of these variables and anticipates problems with the measurements; and outlines the analysis and estimating sample size. Inevitably, baseline data on the individuals in the study population and measurements of the predictor and outcome variables will reside in a computer database. Often the amount of actual study information is small compared to the amount of administrative information, such as patient contact information, exam schedules, reimbursement records, etc. The DBMS may store this administrative information, and it is used to update, check, and correct the data. It will also be used either to analyze the study data or to format the data for export to a statistical analysis package. Just as the clinical research scholar must plan (and budget for) statistical analysis, s/he should also plan (and budget for) data management. This class focuses on collecting, manipulating, and analyzing clinical research data. This course will be one of the LRC interactive classes.
Units: 2

Course #1009 Biostatistics II
(Applied Multivariate Analysis in Clinical Research)
The purpose of this class is to aid clinical research scholars in developing analytic skills necessary to model data collected from experimental and observational studies in order to assess the role of multiple risk factors in association with disease outcome events. The goal is to provide a foundation for understanding the multivariable nature of health events in human populations. The course will provide a multivariable approach to experimental studies.
Units: 2

Course #1010 - Cost-Effectiveness, Decision, and Meta Analysis
This course provides an overview of the fundamental quantitative approaches to decision-making in medicine and health policy analysis. The clinical research scholars will be exposed to the fundamentals of decision theory and related quantitative methods that form the basis of these analytic approaches. Cost-effectiveness and cost-utility analysis will be covered extensively, with a strong emphasis on applications.
Units: 2

Course #1011 - Clinical Epidemiology II
(Applied Clinical Epidemiology)
The course is designed to provide a more advanced understanding of epidemiological concepts applied to clinical research, emphasizing diagnosis, prognosis, treatment, the measurement of signs and symptoms of health and disease, and the evaluation of diagnostic, treatment, and compliance-improving maneuvers. The course is also designed to instruct physicians and non-physicians in methods to evaluate the effective-ness of interventions in the primary and secondary prevention and management of disease and to make practice recommendations.
Units: 2

Course #1012 - Clinical Research III
(Clinical Research Strategies in Special Populations or Diverse Communities)
This course covers clinical research strategies in special populations or diverse communities: race/ ethnicity, culture, social; clinical research and health disparities; and issues in recruiting minorities in surveys. Instruction will be provided in the mean-ing of race, ethnicity, social class, and culture. The course will look at how these constructs affect clinical research in addressing health disparities; how to adapt self-reported measures and research methods for use with diverse ethnic groups; how to use qualitative methods in developing and pre-testing quantitative survey instruments; and how to approach research with diverse communities.
Units: 2

Course #1013 - Scientific Writing
(Proposal Writing and Publication Development for Clinical Research)
The purpose of this class is to gain experience in the types of scientific writing required for preparation of applications for scientific grants, contracts, and for presentation and defense of clinical research and other scientific communications. This interactive workshop will walk participants through every com-ponent of an NIH grant proposal, step by step, with information on writing style, importance of testable hypotheses, and an overview of peer review at NIH.
Units: 2

Course #1014 - Biostatistics III
(Applied Biostatistics Analysis of Clinical Trials)
This course in statistics will cover multi-predictor methods, including exploratory data analysis, multiple regressions (linear and logistic), survival analysis, and repeated measures analysis. Emphasis is the prac-tical and proper use of statistical methodology and its interpretation.
Units: 2

Course #1015 - Master's Seminar
(Clinical Research Colloquium)
This seminar series includes "Works-in-Progress" presentations by the clinical research scholars. They will include hypothesis development, study design, study conduct, data analysis and interpretation, presentation, and grant writing. These presentations are followed by related methodological, statistical, and practical discussions.
Unit: 1

Course #1016 - Molecular Methods in Clinical Research (Molecular Biology and Genetics in Clinical Research)
This course provides instruction in conceptual understanding of basic techniques in molecular biology (e.g. PCR, DNA sequencing, and gene expression profiling); biomarkers; the Human Genome Project; genetic epidemiology; pharmacogenetics; and the acquisition and storage of biological samples.
This course will also cover laboratory experiments demonstrating basic and advanced molecular biological methods applied to molecular genetics. Methods include RNA and DNA purification, recombinant DNA methods, gel electrophoresis, PCR, immunoblots, and bioinformatic analysis.
Units: 2

Course #1017 - Community Research Survey Methods and Analysis (Methods and Analysis for Survey Data and Application)
The purpose of this class is to gain experience in the types, methods, and designs of community surveys. The course will feature also the rapid community-based survey methodology. The clinical research scholars will learn how to develop a community survey—choose a design, and define the study population, the predictor variables, and the outcome variables; then plan the measurement of these variables and anticipate problems with the measurements; and outline the analysis and estimate sample size.
Units: 2

Course #1018 - Master's Seminar (Clinical Research Colloquim)
In this course, each n clinical research scholar prepares, presents, and defends a clinical research protocol in his/her field of interest. Clinical research scholars are encouraged to critique the proposals presented by other clinical research scholars and to participate as a group in problem solving.
Units: 1

COLLEGE OF MEDICINE FACULTY

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Department of Emergency Medicine
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Moustafa, Moustafa H., MD, FACEP, Assistant Professor
Shneiderman, Amiram, MD, PhD, FACEP, Assistant Professor
Williams, Joanne, MD, Associate Professor

Department of Family Medicine
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Swerdloff, Lauren, MD, Assistant Professor
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Surprenant, Edgar, MD, Associate Professor*

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Mendez-Luck, Carolyn A., PhD, Associate Professor
Ogunyemi, Omolola, PhD, Associate Professor
Pan, Deyu, MS, Instructor

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Meade, Peter C., MD, Assistant Professor
Myint, Simon, MD, Assistant Professor
Ocampo, Hermenegildo, MD, Assistant Professor
Velayos, Eduardo, MD, Assistant Professor
Yamaguchi, Miles, MD, Assistant Professor

Note: Faculty rank as of March 1, 2008. Please contact College of Medicine, Faculty Affairs in writing for any additions, corrections or revisions.

*** Denotes faculty with UCLA appointment.**

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(323) 563-5851

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Office of Medical Student Affairs
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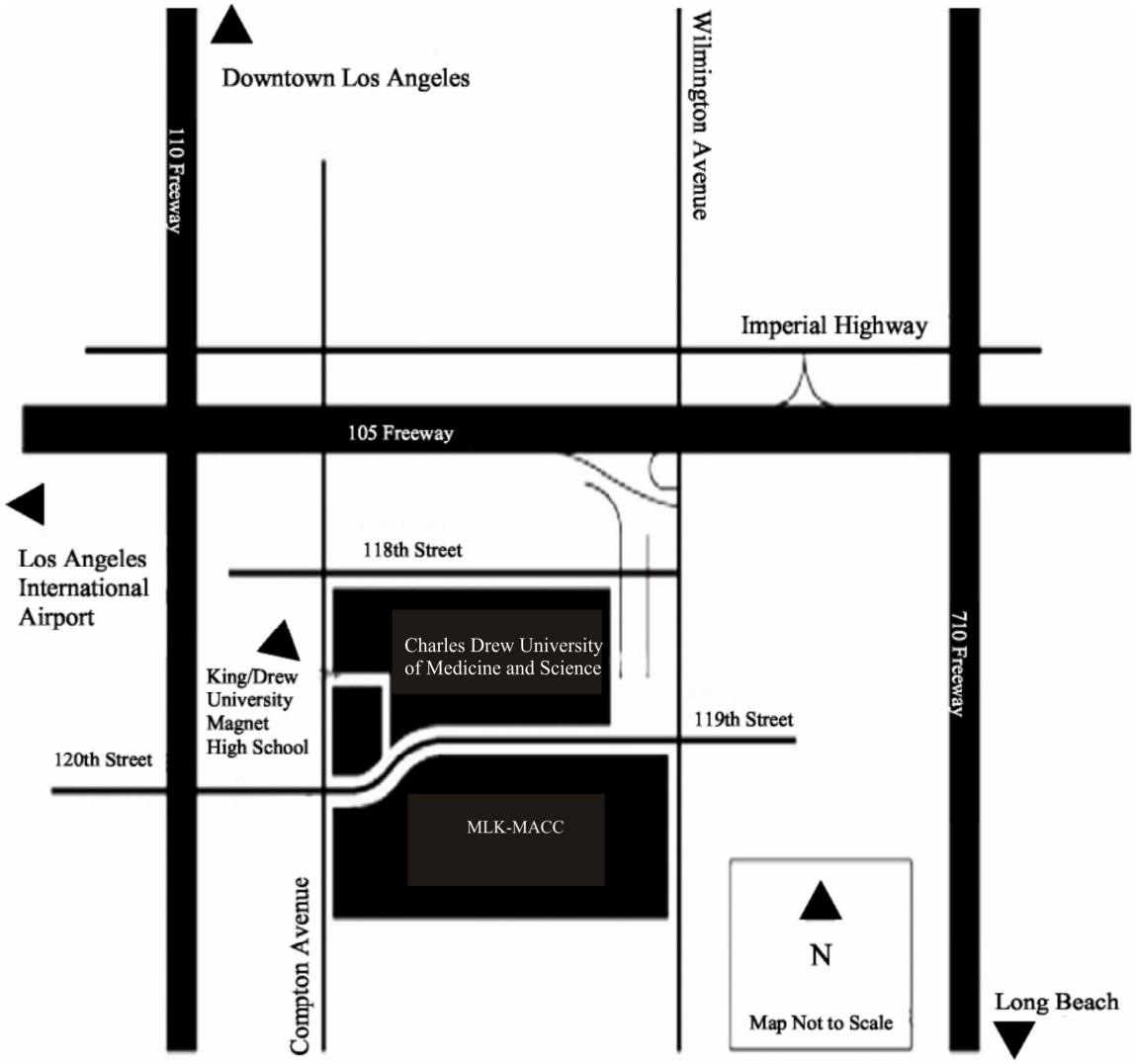
CAMPUS MAP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Airport
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of Medicine and Science
King/Drew
University
Magnet
High School
119th Street
120th Street
710 Freeway
MLK-MACC
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N
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