

colorado school of
public health

UNIVERSITY OF COLORADO
COLORADO STATE UNIVERSITY
UNIVERSITY OF NORTHERN COLORADO

Graduate Programs in Epidemiology

2019-2020

Student and Advisor Handbook

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Message from the Associate Dean for Academic Affairs



Welcome to the Colorado School of Public Health!

This is an extraordinary time to be working on community and population health. There is a rejuvenated realization that many of the determinants of health lie not in medical care, but in our social and physical communities, the exposures we receive from the environment, the health care systems that we have access to, and the choices we make in our daily behaviors.

We are a collaborative school of public health, with a strong partnership between three major public universities, and also with our ties to and belief in the importance of communities using scientific evidence to develop their own priorities and strategies for achieving health.

As you embark on your studies, I encourage you to reach out to faculty for mentorship. There are vast opportunities for you to be involved in education, research and practice. I encourage you to get involved beyond the classroom. It is our vision that together we will learn and work to allow all members of our communities reach their highest potential for healthy, productive lives.

As the Associate Dean for Academic Affairs, I encourage you to explore all of the opportunities that the Colorado School of Public Health has to offer.

Sincerely,

A handwritten signature in black ink that reads "Lori A. Crane".

Lori A. Crane, PhD, MPH
Associate Dean for Academic Affairs

Message from the Directors of the Graduate Program in Epidemiology

Welcome to the Epidemiology Department!

We are an enthusiastic group of colleagues working together to improve population health through discovery, education and community engagement. Faculty in our department conduct innovative research in diverse areas including infectious disease, etiology and prevention of diabetes in youth and adults, genetic epidemiology, injury prevention, nutrition, environmental health to list a few. Our goal is to train the next generation of leaders in the ever-evolving and essential field of epidemiology. We work with our students to apply their research interests to a variety of health problems in Colorado and across the world. We are a tight-knit department with high levels of student engagement. Our students not only receive training to guide a dynamic career, but also establish friendships and collegial relationships that last a lifetime.

As the co-directors of the Epidemiology MS and PhD programs, we sincerely welcome you to the Colorado School of Public Health.

Sincerely,

Tessa Crume and John Hokanson



Policy Regarding Changes to the Handbook

This handbook complements the policies and procedures of the Graduate School. It includes information specific to the Colorado School of Public Health and the Epidemiology Graduate Programs. Please retain it for reference on academic policies, thesis, graduation, and other topics. This handbook was accurate and up to date when printed in July 2019. It does not constitute a contract with the University of Colorado Denver, either expressed or implied. The Graduate School and the Epidemiology Graduate Programs reserve the right at any time to change, delete, or add to any of the provisions at their discretion. Furthermore, the provisions of this document are designed to serve as firm guidelines rather than absolute rules, and exceptions may be made on the basis of extenuating circumstances.

Websites

School Site:

<http://publichealth.ucdenver.edu>

Program Site:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/departments/Epidemiology/Pages/welcome.aspx>

Academic and Student Affairs Resources:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/Pages/index.aspx>

Graduate School Policies and Resources:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/Pages/default.aspx>

Colorado School of Public Health

Overview

The Colorado School of Public Health is a collaborative school of public health with the University of Colorado, Colorado State University, and the University of Northern Colorado. It is the first school of public health in a nine-state region of the Rocky Mountain West.

Emerging infectious diseases, chronic diseases, emergencies, lifestyles, the environment, disparities and various other factors impact the health of our communities. The Colorado School of Public Health aims to meet the challenges that our communities face by preparing a public health work force with the skills, research, knowledge, and values necessary to advance the health of our communities. The combined faculty, located at the three partner institutions, is at the forefront of various health issues and research, proactively addressing and improving the lives of our children, adults and aging populations.

As part of the commitment to meeting the training and research needs of the public health workforce, the Colorado School of Public Health offers educational programs that include masters, doctoral, residency, and certificate programs. Descriptions and materials are available through the Colorado School of Public Health website.

Mission Statement

The mission of the Colorado School of Public Health is to promote the physical, mental, social and environmental health of people and communities in the Rocky Mountain Region and globally. The mission will be accomplished through collaborations in education, population-based research, and community service that bring together institutions, agencies, and diverse populations.

Vision Statement

The Colorado School of Public Health, a collaborative, multi-disciplinary, multi-institutional, learning, research and service environment, will inspire academicians, practitioners and students of public health to work collaboratively to assure that all people and communities are healthy and their environment sustainable.

Diversity Statement

The Inclusion, Diversity and Health Equity mission of the Colorado School of Public Health is to build a diverse and representative academic community, which recognizes the importance of social and economic justice in relation to health. The Colorado School of Public Health will work to build an inclusive, culturally competent institution, which includes the environment, policies and procedures, faculty, staff, leadership and student body.

Accreditation

The Colorado School of Public Health received school-wide re-accreditation in June 2016 from the Council on Education for Public Health (CEPH). CEPH is an independent agency recognized by the U.S. Department of Education to accredit schools of public health and public health programs outside of schools of public health. As an accredited school of public health, graduates at the masters and doctoral levels are eligible to sit for the Public Health Certification examination.

Administration

University Leadership & Academic Partners

Donald M. Elliman Jr.
Chancellor, University of Colorado Denver & Anschutz
Medical Campuses

Andrew Feinstein, PhD
President, University of Northern Colorado

Joyce McConnell, JD
President, Colorado State University

Colorado School of Public Health Leadership

Jonathan Samet, MD, MS
Dean

Cathy Bradley, PhD
Associate Dean for Research

Lori A. Crane, PhD, MPH
Associate Dean for Academic Affairs

Danielle Brittain, PhD
Director, University of Northern Colorado

Carolyn DiGuseppi, MD, PhD, MPH
Associate Dean for Faculty Affairs

Tracy Nelson-Ceschin, PhD, MPH
Director, Colorado State University

Mary Dinger, PhD
Associate Dean for Admissions and Student Affairs

Christine Gillen, MS
Associate Dean for Finance and Administration

Department Chairs

John Adgate, PhD, MSPH
Chair, Environmental and Occupational Health

Jill Norris, PhD, MPH
Chair, Epidemiology

Carol Kaufman, PhD
Chair, Community and Behavioral Health

Glen Mays, PhD
Chair, Health Systems, Management & Policy

Debashis Ghosh, PhD
Chair, Biostatistics and Informatics

Anschutz Medical Campus

Chloe Bennion, MPH
Program Evaluation Coordinator

Gwen Marshall, MA
State Engagement Professional

Katie Brumfield, MA
Career Services & Practicum Specialist

Brenda Witt
Academic Affairs Specialist

Tonya Ewers
Director of Communications & Alumni Relations

Elizabeth Wyatt
Executive Assistant to the Dean

Amy Hebbert
Student Affairs Specialist

Kevin Young, MBA
Director of Human Resources

Magdalena Kucharski, MA
Student Affairs Specialist

Heidi O'Mara, MPH
Practicum Coordinator and Student Affairs Professional

Graduate School

David Engelke, PhD Dean	Teresa Bauer-Soji Admissions & Student Progress Coordinator
Inge Wefes, PhD Associate Dean	Shawna McMahon Assistant Dean
Jim Finster, MPA Director, Academic and IT Operations	Patricia Goggans Events Coordinator

Frequently Used Phone Numbers

Name:	Phone Number	Room
ColoradoSPH Office of Student Affairs	303-724-4613	Bldg 500, Rm E3360
Tessa Crume, Program Director	303-724-4452	Bldg 500, Rm W3137
John Hokanson, Program Director	303-724-4424	Bldg 500, Rm W3139
Campus Office:	Phone Number	Room
Bookstore	303-724-2665	Ed2 S, 1 st Fl
Bursar's Office	303-556-2710	Ed2 N, 3rd Fl
Campus Information	303-724-6245	
CU Online Help Desk (Canvas)	303-315-3700	
Disability Resources and Services	303-724-5640	Bldg 500, Rm W110
Health Sciences Library	303-724-2152	12950 E. Montview Blvd.
Financial Aid Office	303-724-8039	Ed2 N, 3rd Fl
Graduate School	303-724-2915	AO1, Rm 2609A
Ombuds (Counseling Services/Conflict Resolution)	303-724-2950	Bldg 500, Rm C7005
Parking	303-724-2555	Bldg 500, 1st Fl West
Payroll	303-735-6500	Boulder Campus
Registrar	303-724-8059	Ed2 N, 3rd Fl
Student Assistance Office	303-724-7686	Ed2 N, 3rd Fl

General Information

Computer Labs

Research and study opportunities are enhanced through the various resources available to students, including: student computing labs (Ed1 CTL P26-1501, Ed2 N CTL P28-2201 & RC1 N CTL P18-1309) and student rooms in the Education 1, Education 2, and the Research 1 North Buildings.

Student Mail Boxes

Student mailboxes are used to send important information to students and should be checked on a regular basis. The EPI student mailboxes are located on the 3rd Floor of Bldg. 500 to the left of the main elevators.

Scheduling Rooms for Meetings or Defense

To schedule the conference rooms (Ward Darley, Teleconference Room, or Dean's Conference Room) on the 3rd Floor of Building 500 or another room at the Anschutz Medical Campus for a committee meeting or defense, please contact (303) 724-4442.

Preventive Medicine Grand Rounds, Department of Epidemiology Seminar Series and Epidemiology Discussion Group

The monthly Preventive Medicine Grand Rounds is the first Monday of every month except for September and January. In September, Grand Rounds is the 2nd Monday of the month. Grand Rounds are not held in January.

The dates for the Epidemiology Discussion Group are to be determined, but will feature students, faculty, and/or outside speakers. Announcements will be sent with the date, topic, and location of the seminars. The link for the schedules is:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/About/activitiesandevents/Pages/GrandRounds.aspx>

Epidemiology Discussion Group is mandatory. All students are encouraged to attend the Preventive Medicine Grand Rounds and Department of Epidemiology Seminar Series.

Academic Policies

Family Educational Rights and Privacy (FERPA)

Purpose of FERPA

FERPA deals specifically with the education records of students, affording them certain rights with respect to those records. For purposes of definition, education records are those records, which are:

1. Directly related to a student and,
2. Maintained by an institution or a party acting for the institution.

FERPA gives students who reach the age of 18 or who attend a post-secondary institution the right to inspect and review their own education records. Furthermore, the right to request amendment of records and to have some control over the disclosure of personally identifiable information from these records, shift from the parent to the students at this time.

FERPA applies to the education records of persons who are or have been in attendance in post-secondary institutions, including students in cooperative and correspondence study programs, video conference, satellite, internet or other electronic forms. FERPA does not apply to records of applicants for admission who are denied acceptance or, if accepted, do not attend an institution.

Directory Information

FERPA directory information is information contained in your education record that generally would not be considered harmful or an invasion of privacy if disclosed. Under current CU Denver policy, the following information is designated as directory information:

1. name
2. address, telephone number, and email address
3. dates of attendance
4. registration status
5. class
6. major
7. awards
8. honors
9. degrees conferred
10. photos

Although these items are designated by CU Denver as directory information, only a limited amount of this information is routinely disclosed by CU Denver officials and the University retains the discretion to refuse to disclose directory information if it believes such disclosure would be an infringement of your privacy rights.

Nondisclosure of Directory Information

Students may ask the university not to publicly disclose directory information. Please note, however, that if you are seeking employment, the Registrar's Office cannot release your enrollment, degree status or major to anyone unless you come to the Registrar's Office with a photo ID.

Forms to prevent disclosure of directory information can be obtained at The Anschutz Medical Campus Registrar's Office or via the Registrar's website at <http://www.ucdenver.edu/student-services/resources/registrar/Pages/default.aspx>. Questions regarding your rights under FERPA should be directed to the Registrar's Office:

Anschutz Medical Campus:
Phone: 303-724-8059
Fax: 303-724-8060
Email: student.services@ucdenver.edu

For additional information regarding FERPA, please visit the complete policy on the Registrar's website at:

<http://www.ucdenver.edu/anschutz/studentresources/Registrar/StudentServices/FERPA/Pages/default.aspx>

Immunization Policy

To ensure that a minimum standard of public health and safety is provided for our faculty and students, all students matriculating into any ColoradoSPH program are required to provide proof of immunizations for measles, mumps, rubella, and tuberculosis using the required forms. The Graduate School Office should receive proof of immunizations at least two weeks prior to the start of a student's first term in the program. Students who do not return the immunization form at the specified time may experience a hold on future registration and/or be administratively withdrawn from classes until proof of immunizations has been received.

Health Insurance Requirement

Full-time graduate students (defined as five credit hours per semester) are required to have a University student health insurance plan, unless proof of comparable coverage can be verified. Students are required to have insurance at their home campus only. If a student wishes to waive the insurance requirement due to comparable personal coverage, they may do so by petitioning the student health office at their home campus. Students in part-time status may also be eligible to purchase a student health insurance plan. Please check with the student health office on your home campus for more information.

Background Check Policy

Students matriculating into any ColoradoSPH degree-seeking program are required to pass a criminal background investigation. The background check is conducted during the admissions process. Students are required to pay a non-refundable processing fee for conducting the background check. Students who work at the university also need to submit the processing fee and complete the student background check, as additional criteria are specified beyond that required for employment. This must be completed before course registration can begin.

Student Academic Honor and Conduct Code

Education at the Colorado School of Public Health (ColoradoSPH) is conducted under the honor system. **Matriculation at the Colorado School of Public Health implies the acceptance of, and adherence to, the Student Academic Honor and Conduct Code.** All students who have entered

graduate and health professional programs should have developed the qualities of honesty and integrity, and each student should apply these principles to his or her academic and subsequent professional career. All students are expected also to have achieved a level of maturity reflected by appropriate conduct at all times. The Honor and Conduct Code of UC Denver, and the Academic Appeals Process of the Graduate School also govern epidemiology Graduate students. Please see the Graduate School policies here:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

Although it is not possible to list every situation that violates the Student Academic Honor and Conduct Code, the following examples provide a frame of reference:

1. Academic Honesty

Students should adhere to the highest standards of academic honesty and integrity. Examples of behavior that violates these standards include: plagiarism (including the undocumented use of internet and web-based information), cheating, illegitimate possession and/or use of examinations, violation of the ethical standards for conducting research, and falsification of official records.

2. Professional Conduct

As future health professionals, students should also adhere to the highest standards of professionalism. Examples of unprofessional conduct include misrepresentation of effort, credentials, or achievement in either the academic or professional setting; any action that compromises the quality or safety of patients or study subjects; violation of patient or study subject confidentiality; IRB violations; and any other conduct unbecoming a professional public health practitioner, researcher, or educator.

3. Alcohol and Drug Use

Alcohol and/or drug abuse compromises the student's ability to learn and to practice as a public health professional and thus is considered unprofessional conduct. Students who have a problem with alcohol and/or drugs should seek assistance from services available on campus or elsewhere. The sale of drugs or the possession of narcotics is against the law. To minimize the potential for alcohol abuse at campus functions, students must adhere to current University policy governing the consumption of alcohol on campus. Please note that the new marijuana laws in Colorado do not change existing University of Colorado campus policies that prohibit the possession, use or distribution of marijuana by students, employees and all visitors on university property. For further information, please refer to this website:

http://catalog.ucdenver.edu/content.php?catoid=1&navoid=24#Drugs_and_Alcohol

4. Respect for the Rights and Property of Others

Students should always conduct themselves in a manner that recognizes the rights and property of others. Examples of inappropriate behavior include: theft, damages to University or personal property of others, disruption of educational or other activities on campus, illegal use of University facilities, sexual harassment, physical assault, and any conduct that threatens the health or safety of others.

Any student found to have committed acts of misconduct (including, but not limited to cheating, plagiarism, misconduct of research, breach of confidentiality, or illegal or unlawful acts) will be subject to the procedures outlined in the Honor Code.

Additional information regarding the ColoradoSPH Honor Code can be found online at:

http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Documents/PoliciesHandbooks/CSPH_Honor_Code.pdf

Academic Grievance Policy

The Colorado School of Public Health recognizes that a student may have grievances about different aspects of his or her academic program. ColoradoSPH is committed to addressing these grievances promptly and professionally and reaching a fair resolution through a formal and unbiased process. In the statements below, Associate Dean refers to the ColoradoSPH Associate Dean for Academic Affairs.

Student Rights

All ColoradoSPH students have the right to:

1. Competent instruction
2. Access to instructors outside of class during a specified set of office hours or by appointment
3. Clearly understand the grading system by which he or she will be judged, and expect that the grading system as determined by the instructor will be adhered to for the duration of the course
4. Be treated with respect and equality
5. Be treated fairly according to standards stated within the student handbook and each course syllabus

Formal Grievance Process

Step 1

Because the filing of an Academic Grievance is considered a serious matter, the student is strongly encouraged to seek informal resolution first by discussing the matter with the faculty member or administrator involved. The student and faculty/administrator should document the date, time, and outcome of the meeting for future reference. If the student feels he or she needs assistance in discussing or resolving the issue, a University of Colorado Denver Ombuds person is available to help students facilitate a resolution related to any type of grievance. That office can be reached at 303.724.2950. Additional information about the Ombuds Office can be found on their website:

<http://www.ucdenver.edu/about/departments/OmbudsOffice/Pages/OmbudsOffice.aspx>.

Step 2

The student should contact the Chair of the Department to which the faculty member belongs. The Chair and the student will work together to resolve the grievance informally. At their election, the Associate Dean may be asked to facilitate these conversations. The student might seek guidance from the Associate Dean in this step. The Associate Dean will act as a mediator between the student and faculty member to help resolve any miscommunications between the parties.

Step 3

If an informal resolution cannot be reached, the Associate Dean will meet with the student to determine if the grievance is one that can be legitimately pursued through the official grievance process.

Step 4

If the Associate Dean and the student agree to move forward, the Hearing Committee must be constituted within 30 days of indication from the student or the chair that the grievance cannot be resolved at the department level.

Step 5

A report will be prepared by the Associate Dean to include a personal statement from the individual filing the grievance or appeal outlining the grievance or appeal, the date(s) of the alleged incident, and all supporting documentation and evidence. This report will be sent to the faculty member with whom the grievance has occurred.

Step 6

Hearing Committee members shall be contacted to schedule a hearing. All committee members shall commit to being present on the agreed date and time.

Step 7

One week in advance of the hearing, all Hearing Committee members will be informed in writing of the hearing committee composition, the Associate Dean's written report, any other evidence and testimony to be presented, and the resolutions each party believes to be acceptable.

Step 8

On the date of the hearing, the Hearing Committee will privately and separately interview each party. At that time, any additional information, documentation and testimony regarding the grievance can be introduced. All testimony will be audio recorded for accuracy. The recording will be destroyed at resolution of the grievance.

The Associate Dean, or his/her designee, shall be present at the hearing. The Associate Dean will not have voting power, but will oversee the hearing to ensure procedures are followed, proceedings are conducted with respect for all parties, and that all parties are satisfied that their testimony was presented.

Step 9

All testimony and documentation will be strictly confidential. This confidentiality will be waived only if the grievance hearing results in legal action to the extent that grievance testimony and documentation need to be available to the court. All parties shall be advised that no hearing participant should use any information from the hearing in any way to affect future interactions among the parties.

Step 10

The Hearing Committee will send a formal written recommendation to the Associate Dean of the ColoradoSPH within five (5) working days. The Associate Dean will make a formal recommendation to the Dean based on all of the evidence and testimony within five (5) working days of receipt of the Hearing Committee's recommendation.

Step 11

All parties will consider the Dean's decision final and binding.

Step 12

Upon acceptance of the formal decision by the Dean, the Associate Dean will be notified and will inform all relevant parties of the decision. It is the intent of the Colorado School of Public Health that all individuals associated with the ColoradoSPH have the right to bring grievances to the appropriate School officials and that they be granted full opportunity to be heard, treated with respect, and due process as they seek redress of their grievances. The full Academic Grievance policy can be found online at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Documents/PoliciesHandbooks/GrievancePolicies.pdf>

Non-Discrimination Policy Statement

The University of Colorado, including the Colorado School of Public Health, will not discriminate against any applicant, student or employee because of race, color, religion, sex, national origin, age, disability, creed, sexual orientation, or veteran status. The University of Colorado and the Colorado School of Public Health will take affirmative action to ensure that applicants, students and employees are treated without regard to their race, color, religion, sex, national origin, age, disability, creed, sexual orientation, or veteran status. The University of Colorado Non-Discrimination Policy can be found at:

<https://www.cu.edu/regents/Policies/Policy10A.htm>

Sexual Misconduct Policy Statement

It is the policy of ColoradoSPH to maintain the community as a place of work, study, and residence free of sexual harassment or exploitation of students, faculty, staff or administrators. All forms of sexual misconduct, including sexual harassment, are prohibited on campus and in any of the School's programs. ColoradoSPH is committed to taking appropriate action against any member of the University community who violates the policy. No retaliation will be taken against any individual for making a legitimate complaint. It is a violation of the ColoradoSPH policy to knowingly make a false accusation. For more information, please refer to the Title IX overview:

equity.ucdenver.edu

Policy on Pregnancy and Parenting

The Colorado School of Public Health does not discriminate against any student on the basis of pregnancy, parenting status, or related conditions. Absences due to medical conditions relating to pregnancy will be excused for as long as deemed medically necessary by the student's doctor and the student will be given the opportunity, wherever possible, to make up missed work. Students needing assistance can seek accommodations from the Disability Services Offices (Sherry Holden, sherry.holden@ucdenver.edu) or the Title IX Coordinator for ColoradoSPH (Mary Dinger, Mary.Dinger@cuanschutz.edu).

Email Policy

Email is an official means of communication for ColoradoSPH students. All official email related to enrollment at ColoradoSPH (including, but not limited to, financial aid, billing, transcripts, school announcements.) will be sent to each student's assigned CU email address (name@cunschutz.edu), regardless of the student's home campus. Students are responsible for checking their CU email on a

regular basis. The student Academic Honor and Conduct Code should be followed when using university email and other forms of university electronic communication and devices.

Students with a home campus of CSU or UNC should also frequently check their home campus email accounts, as any correspondence specifically from their home campus will be sent to that email address.

For questions regarding your CU email account, please contact the Anschutz Medical campus OIT Department at (303) 724-HELP or visit their website at:

<https://4help.oit.ucdenver.edu/CherwellPortal/IT#o>

Identification/Access Badges

Students are required to have an electronic security photo ID badge for the safety and protection of all faculty, staff, and students on campus. Additionally, this badge allows students access to buildings and computer labs after hours, as well as parking surfaces.

Badge applications for the CU Anschutz Medical Campus are issued to the ID Badge Office by the education staff prior to the start of a student's first semester in the program. Students should schedule an appointment to pick up their Anschutz Medical Campus ID Badge by calling 303-724-0399. The ID Badge Office is located in Building 500 on the first floor, next to the food court.

Students with a home campus of CSU or UNC should contact their campus education staff to inquire about ID badges on those campuses.

Establishing Residency

The requirements for establishing residency for tuition purposes are defined by Colorado law. The statutes require that a qualified individual must be domiciled in Colorado for the twelve (12) consecutive months immediately preceding the term for which resident status is claimed.

A person's tuition classification status is initially determined from the Verification of Residency form submitted during the application process for admission. If a person is classified as a "nonresident," he or she must wait until eligible for a change in tuition classification and then file a petition for the change. Petitions that are denied may be appealed.

For more information regarding establishing residency, please visit:

CU Anschutz Medical Campus Registrar's website:

<http://www.ucdenver.edu/anschutz/studentresources/Registrar/Pages/Registrar.aspx>

Tuition and Fees

ColoradoSPH students receive a single bill for tuition and fees from the CU Anschutz Medical Campus Bursar's Office, regardless of their home campus affiliation. All students are charged the university matriculation fee, background check fee, and enrollment deposit (if applicable). Fees associated with the student's primary campus are also assessed. There are not additional general fees for taking courses outside of the primary campus, but course-specific fees may still apply. All students, regardless

of their home campus, must follow university payment policies and deadlines. Additional information regarding fee and billing policies can be found on the bursar's website at:

<http://www.ucdenver.edu/anschutz/studentresources/StudentBilling/Pages/default.aspx>

A breakdown of tuition and fees per campus can be found on the ColoradoSPH website:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/admissionsandaid/Pages/CostofAttendance.aspx>

Students must follow the published drop/add deadlines in order to receive a tuition refund for any dropped courses. For dropped courses processed before the semester's drop/add deadline, full tuition and fees will be refunded. ***Courses dropped after the semester's drop/add deadline will be considered withdrawals, and will not be refunded tuition and fees.*** For more information on dropping or withdrawing from a course, see "Registration Policies" on page 18.

Appeals for tuition refunds after the drop/add deadline will follow the policy outlined on the Tuition Appeals Form on the ColoradoSPH website:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/Forms.aspx>

The Academic Calendar, which specifies deadlines, including the drop/add deadline, can be found on the ColoradoSPH website:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/CoursesRegistration.aspx>

For students who have been approved to take a course(s) at the downtown UCD campus, the ColoradoSPH tuition rate will be charged for those courses, unless the student is enrolled in a dual degree program with the downtown campus. The ColoradoSPH tuition rate may be different than the downtown UCD campus rate.

Employee Tuition Benefit

Employees of the University of Colorado and their dependents may be eligible for up to nine credit hours per year to be used towards courses on a space-available basis. When using the tuition benefit, registration can only occur on the first day of classes in order for tuition to be waived. Students who violate this policy are at risk of losing their tuition benefit. For the entire policy, restrictions and forms, please visit the Payroll and Benefit Services website:

<https://www.cu.edu/pbs/tuition-benefit/>

Employees on the CSU and UNC campuses using their employee tuition benefits may transfer in a maximum of 20 credits of approved public health coursework taken at a ColoradoSPH partner institution during the time of employment. Of these 20, a maximum of 10 non-degree credits are allowed prior to program matriculation.

Please note that CU Denver/ Anschutz Medical Campus waivers may only be applied to courses at CU Denver/Anschutz Medical Campus. ColoradoSPH's CU Denver students cannot use waivers for CSU and UNC courses. (Employees at CSU and UNC have their own system for tuition waivers.)

Financial Aid

All financial aid, regardless of a student's home campus, is processed through the CU Anschutz Medical Campus Financial Aid Office. All ColoradoSPH students interested in applying for financial aid should do so through the CU Anschutz Medical Campus. Detailed information can be found at:

<http://www.ucdenver.edu/academics/CUOnline/TuitionFees/FinancialAid/Pages/FinancialAid.aspx>

For financial aid purposes, full-time status is considered five credits per term; part-time is considered 3 credits per term.

Advisors

The program directors will serve as an advisor to each student upon entry into the program. This is not a permanent assignment. Students may request to change advisors and often do so when putting together their examination committees. The faculty member selected to supervise the thesis, research paper or dissertation automatically becomes the student's academic advisor/mentor as well. Students should meet with their advisor/mentor at least once per semester before starting work on a thesis/dissertation and should keep their advisor/mentor and the program director informed of study plans. Meetings with the advisor/mentor should occur at least weekly once work on the thesis/dissertation begins.

Grading Policy

The program adheres to the Graduate School grading policies as outlined in the Graduate School Handbook. In addition, the program has the following grading policies:

1. All coursework must be completed on time. A student may be assigned an "I" (incomplete) grade, with advance agreement from the instructor, which will convert to an F grade after one year, if the coursework has not been completed.
2. MS Thesis, MS Research Paper, and Dissertation credits are assigned the grade IP until the final written paper is complete. At that time, a letter grade will be assigned retroactively.
3. In order to maintain satisfactory academic progress, advance to candidacy, and earn a graduate degree, students are required to maintain at least a "B" (3.00) average in all course work attempted while enrolled in the Graduate School. Courses in which grades below "B-" (2.7) are received are not accepted for any MS or PhD degree. Students that receive such grades may repeat that course once within 24 months with the approval of the graduate program. All grades received will appear on the student's transcript and will be included in the GPA calculation. If the course is a prerequisite for other courses, the student must obtain special permission from the instructor to enroll in an advanced course in the sequence before retaking the prerequisite.

Leave of Absence Policy

Leaves of absence are arranged with and approved by the program director with the request, then forwarded to the Graduate School for final approval. A leave of absence may be approved for a maximum of one year. Students who fail to register or submit a Statement of Academic Intent after an absence of one academic year will be required to reapply for admission to the Graduate School through their program and be considered with all other applicants. A leave of absence does not extend the time limit set forth for graduation.

Academic Information

Academic Calendar

Please visit the website for the current academic calendar:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Documents/Academic%20Calendar-CSPH-2019-2020.pdf>

ColoradoSPH Course Book

The ColoradoSPH Course Book, which provides descriptions of all approved courses at all three campuses, is available at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/CoursesRegistration.aspx>

Registration

Course offerings, course book, academic calendar and registration dates are available on the website:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/CoursesRegistration.aspx>

All students of the Colorado School of Public Health register for courses through UCD Access. Students must have a CU email address to access the registration system.

<https://portal.prod.cu.edu/UCDAccessFedAuthLogin.html>

Students enrolling for the first time must meet with the program director prior to fall semester for annual academic advising before they can utilize web based registration.

Dropping & Adding a Course

The drop/add period extends two weeks after the first day of the fall and spring semesters and one week after the start of the summer semester. To drop or add a class during the drop/add period, please log onto the registration portal – UCD Access – at:

<https://portal.cusys.edu/UCDAccessFedAuthLogin.html>

Dropping courses after the drop/add deadlines will result in 0% tuition and fee reimbursement and a corresponding grade of "W" (withdrawal) will be reflected on the transcript.

Permission to register or drop a course after the add/drop period will be granted only in extenuating circumstances and requires the approval of the Assistant Dean of the Graduate School.

The drop/add deadlines can be found on the Academic Calendar at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/index.aspx>

Course Withdrawal Policy & Timeframe

If a student wishes to withdraw from the university, he/she should obtain a withdrawal form from the CU Anschutz Medical Campus Registrar's office or website:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/CoursesRegistration.aspx>

Withdrawal from a course is a formal discontinuation of the course after the drop/add period, and results in a grade of "W" on the student's official transcript. If attendance in a current course is discontinued without an official withdrawal, the student's transcript will reflect the grade earned for that course. **Withdrawals from courses are not eligible for tuition reimbursements.**

- 100% reimbursement will be granted if a course is dropped before classes begin or during the drop/add period (see ColoradoSPH Academic Calendar for semester deadlines)
- There will be no reimbursement for withdrawal after the drop/add period and a grade of "W" (withdrawal) will be reflected on the transcript.

Auditing Courses

The CU Anschutz Medical Campus does not allow auditing of courses. Students may register for a course for "No Credit," but must pay the full tuition and fees. Students must designate "No Credit" by the appropriate deadlines as set forth by the Registrar's Office. No Credit forms are available from the CU Anschutz Medical Campus Registrar's Office:

<http://www.ucdenver.edu/student-services/resources/registrar/Pages/default.aspx>

Registering for Courses on Other CU Campuses

ColoradoSPH students are able to register for UC Denver (downtown) campus courses with the UCD Access registration system, given that any prerequisite requirements are met. Registration can only be conducted during the drop/add period at the host (downtown) campus. The ColoradoSPH tuition rate will be assessed for any courses taken downtown, unless the student is enrolled in a dual degree program with the downtown campus. If the student wishes to apply a course taken at UCD downtown toward MPH program requirements, he or she must secure faculty advisor approval **prior** to taking the course. See "Electives outside ColoradoSPH" below.

Students who would like to enroll for a course on the Boulder or Colorado Springs campuses **do not** register on UCD Access. Instead, they must complete the *Inter-campus Registration Form* found on the UCDenver Campus Registrar's Office at:

<http://www.ucdenver.edu/student-services/resources/Registrar-dev/StudentServices/Pages/Forms.aspx>

Approval from both the host and home campuses is required. After all signatures have been obtained, the completed form should be return to the CU Anschutz Medical Campus Registrar's Office for processing. Students must be registered for at least one course on their home campus in order to add a concurrent class on either the Boulder or Colorado Springs campuses.

Incomplete Coursework

In the case that a student cannot complete a course during the regular semester, the student may request an "incomplete" grade in the course, which will enable the student to complete the course during the following semester. Requests should be made using the "Request for a grade of incomplete" form, which can be found on the "Forms" page:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/Forms.aspx>

Students who have been approved for an "incomplete" and need to continue the course should **not** re-register for the course on UCD Access or duplicate tuition will be charged. If an "incomplete" grade has been approved and continued access to online materials (i.e., Canvas) is needed, please contact the Office of Student Affairs. ***Students should not re-register for the course.***

Students have one year to finalize incomplete coursework and solidify their grade. If the coursework is not completed in that timeframe, a grade of "F" will automatically be applied to the student's transcript.

Transfer Credits

Graduate School rules allow students to transfer up to 12 semester credits towards a MS degree and 30 semester hours toward the PhD degree for courses taken either at another university or as a non-degree student at UCD. Courses taken at any CU campus by students enrolled in a program are not considered transfer credits.

Transfer of credit from other universities must meet the following criteria:

1. The course must be graduate level, i.e., offered within the degree program at the 5000-level or above.
2. If offered outside the degree program, (including transfer credits), are 5000- equivalent level or higher and are approved for a specific degree plan by the program.
3. The grade must be at least a B- for MS students and at least a B for PhD students.
4. The student must have at least a 3.0 GPA in our program after at least one semester in the program.
5. The work must have been completed within the past five years or validated by a Program Director to ensure that the content has not significantly changed since the courses were taken.

6. The student must submit an outline and/or syllabus from the course to a program director for content review.
7. The request for transfer must be made on a form obtained from the Graduate School. The form must be completed by the student, endorsed by the advisor and the program director, and sent to the Graduate School along with an official transcript showing the course.

Waiving Courses

If a student believes that he/she has covered the content of a required course in previous course work, he/she may request to waive the course. To waive a course, the student consults the instructor teaching the course, bringing evidence of his/her previous work in the subject. With approval from the Instructor, Program Director, and Associate Dean for Academic Affairs, the student can substitute the course requirement with an equivalent number of hours in an elective course or independent study.

Foundational Public Health Knowledge Requirement

It is a requirement of the school's accreditation that all ColoradoSPH MS and PhD students are grounded in foundational public health knowledge. This is a curriculum requirement of the MS program, and a prerequisite to the PhD program. To satisfy this requirement, all MS and PhD students must complete the following courses:

- Foundations in Public Health (PUBH6600- 2 credits)
- Public Health Concepts for Non-MPH (EHOH 6601- 1 credit)
- Epidemiology (EPID 6630- 3 credits)

Students with a prior MPH degree or a graduate-level degree from a CEPH-accredited institution may be eligible to waive this requirement. These students must submit a requirement waiver request form to the Office of Academic affairs, documenting the student's eligibility to waive this requirement. The form is available at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/resourcesfor/currentstudents/academics/Pages/Forms.aspx>

Epidemiology MS students who are approved to waive this requirement must replace the associated waived credits with an equal number of alternative elective credits.

Degree Plans

Coursework Requirements

Students who have had some of the required (or equivalent) courses prior to admission into the program may be allowed to substitute credit hours using those courses. The following tables list the credit hours required to complete the MS and PhD in Epidemiology.

MS Requirements

Coursework Prerequisites

Students are required to have taken two semesters of calculus and one semester of an upper-level biological or behavioral sciences class prior to entrance in the program. The following table lists the credit hours required to complete the program.

Course Requirements	Credit Hours
Core Epidemiology Coursework	12 total
EPID 6626 (Research Methods)	3
EPID 6630 (Epidemiology)	3
EPID 7631 (Advanced Analytical Epidemiology)	3
EPID 7632 (Advanced Epidemiology)	3
Topic-Based Epidemiology Coursework	7 total
EPID 6635 (Epidemiology of Communicable Diseases)	2
EPID 6622 (Cancer Prevention and Control)	2
EPID 6624 (Public Health Surveillance)	2
EPID 6629 (Clinical Epidemiology)	2
EPID 6634 (Applied Global Health Epidemiology)	2
EPID 6635 (Communicable Disease Epidemiology)	2
EPID 6636 (Chronic Disease Epidemiology)	3
EPID 6637 (Injury Epidemiology and Control)	2
EPID 6638 (Global Cardiovascular Epidemiology)	2
EPID 6640 (Investigation of Disease Outbreaks)	2
EPID 6641 (Epidemiology of Foodborne and Diarrheal Diseases)	2
EPID 6642 (Genetics in Public Health)	2
EPID 6643 (Epidemiology and Prevention of TB/HIV/STDs)	2
EPID 6644 (Maternal Child Health Epidemiology)	3
EPID 6646 (Introductions to Systematic Reviews)	1
EPID 7605 (Research Methods with Secondary Data Sources)	3
EPID 7615 (Pharmacoepidemiology)	2-4
EPID 7640 (Genetic Epidemiology)	2
Core Biostatistics Coursework	9 total
BIOS 6611 (Biostatistical Methods I)	3
BIOS 6612 (Biostatistical Methods II)	3
BIOS 6680 (SAS Database Design and Management)	3
General Public Health Coursework	3 Total
PUBH 6600 (Foundations in Public Health)	2
EHOH 6601 (Public Health Concepts for Non-MPH)	1
Additional Coursework	3 Total
CLSC 7151 (Ethics in Research)	1
Electives*	2
Thesis/ Research Paper	4 Total
EPID 6651/ EPID 6950	4
Total Semester Credit Hours	38

*All ColoradoSPH courses are potential electives. Contact your program director if you have a question about a specific course.

MS Example Sequence

Year 1	
Fall	BIOS 6611 (Biostatistical Methods I) (3) BIOS 6680 (SAS Database Design and Management) (3) EPID 6630 (Introduction to Epidemiology) (3)
Spring	BIOS 6612 (Biostatistical Methods II) (3) EPID 6626 (Research Methods in Epidemiology) (3) EPID 6635 (Epidemiology of Communicable Diseases) (2)
Year 2	
Fall	EPID 7631 (Advanced Analytical Epidemiology) (3) EPID 6636 (Chronic Disease Epidemiology) (3) Elective (2)
Spring	CLSC 7150 (Ethics and Responsible Conduct of Research) (1) EPID 7632 (Advancement Epidemiology) (3) PUBH 6600 (Foundations of Public Health) (2) EHOH 6601 (Public Health Concepts for Non-MPH) (1)
Year 3	
Summer/Fall	EPID 6637 (Injury Epidemiology and Control) (2) EPID 6651 (Thesis/Research Paper) (4) Final Comprehensive Exam

PhD Requirements

Coursework Prerequisites

Students are required to have taken two semesters of calculus and one semester of organic chemistry prior to entrance in the program. Students without sufficient epidemiology, public health or biological training may be accepted into the program contingent upon the completion of specified science courses prior to matriculation or within an approved period of time after admission (e.g., EPID 6630; PUBH 6600& EHOH 6601). Documentation of broad public health background is required. See “Foundational Public health Knowledge Requirement” in this handbook.

The following table lists the credit hours required to complete the program:

Course Requirements	Credit Hours
Core Epidemiology Coursework	6 total
EPID 7631 (Advanced Analytical Epidemiology)	3
EPID 7632 (Advanced Epidemiology)	3
Core Biostatistics Coursework	6 total
BIOS 6611 (Biostatistical Methods I)	3
BIOS 6612 (Biostatistical Methods II)	3
Research Methods Coursework	13 total
EPID 7605 (Research Methods with Secondary Data Sets)	3
EPID 7911 (Field Methods)	3
EPID 7912 (Research Grant)	3
Analytic Methods in Epidemiology*	4
Additional Coursework	13 total
CLSC 7150 (Ethics and Responsible Conduct of Research)	1
Biomedical Sciences (at graduate level)	6
Electives	6
Dissertation	30 total
EPID 8990	30
Total Semester Credit Hours	68

*A minimum of 4 credits from the following or approval from Program Director for other courses:

- BIOS 6623 (Advanced Data Analysis)
- BIOS 6655 (Statistical Methods in Genetic Associations)
- EPID 7915 (Analytic Epidemiology modules, e.g., survival analysis; health risk assessment; survey data analysis; GIS; longitudinal data analysis)

PhD Example Sequence

Year 1	
Fall	BIOS 6611 (Biostatistical Methods I) (3) EPID 7631 (Advanced Analytical Epidemiology) (3) Elective
Spring	BIOS 6612 (Biostatistical Methods II) (3) EPID 7605 (Research Methods in with Secondary Data Sets) (3) EPID 7632 (Advanced Epidemiology) (3)
	Preliminary Examination
Year 2	
Fall	EPID 7911 (Epidemiologic Field Methods) Analytic Methods in Epidemiology Elective
Spring	CLSC 7150 (Ethics and Responsible Conduct of Research) (1) EPID 7912 (Research Grant) (3) Analytic Methods in Epidemiology
	Teaching Assistant Requirement
Year 3	
Fall	EPID 7911 (Epidemiologic Field Methods) Biomedical Minor
Spring	Biomedical Minor EPID 8990 (Dissertation Credits)
	Comprehensive Examination
Year 4	
Fall	EPID 8990 (Dissertation Credits)
Spring	EPID 8990 (Dissertation Credits)
Year 5	
Fall	EPID 8990 (Dissertation Credits)
Spring	EPID 8990 (Dissertation Credits)
	Final Defense

MS Program Guidelines

Electives

Students may take elective course work at the Colorado School of Public Health and in other departments and campuses of the University of Colorado. Students should receive approval from their academic advisor and program director as to the appropriateness of courses for elective credit.

Epidemiology Discussion Group

Epidemiology Discussion Groups (EDG) are presentations given by faculty, and students in the MS and PhD program. Attendance is required for MS and PhD students in Epidemiology. Students in year 2 and above are required to present once every academic year. Students are encouraged to present on one aspect of their current doctoral or masters research. If a student does not have a thesis project, then the topic could be a current project (7911) or a complex epidemiology topic. The encouraged structure is a 30-45 minute description the project, background literature, methodological approaches, and findings. The remaining time is spent discussing the methodological issues posed by the student. The student must work with their advisor or another faculty member to plan and facilitate the EDG; the student should verify that the faculty member can attend the planned date before signing up for a specific date. One week before the scheduled EDG, the student will distribute a title and one paragraph abstract.

MS Thesis or Research Proposal

After completing the first year of coursework, students should assemble a thesis or research paper committee. The committee should have at least three members and the majority of the members, including the chair, must be from the Epidemiology core-training faculty (see below). The primary mentor and committee chair must be tenured or tenure-track Full, Associate, or Assistant professors who hold doctoral degrees (PhD, DPhil, EdD, or PsyD). If the student wishes for a full, associate, or assistant professor with a professional or clinical degree to serve as a mentor or chair, it is their responsibility to petition the Graduate School for special permission. The student should arrange committee meetings at least twice a year to discuss progress and a time line for completing the thesis or research paper, and should meet with their mentor/chair more often. First, a proposal is developed based on the NIH format, outlining the background, significance and specific aims for the proposed research. In addition, a detailed methods section should be developed to demonstrate understanding of study design issues and the analytic approach along with any preliminary findings. The student then gives a presentation of the proposal to the committee (this is not a formal Graduate School exam). When the committee approves the proposal, the members of the committee sign the proposal acceptance form. The acceptance form is forwarded to the academic affairs specialist and placed in the student's file along with a copy of the proposal. Minutes of the regular committee meetings are forwarded to the academic affairs specialist for the student's file to document progress in their research.

Note: Students must receive approval of their committee from the Program Director at least 3 months prior to scheduling the comprehensive examination. Please see the Epidemiology Core Program Faculty policy included in this handbook.

All committee members must have, or be eligible for, a Graduate School faculty appointment. A Graduate School faculty appointment listing is posted on-line at:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/faculty.aspx>

The student must provide a current curriculum vitae (CV) for any committee member who requires a Graduate School faculty appointment to the Academic Affairs Specialist who will process the appointment.

Application for Admission to Candidacy

Students must complete the application for admission to candidacy for the MS degree. The student obtains signatures from the Advisor and Chair of the MS exam committee. The student then forwards the form to the Program Director for verification of the courses listed that are to be applied towards the degree and signature. The student then submits the form to the Academic Affairs Specialist **at least five weeks in advance, and by the Graduate School deadline for that term, whichever is earlier**, before scheduling the final exam. Once all signatures have been obtained the Academic Affairs Specialist will submit the form to the Graduate School *at least one month* prior to the exam or **by the Graduate School deadline for that term, whichever is earlier**. The required form can be obtained from the Graduate School website:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

In addition to the Application for Admission to Candidacy, students must also submit an application for graduation through the UCD Access student portal before the posted deadline for the graduation semester.

MS Degree Final Examination

All candidates for the MS degree are required to take a final examination after all other requirements for the degree have been completed and approval for graduation has been granted. The final examination is a presentation and defense of the thesis or research paper, as well as questions from the committee. The research paper or thesis must be submitted to and approved by the examining committee before scheduling the final examination. Students must submit the Request for Graduate Examination/Thesis Defense form. Students must also obtain the Program Director's signature on the form. Students then submit the form to the Academic Affairs Specialist **at least three weeks** before the exam date. The Academic Affairs Specialist will submit the form to the Graduate School **at least two weeks** prior to the exam. The Request for Examination/Thesis Defense form can be found on the Graduate School website:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

All Graduate School guidelines and specifications must be followed. In particular, if choosing the thesis option, the student must meet with the Assistant Dean of the Graduate School before the final exam to go over formatting of the thesis. Please schedule your thesis pre-check-up two weeks in advance, to allow time to get onto the Assistant Dean of the Graduate School's calendar. To schedule an appointment with the Assistant Dean of the Graduate School, please contact the Graduate School Office at 303-724-2911.

Final Comprehensive Examination/Defense

The examination committee will conduct the final examination orally. The defense consists of a seminar of 40-50 minutes, is generally open to the public unless otherwise specified, and is followed by

an oral examination by the committee. All members of the committee must be present for the examination. One member, but not the chairperson or the student, may participate by interactive video. Below is a list of the possible outcomes:

Pass – You must receive the affirmative votes of the majority of the members of your committee in order to pass.

Pass with conditions – The committee may feel that although you have passed the examination you should complete additional work on the thesis. These conditions will be specified and must be satisfied within 4 months of the defense. Failure to satisfy these conditions will result in failure of the examination.

Fail – If you fail the examination, per Graduate School rules you may be subject to immediate dismissal from the program. At the program’s discretion, you may be allowed to retake the examination once. The retake will be in a format designated by the committee and must be completed by the end of the next academic semester, excluding the summer term. It is important to note that students will be required to meet registration and enrollment requirements for the semester in which they re-take the examination.

A MS thesis is submitted to the Graduate School according to their format. A MS research paper is submitted to a journal. Consult the Graduate School graduation deadlines calendar for the dates of submission.

Graduation

Students must apply for a diploma for their intended semester of graduation by submitting an “Intent to Graduate” form through the UCD Access student portal by the specified deadline for the graduation term.

Ceremonies

A campus-wide commencement ceremony is held once a year in May on the CU Anschutz Medical Campus. In addition, the Graduate School and ColoradoSPH offer separate convocation ceremonies for their graduates. All graduates for that academic year, or the previous August or December, are invited to attend the campus-wide, Graduate School, and ColoradoSPH convocation ceremonies. The graduation ceremony and Graduate School graduation ceremonies are usually held on the last Thursday and Friday in May, respectively.

Official regalia must be worn to participate in these ceremonies. Additional details will be posted on the website and emailed to students prior to the event.

Time Limit

MS students have **five (5)** years to complete all degree requirements, including the filing of the thesis or submitting the research paper, for the degree. Students who fail to complete the degree requirements within the five-year time period are subject to termination from the Graduate School upon recommendation from the program director and concurrence of the Assistant Dean of the Graduate School. Requests for extension will be considered under extenuating circumstances only.

Departmental Copy of Thesis or Research Paper

The program requests that a professionally bound or electronic copy of the thesis or research paper be provided to the department.

PhD Program Guidelines

Electives

Students may take elective course work at the Colorado School of Public Health and in other departments and campuses of the University of Colorado. Students should receive approval from their academic advisor and program director as to the appropriateness of courses for elective credit.

Field Methods Project(s)

This course is intended to give PhD students the opportunity to work closely with faculty on current epidemiologic projects to develop skills in the operational aspects of field research. Such skills include proposal writing, budget development, staff hiring and training, protocol and instrument development and implementation, quality control procedures, data collection and management, community liaison and report writing. The project may be for one or more semesters. Students will register for 1, 2, or 3 credits with a total of 3 credits required for the PhD degree. Registration need not be continuous. Once you have completed a project with one faculty member, the program encourages students to work with a different faculty member on the next project. It is the student's responsibility to establish an educational contract for specific learning objectives and products for the project with the faculty mentor in consultation with the Epidemiology Program director before registering for course credits. The student will carry out the project in collaboration with the project mentor and the mentor will assign the course grade.

Please note: It is not possible to receive course credit and money for the same project. Thus, persons employed on a project have to use their own time, and conduct a project they would not otherwise complete for their employer.

Preliminary Examination

Acceptance of a graduate student into a program of study leading to the doctoral degree is not implied by admission to the Graduate School, but occurs upon successful completion of the preliminary examination. Students must take a written preliminary examination at the end of Year 1 in the program. The exam covers material from EPID 7605, 6630, 7631, 7632, and BIOS 6611 and 6612. Any deviation from this has to be approved by the program director. This examination must be passed for the student to continue in the program. Students who do not pass the exam (or a section thereof) are required to retake the exam (or section) the next time the exam is offered. The exam may be retaken once and is generally given each year in June.

Teaching Requirement

All epidemiology PhD students are required to be a teaching assistant (TA) for at least one **core epidemiology program course** within the ColoradoSPH to meet the requirements of the degree program. Students must receive approval from the program director before arranging the teaching assistantship. Once that approval has been obtained, students are expected to contact the instructor

for the course they would like to TA. It is the student's responsibility to arrange the teaching assistantship.

Biomedical Science Requirement

All doctoral students will be expected to develop knowledge of at least one field of human biology or medicine. Such fields include, but are not limited to: human genetics, biophysics, medical physiology, clinical pathology, anatomy, human ecology, and health demography. These courses can be taken at the School of Medicine, School of Pharmacy, or in other basic science doctoral programs at CU Denver. Students may also take courses at the Downtown or Boulder campuses to meet the requirement. The purpose of this work is to provide a broader educational experience and to help prepare students for the comprehensive examination. The work is intended to help the student develop the ability to formulate cogent research questions, and to communicate and interpret quantitative results to health professionals. Examples of biomedical science electives can be found at the end of the handbook.

Epidemiology Discussion Group

Epidemiology Discussion Groups (EDG) are presentations given by faculty and students in the MS and PhD programs. Attendance is required for MS and PhD students in Epidemiology. Students in year 2 and above are required to present once every academic year. Students are encouraged to present on one aspect of their current doctoral or masters research. If a student does not have a thesis project, then the topic could be a current project (7911) or a complex epidemiology topic.

The encouraged structure is a 30-45 minute description of the project, background literature, methodological approaches, and findings. The remaining time is spent discussing the methodological issues posed by the student. The student must work with their advisor or another faculty member to plan and facilitate the EDG; the student should verify that the faculty member can attend the planned date before signing up for a specific date. One week before the scheduled EDG, the student will distribute a title and one paragraph abstract.

Comprehensive Examination and Dissertation Defense Committee

Students select at least five members to serve as an examination committee for the Comprehensive Examination and Dissertation Defense. This committee is required to meet at least twice a year.

Note: Students must receive approval of their committee from the Program Director at least 3 months prior to scheduling the comprehensive examination. Please see the Epidemiology Core Program Faculty Policy included in this handbook.

All members must have, or be eligible for, a Graduate School faculty appointment. A Graduate School faculty appointment listing is posted on-line at:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/faculty.aspx>

For any committee member who requires a Graduate School faculty appointment, the student must forward a copy of the committee member's current curriculum vitae (CV) to the Academic Affairs Specialist who will process the appointment. The student's main technical advisor/mentor may not be the Chair of the examining committee. The primary mentor, co-mentor (if applicable) and committee chair must be tenured or tenure-track Full, Associate, or Assistant Professors who hold doctorate degrees (PhD, DPhil, DSc, EdD, or PsyD). If the student wishes for a full, associate, or assistant

professor with a professional or clinical doctoral degree to serve as a mentor or chair, it is their responsibility to petition the Graduate School for special permission. In addition, the committee, as a whole, must meet the following minimum criteria:

1. Two members of the committee must be part of the Epidemiology Core Program Faculty. One of these two members will become the Chair of the dissertation committee. The other will serve as the mentor for the project. Both faculty members serve as the student's academic advisors for the duration of the dissertation project (please refer to list A).
2. One member of the committee must be from the Department of Biostatistics and Informatics (please refer to list B).
3. One member must be from outside the School. An outside member is defined as a person without a primary faculty appointment at the Colorado School of Public Health. This could include persons with no appointment in the School or with either a clinical or secondary appointment in the School.
4. The remaining slot on the committee can be filled by anyone who meets criteria 1-3 above.

Application for Admission to Candidacy

Students must complete the application for admission to candidacy for the PhD degree. The student obtains signatures from the Advisor and Chair of the PhD committee. The student then forwards the form to the Program Director for verification of the courses listed that are to be applied towards the degree and signature. The student then submits the form to the Academic Affairs Specialist **at least five weeks in advance, and by the Graduate School deadline for that term, whichever is earlier**, before scheduling the comprehensive exam. Once the student obtains all signatures the Academic Affairs Specialist will submit the form to the Graduate School **at least one month prior to the exam or by the Graduate School deadline for that term, whichever is earlier**. The required form can be found on the Graduate School website:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

Scheduling the Comprehensive Exam

The Request for Graduate Examination/Thesis Defense form is required to schedule the comprehensive exam. Students must obtain the Program Director's signature on the form. Students then submit the form to the Academic Affairs Specialist at least three weeks before the exam date. The Academic Affairs Specialist will submit the form to the Graduate School at least two weeks prior to the comprehensive exam date. The Request to Schedule an Exam form can be found on the Graduate School website.

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

Comprehensive Examination

The Dissertation Committee will administer oral and written comprehensive examinations when a student has chosen a dissertation topic and is ready to initiate the project. ***The comprehensive exams must be taken no later than the end of the third year, except under extenuating circumstances.*** The written exam will consist of a literature review and research proposal. The oral examination consists of a presentation and discussion of the student's dissertation proposal. In addition, the student should demonstrate in-depth knowledge of the biological and methodological issues pertinent to the student's project. The literature review and dissertation proposal should be submitted in writing to the

dissertation committee at least 3-5 weeks before the oral exam. The literature review and proposal should be written in NIH research proposal format outlining the background, significance and specific aims for the proposed research. In addition, a detailed methods section should demonstrate an understanding of study design issues and the analytic approach along with any preliminary findings. NIH page restrictions do not apply. When both the written and oral parts of the comprehensive examination have been passed, and the other Graduate School requirements are complete, students can proceed with their dissertation. The required forms can be obtained from the Graduate School website:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/program-resources/Pages/forms.aspx>

Below is a list of the possible outcomes for your comprehensive exam:

Pass- you receive the affirmative votes of the majority of the members of your committee in order to pass.

Pass with conditions- the committee may feel that although you have passed the examination you should complete additional work on the thesis. These conditions will be specified and must be satisfied within 4 months of the defense.

Fail- if you fail the examination, per Graduate School rules you may be subject to immediate dismissal from the program. At the program's discretion, you may be allowed to retake the examination once. The retake will be in a format designated by the committee and must be completed within 6 months. It is important to note that students will be required to meet registration and enrollment requirements for the semester in which they re-take the examination.

Continuous Registration Requirement- Post Comps

Following successful completion of the Graduate School comprehensive exam, students must register for at least 5 dissertation credits, EPID 8990, each semester (excluding the summer semester). If the dissertation defense is during the summer semester, the student must register for 5 dissertation credits for that semester. A maximum of 10 dissertation credits can be taken in any semester, unless approval is received from the Assistant Dean of the Graduate School. *Only 10 of the dissertation credits taken prior to the comprehensive examination will count towards the required 30. At least 20 dissertation credits, out of the 30, must be taken after the comprehensive exam.*

Note: Once a student has completed 30 dissertation credits, then the student is only required to register for one dissertation credit for fall and spring semester. Summer registration is only required if the student plans to do their examination during summer semester.

Post-Comp Committee Meetings

Students are required to meet with their Dissertation Committee at least twice each year. Students must submit meeting minutes/notes to the academic affairs specialist to be kept in their file.

Dissertation

A dissertation based upon original investigation and showing mature scholarship must be written and approved by your examining committee. It must be submitted at least 3 weeks prior to the final examination and formally approved by the dissertation committee before the final examination.

The Request for Examination/Thesis Defense form is required to schedule the dissertation defense. Students must obtain the Program Director's signature on the form. Students then submit the form to the Academic Affairs Specialist at least three weeks before the exam date. The Academic Affairs Specialist will submit the form to the Graduate School at least two weeks prior to the dissertation defense date. The Request to Schedule an Exam form can be found on the Graduate School website:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

All Graduate School guidelines and specifications must be followed. Students must register for a total of 30 semester hours of doctoral dissertation credit, with no more than 10 credits taken in any one semester, unless approval is received from the Assistant Dean of the Graduate School.

Note: Students must meet with the Assistant Dean of the Graduate School before the defense for a mandatory thesis pre-check. Please schedule your thesis pre-check two weeks in advance, to allow time to get onto the Assistant Dean of the Graduate School's calendar. To schedule an appointment with the Assistant Dean of the Graduate School, please contact the Graduate School Office at 303-724-2911.

Defense

The examination committee will conduct a final examination of the dissertation and related topics orally. The defense consists of a 40-50 minute seminar, open to the public, followed by an oral examination by the committee. All members of the committee must be present for the examination. One member, but not the chairperson or the student, may participate by interactive video. Below is a list of the possible outcomes for your defense:

Pass – You receive the affirmative votes of the majority of the members of your committee in order to pass.

Pass with conditions – The committee may feel that although you have passed the examination you should complete additional coursework on the thesis. These conditions will be specified and must be satisfied within 60 days of the defense.

Fail – If a student fails the examination, s/he may not continue in the program.

Graduation

Students must apply for a diploma for their intended semester of graduation by submitting an "Intent to Graduate" form through the UCD Access student portal by the specified graduation term deadline.

Ceremonies

A campus-wide commencement ceremony is held once a year in May on the CU Anschutz Medical Campus. In addition, the Graduate School and ColoradoSPH offer separate convocation ceremonies for

their graduates. All graduates for that academic year, or the previous August or December, are invited to attend the campus-wide, Graduate School, and ColoradoSPH convocation ceremonies. The graduation ceremony and Graduate School graduation ceremonies are usually held on the last Thursday and Friday in May, respectively.

Official regalia must be worn to participate in these ceremonies. Additional details will be posted on the website and emailed to students prior to the event.

Time Limit

Students will have **seven (7)** years to complete all requirements, including dissertation, for the degree. Students who fail to complete the degree requirements within the seven-year time period are subject to termination from the Graduate School upon recommendation from the program director and concurrence of the Assistant Dean of the Graduate School. Requests for extension will be considered under extenuating circumstances only.

Departmental Copy of Dissertation

The Program requests that a bound hard copy or electronic copy of the dissertation be provided for the department.

Organization and Content of Courses

Core Courses

EPID 7605 – Research Methods with Secondary Datasets

This course covers the principal methods of research design and analysis tailored to the issues commonly encountered using secondary data sources collected for public health surveillance and research (e.g., U.S. Census, vital statistics, NHANES, NHIS, BRFSS, SEER, NACCHO profiles, MEPS, etc.).

EPID 6630 – Epidemiology

Introduction to approaches/methods used in describing the natural history of disease in the community and for locating clues to causes of disease and analytical epidemiology used in the study of disease etiology and critical review of the public health literature.

EPID 7631 – Advanced Analytical Epidemiology

Course emphasizes analytical foundations of epidemiology and its application to etiologic studies and public health practice. Topics include determining rates of disease occurrence, assessing exposure-disease relationships, stratified analysis, and measurement error and sampling. Final project requires analysis/interpretation of epidemiologic data.

EPID 7632 – Advanced Epidemiology

This is an advanced course on epidemiologic methods designed to improve the student's ability to conduct and interpret observational epidemiologic studies.

EPID 6635 – Epidemiology of Communicable Diseases

This course considers the epidemiology of selected communicable diseases. Methods for their prevention and control, and assessment of these methods will be treated primarily through case studies.

EPID 6636 – Chronic Disease Epidemiology

The major chronic diseases of Western countries will be reviewed including heart disease, cancer, stroke, diabetes, neurological diseases, and selected other conditions. Factual information about epidemiology of these diseases will be provided with the discussion of methodological issues which arise.

EPID 6637 – Injury Epidemiology and Control

Students will learn the major causes of and risk factors for injuries and violence, identify and use key data sources to characterize injury problems, develop and evaluate injury control and prevention strategies, critically analyze literature and explore injury related research options.

EPID 6644 – Maternal Child Health Epidemiology

This course will teach public health students to use information from epidemiology and advanced analytic specialties such as trend analysis, multivariate analysis, small area analysis, geographic information systems and assessment secular trends to design, assess, plan, and evaluate MCH programs.

EPID 6651 – MS Research Paper

Masters research paper in Epidemiology is completed under this course.

EPID 6950 – MS Thesis

Epidemiology Master's thesis work is completed under this course.

EPID 7911 – Epidemiologic Field Methods

PhD students have the opportunity to work with faculty on current epidemiologic projects to develop skills in field research, proposal writing, budget development, staff hiring and training, protocol and instrument development and implementation, and specific methods topics.

EPID 7912 – Developing a Research Grant

Course instructs students on how to prepare high quality, successful, research grant applications. It offers students an opportunity to familiarize themselves with the grant writing and review process, enhance critical thinking skills, formulate a hypothesis and interpret results, and improve the quality of their scientific writing.

EPID 8990 – Doctoral Thesis: Epidemiology

Doctoral thesis work in Epidemiology.

BIOS 6611 – Biostatistical Methods I

This is a first course in applied statistics covering elementary probability, descriptive, parametric and non-parametric methods for one and two sample estimation/testing and some common simple cases of the univariate general linear model. The statistical package SAS used extensively.

BIOS 6612 – Biostatistical Methods II

This is a continuation of BIOS 6611 covering univariate linear modeling and emphasizing multiple regression and analysis of variance. Logistic regression and methods for correlated data are also covered. Matrix algebra and the statistical package SAS will be used.

BIOS 6623 – Advanced Data Analysis

This course teaches the students how to be effective collaborators. Students will learn to modify project hypotheses to be statistical hypotheses. The students will identify and perform the appropriate data analyses and communicate their analyses both verbally and in writing.

BIOS 6655 – Statistical Methods in Genetic Association Studies

This course is designed to give an introduction to statistical methods in genetic association studies. Topics include an introduction to population genetics topics relevant to genetic association studies, design strategies, and analysis methods for case-control and family data.

BIOS 6680 – SAS Database Design/Management

Course introduces students to how SAS can be used to manipulate data and prepare it for analysis: inputting, recoding, reformatting, sub-setting and merging data, and simple reports and SAS Macros. Principles and implementation of database design will also be discussed.

CLSC 7151 – Lectures in Ethics and Regulation in Human Subjects Review

This course will provide an overview of the field of ethics in clinical research. It is designed for non-Clinical Science degree and certificate students and investigators who will be conducting research involving human subjects. Topics include the historical background, current regulations, and IRB requirements.

PUBH 6600 – Foundations in Public Health

This course examines the historical and conceptual bases of public health, the key issues and problems faced by the public health system, and the tools available for the protection and enhancement of the public's health.

Examples of Biomedical Science Courses

These are just a few examples for courses, which meet the biomedical minor requirement. Please refer to the current UCD AMC Graduate School course book for more detailed course descriptions and specific information regarding prerequisites and the semester the course is being offered. The current UCD AMC Graduate School course book may be found at:

<http://www.ucdenver.edu/anschutz/studentresources/Registrar/CourseListings/Pages/default.aspx>

*Note: Some of the course descriptions include comments from Epidemiology doctoral students who have taken the course. Look for an * for their evaluation.*

BMST 7350 – Proteins

Provide chemical/physical basis for protein structure, folding, function, and stability. Presents methods/principles of protein/peptide purification and enzyme catalysis including electron transfer and

mutagenesis. The role of molecular dynamics and use of molecular simulations in the investigations of protein-ligand/protein-protein interactions

BMST 7354 – Structural Analysis of Biomolecules I

Describes fundamentals of spectroscopic methods used to study protein structure/function. These techniques include optical methods (CD spectroscopy, fluorescence, and absorbance) vibrational methods (IR and EST), analytical ultracentrifugation, mass spectrometry, calorimetry, light scattering, and Biacore analysis. Taught alternate years.

BMST 7454 – Structural Analysis of Biomolecules II

Methods and strategies for determination of the primary and 3-dimensional structures of biologically important molecules. Crystallography, nuclear magnetic resonance spectroscopy and mass spectrometry will be taught in structural determination of proteins, nucleic acids complex carbohydrates, and lipid molecules.

CANB 7620 – Histophysiology

Discussions of cell interactions, tissue physiology, and renewal based upon the histologic cell types and structures present. Where pertinent, pathologic alterations will be introduced to facilitate identification of the important normal functions/structures.

CLSC 7500 – Practical Application of Molecular and Cell Biology Techniques for the Clinical Investigator

Designed to teach clinical investigators basic molecular and cellular biology techniques. Format will be hands-on with lectures designed to illustrate significance and clinical application of techniques. Weekly special topics lectures will cover cutting edge technologies and their application.

** Epidemiology doctoral student evaluation: Highly recommended.*

HMGP 7600 – Survey of Human Genetics

**Epidemiology doctoral student evaluation: HMGP 7600 is a great course, which covers many aspects of human genetics. It is very interesting and helpful to any student who is interested in genetic epidemiology. However, it assumes a fairly high background level of genetics knowledge. This course more or less assumes that you have background knowledge of at least one semester of an undergraduate course specifically in genetic; Recommended - Lots of information, good overview of the field. Many instructors lecture; It was far more challenging and required significantly more background than traditional "survey" courses. Should probably be considered a preliminary exam prep course for HMGP students. However it was a beneficial course and it was possible for someone with minimal background to pass and learn a good deal of genetics.*

Survey of human genetics, including Mendelian and other forms of inheritance, chromosomes and cytogenetics, molecular and biochemical basis of genetic disease, quantitative genetics and gene mapping, developmental and cancer genetics, clinical genetics, and genetic screening and prenatal diagnosis.

HMGP 7620 – Genomics

An introduction to the theory and practice of genomics. Topics include sequencing and mapping, overview of genomes, transcriptomes, bioinformatics and statistics, population-level variation, ethics, evolutionary genomics, epigenomics, proteomics, metagenomics, and functional genomics.

IMMU 7630 – Overview of Immunology

*Epidemiology doctoral student evaluation of the former course, IMMU 7629: This is a basic course in cellular and clinical immunology. It is a lecture course with one comprehensive final exam. This course is an excellent introduction to the principles of human immunology and gives a good overview of some basic research methodologies used in the field. Anyone with some basic biology background should be able to follow the course material. Students who have not had upper-level cellular biology or biochemistry may have to do some extra reading for the exams, but all of the course material is very well referenced. The instructor for this course is Dr. John Cohen. His lectures alone make the class worthwhile; Best course, I've taken. Tremendous instructor – draws connections on many topics, contributes to an overall understanding of Human Biology. Provides an overview of immunology for non-Immunology-program graduate students. The focus is human relevance and the practical use of immunology in a variety of fields. Students gain experience applying immunological knowledge to their own area of interest.

IMMU 7662 – Immunology

This course covers the basic principles of the immune system. Included are discussions on (i) the innate and adaptive immune responses, (ii) the molecular and cellular basis of immune specificity and (ii) aspects of clinical immunology.

MICB 7701 – Molecular Virology and Pathogenesis

Topics in this course include viral structure and genome organization, replication and expression of viral genomes, mechanism of action of tumor viruses, molecular aspects of virus-host cell interactions, animal models of infectious diseases and pathogenesis of human viruses.

MICB 7702 – Molecular Mechanisms of Bacterial Disease

Course will provide an introduction to the biology of pathogenic bacteria and an in-depth discussion of several paradigms of bacterial diseases, which will illustrate important concepts, and molecular mechanisms of bacterial pathogenesis and evasion of the host defenses.

MICB 7704 – Host Response to Infectious Disease

This interactive graduate course, which provides an overview and specific examples of the host response to infectious disease. Current research and future directions in the field are discussed. Students are assessed via presentations, participation, and an exam.

MICB 7705 - Medical Microbiology

This course will focus on Microbiology and Infectious Diseases. Course content will focus on: pathogenic bacteria, viruses, fungi, parasites; emphasis on microbial virulence determinants, host-pathogen interactions emphasizing host immune responses, signs, symptoms of disease presentation, epidemiology, and diagnosis of infectious diseases.

MOLB 7800 – Advanced Topics in Molecular Biology

This course is intended to teach graduate students how to critically evaluate scientific literature. The course will be divided into 4 blocks, and topics will include nucleic acid, chromatin structure, DNA replication, RNA transcription, RNA processing, cell cycle control, and genetics of model organisms. Papers are chosen by instructors, presentations are by students.

NRSC 7610 – Fundamentals of Neurobiology

This course will provide basic knowledge on the structure and function of the nervous system. The lectures will be supplemented by discussion of primary research literature in neurobiology.

NRSC 7650 – Research in Neuroscience

Research work in neuroscience.

PHCL 7560 – Drug Metabolism and Pharmacogenetics I

Course will focus on reactions that exogenous compounds undergo in mammalian systems and mechanisms of these reactions. Enzyme kinetics and unusual (idiosyncratic) drug responses that have a hereditary basis and the interrelationship between genes and drug metabolism will be discussed.

PHCL 7561 – Drug Metabolism and Pharmacogenetics II

Course will focus on reactions that exogenous compounds undergo in mammalian systems and mechanisms of these reactions. Enzyme kinetics and unusual (idiosyncratic) drug responses that have a hereditary basis and the interrelationship between genes and drug metabolism will be discussed.

PHCL 7606 – Receptors and Cell Signaling

This elective course presents an in-depth treatment of the role of receptors and signal transduction systems in the regulation of cell functions through faculty-presented lectures and student-led discussions of current literature.

PHCL 7614 – Membrane Biophysics

Lectures and homework on ionic mechanisms underlying cellular excitability, especially in the central nervous system. Descriptive mathematics, pharmacology and molecular biology will be stressed. An introductory application to real-life problems using the NEURON simulation environment will be taught.

PHCL 7620 – Principles of Pharmacology

Lectures are provided in the general areas of pharmacokinetics, receptor theory, structure-activity relationships, drug metabolism, and basic pharmacological mechanisms with a particular emphasis on systems such as the nervous system and cardiovascular system, as well as cancer and microbial chemotherapy.

PHSC 7350 – Proteins

Chemical and physical basis for protein structure, folding, function and stability; role of molecular dynamics, use of molecular simulations in investigations of protein-ligand and protein interactions; methods and principles of protein/peptide purification and enzyme catalysis, including electron transfer and mutagenesis.

PHSC 7354 – Structural Analysis of Biomolecules I

This course describes the fundamentals of spectroscopic methods used to study protein structure and function. These techniques include optical methods (CD spectroscopy, fluorescence, and absorbance), vibrational methods (IR and ESR), analytical ultracentrifugation, mass spectrometry, calorimetry, light scattering, and Biacore analysis.

PHSC 7450 – Protein Chemistry 2

This course represents methods/principles of protein/peptide purification and enzyme catalysis, including electron transfer and mutagenesis. In addition, the investigation of protein and enzyme structure/function, the role of molecular dynamics, and the use of molecular stimulations in investigations of protein-ligand interactions will be presented.

PHSC 7454 - Structural Analysis of Biomolecules 2

Methods and strategies for determination of the primary and 3-dimensional structures of biologically important molecules. Crystallography, nuclear magnetic resonance spectroscopy, and mass spectrometry will be taught in structural determination of proteins, nucleic acids complex carbohydrates, and lipid molecules.

PHSC 7530 – Cancer: Experimental and Medical Aspects

This is an interactive seminar course on recent topics in cancer biology. Topics include the biochemical and morphological description of tumors and tumor behavior, such as metastasis and angiogenesis, and tumor development. This course also covers aspects of carcinogenesis: mechanisms, modulation, testing/epidemiology, and chemotherapy.

PHSC 7561 – Pharmacology of Anticancer Agents

This is a course that will examine the principles behind the pharmacological treatment of cancer. Focus will be on the agents currently used in the clinic as well as developing therapies. Mechanistic aspects and therapeutic strategies will also be emphasized.

PHSC 7653 – Protein Formulation

This course will provide instruction in rational design of stable therapeutic protein formulations with emphasis on the practical and mechanistic aspects of developing aqueous solution and freeze-dried formulations. Students will read papers from the literature and participate in critical discussions.

PHSC 7660 – Membrane Dynamics

This course will cover the basics of membrane bioenergetics in biological systems. The physical properties of membranes are described based on studies with liposomes, and the course further explores the use of liposomes as drug delivery vehicles.

TXCL 7322 – Molecular and Target Organ Toxicology

The course is designed to provide a foundation in molecular mechanisms of toxicity. Biochemical mechanisms underlying toxicity will be analyzed and integrated with discussions of reactive metabolites, oxidative stress, signal transduction, cell death and organ specific toxicity.

TXCL 7323 – Environmental and Target Organ Toxicology

The course is designed to provide a fundamental understanding of environmental-related toxicants (e.g. solvents, pesticides, metals, radiation) with emphases on the molecular mechanisms underlying their organ specific toxicity and on risk assessment.

TXCL 7326 – Current Concepts and Comprehensive Reviews of Physiology

This course will consist of a comprehensive overview of the physiology of nervous cardiovascular, respiratory, renal, gastrointestinal, endocrine, and reproductive systems. Graduate students enrolled in this course will receive assignments concerning organ-specific, cell-cell interactions in overall physiology.

TXCL 7560 – Drug Metabolism and Pharmacogenetics 1

This course will focus on the reactions that the exogenous compounds undergo in mammalian systems and the mechanisms of these reactions. Enzyme kinetics and unusual (idiosyncratic) drug responses that have a hereditary basis will be discussed. This interrelationship between genes and drug metabolism along with studies on polymorphic differences in genes encoding drug-metabolizing enzymes will also be discussed.

TXCL 7561 – Drug Metabolism and Pharmacogenetics

This course will focus on the reactions that the exogenous compounds undergo in mammalian systems and the mechanisms of these reactions. Enzyme kinetics and unusual (idiosyncratic) drug responses that have a hereditary basis will be discussed.

TXCL 7564 - Environmental Risk assessment and Applied Toxicology

Provides students with experience in risk assessment, environmental toxicology for public health and regulatory decision making. Topics include comprehensive human health risk assessments, baseline/probabilistic statistics, ecological risk assessment activities associated with emergency action, medical monitoring, and role toxicology plays in the courtroom.

TXCL 7575 – Drug Development for the Toxicologist

Overview of drug development process. Course will provide understanding of regulatory obligations required for submitting an N.D.A. as well as discussions related to additional corporate roles including activities for in vivo study conduct & due diligence review for licensing opportunities.

TXCL 7655 – Pharmacokinetics and Toxicokinetics

This is a course on the pharmacokinetic analysis of xenobiotics. Absorption, distribution, metabolism, and elimination of drugs will be discussed with focus on mathematical descriptions.

Epidemiology Core Program Faculty Policy

To be listed on the Graduate School EPI List, the Graduate School requires that the faculty member listed as a Core Program Faculty. Graduate School rules require that the majority of the thesis committee members are Core Program faculty.

Below is the policy used to define Core Program Faculty members for the Graduate Programs in Epidemiology:

1. Faculty with a primary appointment in the Department of Epidemiology, at the rank of Assistant Professor or above, with a terminal degree in Epidemiology or equivalent. Such faculty may serve as chairs, mentors or regular members of thesis committees.
2. Faculty with a primary appointment in the Department of Biostatistics and Informatics, at the rank of Assistant Professor or above, with a terminal degree or equivalent, who are commonly named on student committees for the role of Biostatistician
3. Faculty with a secondary appointment in Epidemiology or with a primary appointment in another Department at the Colorado School of Public Health, at the rank of Assistant Professor or above, with a terminal degree or equivalent who are demonstrating strong commitment to graduate student education. Such faculty may serve as mentors or regular members of thesis committees.
4. Faculty with a primary appointment at CSU AND an appointment in Epidemiology at ColoradoSPH, at the rank of Assistant Professor or above, with a terminal degree or equivalent who are demonstrating strong commitment to graduate student education. Such faculty may serve as mentors or regular members of thesis committees.

Strong commitment to graduate student education is demonstrated in the form of ongoing or anticipated involvement in at least two of the following activities:

- Direct thesis research as principal mentor.
- Teaching graduate course(s) as the director (or co-director).
- Serve on graduate student examination and/or thesis committees.

Appointment Requests need to be approved by the Director of the Graduate Programs and the Department of Epidemiology at ColoradoSPH before submission to the Graduate School Review Committee.

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