

HUMAN MEDICINE HM

College of Human Medicine

- 101 Introduction to Public Health**
Spring. 3(3-0)
Core public health philosophies and concepts. Health and disease – measures, determinants, health promotion and disease prevention. Introduction to health care delivery systems. Career opportunities in public health.
- 491 Special Topics in Bioethics and Medical Humanities**
Fall, Spring, Summer. 1 to 7 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of college.
Special topics in ethics and humanities of health care, proposed by faculty on a group study basis.
- 552 Medical School I**
Fall. 16 credits. A student may earn a maximum of 32 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Human Medicine.
A first course in a primary care, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development.
- 553 Medical School II**
Spring. 16 credits. A student may earn a maximum of 32 credits in all enrollments for this course. P: HM 552 R: Open to graduate-professional students in the College of Human Medicine.
Continuation of a primary care, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Includes selectives to develop areas of strength and remediate gaps.
- 554 Medical School III**
Summer. 16 credits. A student may earn a maximum of 32 credits in all enrollments for this course. P: HM 553 R: Open to graduate-professional students in the College of Human Medicine.
Continuation of a set of selectives to develop areas of strength and remediate gaps. The beginning of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development.
- 555 Medical School IV**
Fall. 16 credits. A student may earn a maximum of 32 credits in all enrollments for this course. P: HM 554 R: Open to graduate-professional students in the College of Human Medicine.
Continuation of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development.
- 556 Medical School V**
Spring. 16 credits. A student may earn a maximum of 32 credits in all enrollments for this course. P: HM 555 R: Open to graduate-professional students in the College of Human Medicine.
Continuation of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Includes selectives to develop areas of strength and remediate gaps.
- 590 Special Topics in Medicine**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 34 credits in all enrollments for this course. R: Open to students in the College of Human Medicine.
Special topics related to healthcare covering a wide variety of disciplines and fields
- 591 Special Problems in Human Medicine**
Fall, Spring, Summer. 1 to 34 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Human Medicine.
Work under the direction of a faculty member on an experimental, theoretical, or applied problem that requires a broad, interdisciplinary approach.
- 608 Sub-Specialty Clerkships**
Fall, Spring, Summer. 4 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: FMP 602 R: Open only to graduate-professional students in College of Human Medicine.
Hospital-and office-based clinical experiences in sub-specialties in medicine and surgery.
- 609 Laboratory Medicine Clerkship**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. Interdepartmental with Osteopathic Medicine. Administered by Human Medicine. R: Open to graduate-professional students in the College of Human Medicine or in the College of Osteopathic Medicine. SA: PTH 609
Laboratory procedures. Correlation of laboratory data with morphologic abnormalities in patients with pathophysiology.
- 610 Pathology Clerkship**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. Interdepartmental with Osteopathic Medicine. Administered by Human Medicine. R: Open to graduate-professional students in the College of Human Medicine or in the College of Osteopathic Medicine. SA: PTH 608
Anatomic and clinical pathology with emphasis on clinical-pathological correlation. Conducted in pathology departments of affiliated hospitals.
- 611 Hospice Clerkship**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. RB: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Treatment and interdisciplinary team evaluation in hospice medicine. Advanced care directive processes and procedures.
- 612 Pain Medicine**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Open to students in the College of Human Medicine.
Evaluation and management of pain in acute and chronic disease settings. Evidence-based principles of pain medicine. Pain pharmacology. Trigger point injections, bursa injections, joint injections, peripheral nerve blocks and injections. Pain rehabilitation, prevention and interdisciplinary management.
- 613 Complementary Medicine Clerkship**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. RB: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Evidence based management of disease and symptoms with complementary and alternative medicine.
- 614 Student-Designed Elective Clerkship**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. RB: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Customized experience of clinical science skills and knowledge. Clinical performance evaluation.
- 615 Global Health Experience in India**
Spring. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. RB: HM 556 R: Open to students in the College of Human Medicine or in the College of Osteopathic Medicine.
Rural health delivery in India. Pre-travel preparation and instruction in culture followed by experiences in pediatrics, women's health, mental health, and tropical disease.
- 616 Radiation Oncology Clerkship**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: HM 556 or approval of college R: Open to graduate-professional students in the College of Human Medicine or in the College of Osteopathic Medicine.
Diagnosis, staging, and treatment of cancers amenable to radiation therapy modalities. Indications for and complications of radiation therapy in definitive and palliative settings.
- 617 Introduction to Simulation Education Elective**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Learn and apply educational theory to the use of simulation in medical education. Participate in a blended course to learn skills necessary to conduct training including procedural or clinical skills and/or team training.
- 618 Telemedicine Experiences in Rural Clinical Settings**
On Demand. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Clinical, biopsychosocial, documentation, and ethical aspects of telehealth to address health conditions and patient needs.
- 619 Clinical Knowledge, Ethics, Epidemiology in Pandemics**
Spring, Summer. 3(3-0) P: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Survey of clinical knowledge and principles of necessary science, epidemiology, economics, ethics, and public health policy required in primary and tertiary health care settings during pandemics.

HM—Human Medicine

- 620 Clinical Bioethics**
Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Complex bioethical issues including pandemics,
physician aid-in-dying, futility/non-beneficial care,
and treatment refusal by competent patients.
- 622 Medical Partners in Public Health
Community Resources and Wellness
Programs**
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. P: HM 556
R: Approval of college.
Systematic exploration of community resources cul-
minating in the construction and implementation of
evidence-based and feasible community program-
ming.
- 623 Medical Partners in Public Health
Capstone Project Elective**
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. P: HM 556
RB: Completion of 6 credits of HM 622. R:
Approval of college.
Practical application of public health principles, epi-
demiology, biostatistics, health and public policy,
public health administration, health behavior, health
education, and environmental health.
- 624 Medical Humanities**
Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Reflection on professional medical practice by em-
ploying the skills and perspectives of the humanities,
specifically literary studies, visual and performing
arts.
- 625 Lesbian, Gay, Bisexual, Transgender,
Queer, Intersex, Asexual+ Health Care**
Fall, Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
LGBTQIA+ history and culture, identification of own
biases, and skills in engaging the LGBTQIA+ com-
munity in a clinical setting.
- 626 Special Topics in Neurologic Conditions**
Fall, Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Case-based overview of common neurologic condi-
tions, diagnosis, treatment.
- 627 Interdisciplinary Exploration with
Special Populations: Veterans Affairs**
Fall, Spring, Summer. 6(6-0) A student may
earn a maximum of 18 credits in all enroll-
ments for this course. P: FM 641 and MED
641 R: Open to graduate-professional stu-
dents in the College of Human Medicine.
Interdisciplinary VA medical education elective in the
care of a Veteran population within a Federal Veter-
ans' Affairs system. Students may work with a vari-
ety of preceptors from various specialties.
- 628 Racism and Other Health Disparities**
Fall, Spring, Summer. 3(3-0) R: Open to
graduate-professional students in the Col-
lege of Human Medicine.
Provide an understanding of the magnitude of health
disparities, particularly those that are perpetuated by
systems inequity, racism, and discrimination.
- 629 Leadership in Medicine for the
Underserved Community Elective**
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. P: HM 556
R: Approval of college. SA: MED 629
Culturally appropriate, patient centered, and com-
munity-based experience working with underserved
populations.
- 631 Leadership in Medicine for Underserved
Urban or Global Elective**
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. P: HM 556
RB: HM 629 R: Approval of college. SA:
MED 631
Patient centered and community-based experience
working with an urban and/or international under-
served population.
- 632 Rural Community Health**
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. P: HM 556
R: Approval of college.
Patient centered and community based experience
in rural medicine and rural medical health systems.
- 633 Advanced Rural Community Health**
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. P: HM 556
RB: HM 632 or FM 616 R: Approval of col-
lege.
Advanced clinical skills, knowledge, and experience
in rural patient medicine, rural community medicine,
and rural medical health systems.
- 635 Core Competencies I**
Fall, Spring, Summer. 2(2-0) A student may
earn a maximum of 6 credits in all enroll-
ments for this course. R: Open to graduate-
professional students in the College of Hu-
man Medicine.
Core knowledge and skills from an interdisciplinary
perspective.
- 636 Core Competencies II**
Fall, Spring, Summer. 2(2-0) A student may
earn a maximum of 6 credits in all enroll-
ments for this course. R: Open to graduate-
professional students in the College of Hu-
man Medicine.
Core knowledge and skills from an interdisciplinary
perspective.
- 637 Core Competencies III**
Fall, Spring, Summer. 2(2-0) A student may
earn a maximum of 6 credits in all enroll-
ments for this course. R: Open to graduate-
professional students in the College of Hu-
man Medicine.
Core knowledge and skills from an interdisciplinary
perspective.
- 639 Northern Wilderness, Emergency and
Sports Medicine**
Fall, Spring, Summer. 6 credits. R: Open to
students in the College of Human Medicine.
Approval of college.
Development of knowledge, skills and attitudes to
address the needs of patients outside of the hospital
with wilderness or sports related injuries.
- 640 Service Learning In the Community**
Fall, Spring, Summer. 1(1-0) R: Open to
graduate-professional students in the Col-
lege of Human Medicine.
Demonstrate preparation and planning to provide
services which respond to community need. Partici-
pate for 40 hours with community organization.
Demonstrate reflectivity on participation in services.
- 641 Clinical Skills Competence Experience**
Fall. 6(6-0) A student may earn a maximum
of 12 credits in all enrollments for this
course. R: Approval of college.
Review of communication skills, history-taking, and
physical examination skills in faculty-observed pa-
tient encounters.
- 642 Critical Care in the Late Clinical
Experience**
Fall, Spring, Summer. 6 credits. A student
may earn a maximum of 18 credits in all en-
rollments for this course. P: (HM 556) and
(MED 641 or PHD 641 or SUR 641) R:
Open to graduate-professional students in
the College of Human Medicine. Approval
of college.
Critical care experience in medicine.
- 643 Critical Care Experience**
Spring. 3(3-0) P: MED 641 or PHD 641 or
SUR 641 R: Open to graduate-professional
students in the College of Human Medicine.
Virtual learning experience in evaluating and man-
aging acutely ill patients
- 644 Enhanced Clinical Experience: Women's
Health**
Fall, Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Direct clinical experience emphasizing approach to
the patient, data gathering skills, physical examina-
tion, clinical reasoning, counseling skills in women
presenting with complaints and concerns related to
female health.
- 645 Enhanced Clinical Experience: Inpatient
Internal Medicine**
Fall, Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Direct clinical experience emphasizing approach to
the patient, data gathering skills, clinical reasoning,
and functioning as a member of a hospital team.
- 646 Enhanced Clinical Experience: Inpatient
Family Medicine**
Fall, Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Direct clinical experience emphasizing approach to
the patient, data gathering skills, clinical reasoning,
and functioning as a member of a hospital team.
- 647 Enhanced Clinical Experience:
Pediatrics**
Fall, Spring, Summer. 3(3-0) P: HM 556 R:
Open to graduate-professional students in
the College of Human Medicine.
Direct clinical experience emphasizing approach to
the patient, data gathering skills, clinical reasoning,
human development, care of infants and children.

- 651 Advanced Skills and Knowledge in Medical School I**
 Fall, 3(3-0) A student may earn a maximum of 20 credits in all enrollments for this course. P: HM 556 R: Open to graduate-professional students in the College of Human Medicine.
 Interdisciplinary small group course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities.
- 652 Advanced Skills and Knowledge in Medical School II**
 Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 651 R: Open to graduate-professional students in the College of Human Medicine.
 Interdisciplinary small group course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities.
- 653 Advanced Skills and Knowledge in Medical School III**
 Fall, Spring, Summer, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 652 R: Open to graduate-professional students in the College of Human Medicine.
 Interdisciplinary course combining discipline-based modules with comprehensive assessments of clinical skills and knowledge to complement concurrent USMLE Step 2 preparation for advanced medical students.
- 654 Advanced Skills and Knowledge in Medical School IV**
 Fall, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 653 R: Open to graduate-professional students in the College of Human Medicine.
 Interdisciplinary course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities.
- 655 Advanced Skills and Knowledge in Medical School V**
 Fall, Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 654 or concurrently R: Open to graduate-professional students in the College of Human Medicine.
 Preparation and assessment of residency readiness. Interdisciplinary comprehensive synthesis of clinical skills and knowledge for advanced medical students.
- 691 Research Clerkship**
 Fall, Spring, Summer, 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Human Medicine. Approval of college.
 Data gathering, analysis, interpretation, and presentation of a biological, behavioral, or clinical research project.
- 801 Introduction to Public Health**
 Fall, Spring, Summer, 3(3-0) R: Open to students in the Public Health Major or in the Public Health Graduate Certificate.
 Introduction to public health philosophy and core knowledge areas. Ethical, legal and political considerations. Emphasis on principles and tools for population health, disease prevention and health promotion, health determinants, healthcare and public health systems.
- 802 Biostatistics for Public Health**
 Fall, Spring, Summer, 3(3-0) RB: College Algebra. Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Open to students in the Public Health Major or in the Public Health Graduate Certificate.
 Practical applications and methods using software (SAS, Epi-Info) for statistical analysis, database construction, data visualization and interpretation
- 803 Epidemiology and Public Health**
 Fall, 3(3-0) RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Open to master's students in the Public Health major or in the Public Health Specialization.
 Distributions and determinants of disease in population. Epidemiologic research, quantitative methods, study designs pros/cons.
- 804 Public Health Policy and Administration**
 Spring, 3(3-0) RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Open to master's students in the Public Health Major.
 Structural, operational, leadership and components of health policy and public health administration. Community health assessment, advocacy and evaluation within public health agencies and programs. Major business systems used for administration of public health agencies and programs.
- 805 Social and Behavioral Aspects of Public Health**
 Spring, 3(3-0) RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Open to master's students in the Public Health major or in the Public Health Specialization.
 Concepts and methods of social and behavioral sciences applied to public health problems and issues.
- 806 Environmental Factors of Health**
 Spring, 3(3-0) RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Open to master's students in the Public Health major or in the Public Health Specialization.
 Biological, physical and chemical factors that affect health of populations. Regulatory approaches to environmental hazards. Potential impact of environmental agents on health and preventive management approaches.
- 807 Practical Application and Critical Thinking in Public Health**
 Fall, Spring, Summer, 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health Major or approval of college.
 Critical thinking, reading skills, explanations, problem solving, and decision making in public health using case studies. Questioning assumptions, identifying bias, determining causality, and application of the scientific method. Reporting guidelines and systematic literature reviews.
- 808 Public Health Surveillance**
 Summer of odd years, 3(3-0) RB: Academic or professional background in public health, epidemiology and/or public health related discipline. R: Open to students in the Public Health major or approval of college.
 Introduction, history, and design of national, state and local public health surveillance systems for communicable diseases, chronic diseases, birth defects, injury, and disasters. Use of surveillance data sources.
- 819 American Healthcare Delivery: A Systems Approach**
 Summer of odd years, 3(3-0) RB: Graduate students or professionals with public health, medical, law, policy background R: Open to students in the Public Health Major or approval of college.
 Evolution of United States healthcare system. The Affordable Care Act (ACA). Overview of funding and costs of healthcare delivery. Effect of ACA on future healthcare delivery and health professions.
- 825 Transition to Graduate Academic Writing**
 Fall, Spring, Summer, 1(1-0) RB: completion of Tier 2 writing assignment or undergraduate degree R: Open to students in the Public Health Major and open to juniors or seniors or graduate students or approval of college.
 Identify and analyze scholarly articles and published research studies to develop effective writing skills within the genre of academic writing and scholarship.
- 827 Principles of Public Health Leadership**
 Fall, Spring, Summer, 1(1-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health Major or approval of college.
 Context, competencies and core leadership skills. Theories and research in public health and related organizations. Best practices, leadership styles, professional identity. Future leadership challenges.
- 828 Community Engagement in Public Health Practice**
 Fall, Spring, Summer, 3(3-0) R: Open to graduate students in the Public Health Major.
 Methods, ethics, and issues in community engaged practice and scholarship.
- 830 Practical Applications of Public Health Law**
 Fall of odd years, 3(3-0) P: HM 801 RB: Academic or professional background in public health or public health related discipline. R: Open to students in the Public Health major or approval of college.
 Overview of legal basis of public health authority. Use of law to direct public health practice.

HM—Human Medicine

- 831 Communicable Disease in Public Health**
Fall of even years. 3(3-0) P: HM 801 and HM 803 RB: Academic or professional background in public health or public health related discipline. Undergraduate level math or statistics course work. R: Open to students in the Public Health major or approval of college.
Fundamentals of communicable disease transmission. Overview of methods for prevention and control of communicable disease. Agents and organisms of public health significance.
- 832 Global Public Health**
Spring of even years. 3(3-0) RB: Academic or professional background in public health or public health related discipline. Undergraduate level math or statistics course work. R: Open to students in the Public Health major or approval of college.
Factors and dynamics that affect global public health. Application of public health principles and policies in international settings. Key international stakeholders and their roles in global public health.
- 833 Introduction to Pharmaceutical Counterfeiting and Public Health**
Fall of odd years. 3(3-0) P: HM 801 RB: Academic or professional background in public health or public health related discipline. R: Open to students in the Public Health major or approval of college.
General principles of counterfeiting, counterfeit pharmaceuticals, and how it affects public health. Scope, policy, supply chain management, and health effects are examined using current case examples.
- 835 Independent Study in Public Health**
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to students in the Public Health major or approval of college.
Independent study in areas relevant to public health.
- 836 Comparative Global Healthcare Systems**
Spring. 3(3-0) RB: Undergraduate degree in science or applied science with experience in a healthcare clinical setting. R: Open to students in the Public Health major or approval of college.
Public health and culture, environment, psychosocial and economic issues. Healthcare systems and health policies. Community health assessments.
- 837 Poverty and Public Health**
Fall of even years. 3(3-0) P: HM 801 RB: Academic or professional background in public health or public health related discipline. Undergraduate level math or statistics course work. R: Open to students in the Public Health major or approval of college.
Concepts of health and poverty and their interrelatedness from a global and public health perspective. Roles of international agencies, national policy, gender, socioeconomic status, race, ethnicity, culture, access to resources, and conflict. Role of public health programs in the achievement and maintenance of healthy populations. Struggle to eliminate poverty.
- 838 Cultural Aspects of Public Health Practice**
Fall. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, undergraduate level math or statistics coursework R: Open to students in the Public Health major or approval of college.
Cultural concepts that shape health and illness. Major issues and trends in global health. Cultural and socioeconomic factors related to work with diverse populations. Applications for public health practice.
- 839 Water and Public Health: A Global Perspective**
Spring of odd years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or in the Public Health Specialization or approval of college.
Role of water in public health, focusing on the global crisis of water quantity and quality. Specific water "hot spots" primarily the Middle East, Africa, Asia, the Western and Southern U.S., and Mexico.
- 840 Public Health Finance**
Spring of odd years. 3(3-0) RB: Academic or professional background in public health or public health related discipline, experience with databases. R: Open to students in the Public Health major or approval of college.
Issues surrounding financial administration of health service organizations. Pragmatic side of healthcare finance, incorporating healthcare economics.
- 841 Public Health Policy**
Fall. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or in the Public Health Specialization or approval of college.
U.S. healthcare delivery and financing systems and their contributions to improving health status.
- 842 Introduction to Public Health Informatics**
Fall of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, experience with databases R: Open to students in the Public Health major or approval of college.
Survey of information technology applications in the public health domain, functions and tools used to generate public health knowledge. Disease surveillance platforms and web-based public health education, ethical and legal issues surrounding data exchange.
- 845 Informatics and Information Technology**
Spring of odd years. 3(3-0) P: HM 842 and HM 843 RB: Academic or professional background in public health and/or public health related discipline, experience with databases R: Open to students in the Public Health major or approval of college.
Information technology for health informatics systems, principles of relational database systems, operations, information systems, data sets, data standards and classification systems.
- 847 Public Health in Ghana: A One Health Perspective**
Summer. 5(5-0) Summer: Abroad. Interdepartmental with Osteopathic Medicine. Administered by Human Medicine. RB: Academic or professional background in public health and/or public health related discipline; undergraduate level health-related discipline R: Approval of college; application required.
Major public health issues in Ghana from a One Health perspective; interface between Western and traditional health care beliefs and practices in Ghana; community engagement experience employing participatory research methods with emphasis on social justice and ethical conduct of research.
- 852 Outbreak Investigations in Public Health**
Spring of odd years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, experience with databases R: Open to students in the Public Health major or approval of college.
Process for conducting public health outbreak investigations including the role of local, state, federal and international agencies. Legal, political, media and law enforcement issues.
- 853 Public Health Program/Intervention Evaluation**
Fall of even years. 3(3-0) P: HM 801 RB: Academic or professional background in public health and/or public health related discipline R: Open to graduate students in the Public Health major or approval of college.
Introduce public health program evaluation methods/tools. Causal inference criteria, standard evaluation guides, procedural and outcome evaluation methods and needs assessment and performance monitoring methods. Integrates epidemiology, biostatistics and public health knowledge pertaining to program evaluation.
- 854 Health Equity Framework For Public Health Practice**
Spring of odd years. 3(3-0) RB: Academic or professional background in Public Health and or public health related discipline R: Open to students in the Public Health major or in the Public Health Specialization or approval of college.
Social justice and health equity framework for the practice of public health with analysis of persistent health disparity across race, class, gender, and other forms of difference.
- 860 Migrant, Refugee and Mobile Populations: Impact on Public Health**
Fall of odd years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, experience with databases R: Open to students in the Public Health major or approval of college.
Core public health issues prevalent and sometimes elusive in immigrant, refugee and mobile populations. Historical context, health care delivery, access and other barriers to preventive care, social justice, cultural competence, health policy, program challenges, measurement and data assimilation.

- 861 Introduction to Public Health Nutrition**
Spring of odd years. 3(3-0) RB: Academic or professional background in public health or public health related discipline, experience with databases R: Open to students in the Public Health major or approval of college.
Biological principles of nutrition and physical activity with public health focus. Nutritional issues in specific populations. Introduction to malnutrition, current issues in nutrition, role of nutrition in chronic diseases, and nutrition policy and intervention programs.
- 862 Global Pandemics and Public Health Systems, Law, and Community Impacts**
Fall, Spring. 3(3-0) R: Open to students in the Public Health Major and open to juniors or seniors or graduate students or approval of college.
Public health systems and response to pandemics including public health law and ethics, disease transmission, testing and treatment, and social and community context.
- 863 Parasitic Diseases and Public Health in Developing Countries**
Spring of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, knowledge of parasitology R: Open to students in the Public Health major or approval of college.
Nature, impact and control of parasitic diseases in developing countries.
- 864 Intersections of Human and Animal Health**
Summer of odd years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, experience with databases R: Open to graduate students in the Public Health major or approval of college.
Epidemiology and preventive medicine disease control methods for the control of infectious diseases and environmental health issues shared by animals and people.
- 865 Vitamins and Minerals: Risks to Public Health**
Spring of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Introduction to public health issues in vitamin and mineral nutrition, including biological roles, human requirements, and consequences of deficiency and excesses. Current issues regarding specific micronutrient status in U.S. and worldwide. Current and proposed population-based interventions.
- 868 Integrated Research Study Design and Informatics**
Fall of odd years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline, nursing or allied health R: Open to students in the Public Health major or approval of college.
Introduction to clinical trial phases, research design, informatics aims, informatics platforms and datum lifecycle.
- 871 Vaccine Preventable Diseases of Public Health Importance**
Spring of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Vaccine-preventable diseases of importance to the public health and the global community. Basic epidemiology, surveillance, vaccine updates, status of the vaccination programs, associated cost, benefits, and related public health policies. Current controversies associated with national and international disease control, elimination, and eradication campaigns.
- 872 Global Public Health in Action**
Summer of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline. Basic knowledge of public health issues and epidemiology are essential R: Open to students in the Public Health major or approval of college.
Qualitative research methods and analysis using case studies in national and international public health. Development of a case study.
- 873 Maternal and Child Health: A Global Public Health Perspective**
Spring of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Introduction to historical and cultural foundations of maternal and child global public health. Health care needs, health determinants and disparities, programs, policies and public health issues affecting women and children.
- 876 Nutrition and Chronic Diseases: Living Longer and Healthier**
Summer of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Role of nutrition and physical activity in chronic diseases with emphasis on macronutrients. Relationship between obesity and health and socioeconomic disparities in the United States and current policies. Overview of nutrition transition and impact on developing nations.
- 877 Public Health Nutrition and the Life Stages**
Fall of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Effect of nutrition on growth and development. Role of public health interventions throughout life. Emphasis on at-risk populations in the United States and worldwide. Survey of current programs addressing specific public health nutrition concerns.
- 878 Applied Biostatistics for Public Health Practitioners**
Fall of even years, Spring. 3(3-0) P: HM 802 RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health Major or in the Public Health Graduate Certificate.
Intermediate techniques and applications of multi-variable logistic and linear regression in public health. Interpretation of statistical models.
- 880 Study Design and Research Methods for Public Health Practice**
Fall, Spring, Summer. 3(3-0) P: HM 802 and HM 803 RB: Academic or professional background in public health and/or public health related discipline, experience with databases R: Open to students in the Public Health Major or approval of college. Not open to students with credit in VM 830.
Examination of empirical and logical basis of public health research. Identification of research questions, study design, data collection and qualitative and quantitative approaches. Reporting of findings. Proposal writing. Ethical considerations in research.
- 881 Pathogenesis of Parasitic Infections Important to Public Health**
Summer. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Specific causes and progression of major parasitic diseases important to global public health; diverse aspects of the host's responses to the invasion by these organisms; protective and pathogenic immune responses; development of clinical disease; role of chemotherapy development of clinical disease; effects of chemotherapeutic agents; epidemiological discussion of the importance of quantification of the pathology and clinical disease seen in populations.
- 882 Public Health Nutrition: Assessment and Development of Population-Based Interventions**
Fall of even years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Assessment of nutritional and physical activity on a population level. Identification of at-risk populations. Collection, interpretation and application of data for developing interventions and evaluating behavior change and health outcomes. Role of public health and national nutrition institutions.
- 885 Health Information Technology and Telehealth Technologies as Applied to Public Health**
Summer of odd years. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline with an interest in new technologies and strategic planning and problem solving in public health. R: Open to students in the Public Health major or approval of college.
Introduction to health information technology and health information systems in healthcare and public health industries. Telehealth, eHealth, and mobile technologies for health (mHealth).
- 886 Public Health Diagnosis and Interpretation of Parasitic Infections**
Fall of even years. 3(3-0) P: HM 863 RB: Academic or professional background in public health and/or public health related discipline, knowledge of parasitology. R: Open to students in the Public Health major or approval of college.
Current approaches in the detection, measurement and field interpretation of parasitic infections at the individual level and community level.

HM—Human Medicine

- 887 Control and Eradication of Parasitic Infections of Public Health Importance**
Spring of odd years. 3(3-0) P: HM 863 RB: Academic or professional background in public health and/or public health related discipline, knowledge of parasitology R: Open to students in the Public Health major or approval of college.
Control programs, elimination/eradication of parasitic diseases of public health importance in developing countries.
- 889 Applied Epidemiologic Methods for Public Health Practitioners**
Fall of even years. 3(3-0) Interdepartmental with Epidemiology. Administered by Human Medicine. P: HM 802 and HM 803 RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health major or approval of college.
Identification and conceptualization of public health problems. Generation of testable hypotheses and appropriate data sets. Interpretation of appropriate measures of associations. Evaluation of validity and generalizability of results and ethical issues surrounding the use of humans in epidemiological research. Real case studies are used to analyze study design including the role of chance, bias, misclassification, effect measure modification, interaction, and missing data.
- 890 Independent Study in Bioethics**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to master's students in the Bioethics, Humanities, and Society major. Approval of department.
Special projects, directed readings, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.
- 891 Introduction to Public Health Practicum**
Fall, Spring, Summer. 1(1-0) P: HM 801 RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Approval of college.
Preparatory work for practicum placement. Special projects arranged by an individual student and faculty member in areas supporting practicum placement.
- 892 Public Health Applied Practice Experience**
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: HM 801 and HM 891 RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Approval of college.
Professional practicum.
- 893 Public Health Integrative Learning Experience**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. P: HM 801 and HM 891 and HM 892 RB: Academic or professional background in public health and/or public health related discipline, undergraduate level math or statistics course-work R: Approval of college.
Capstone experience.
- 894 Practicum in Bioethics**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: HM 820 R: Open to master's students in the Bioethics, Humanities, and Society major. Approval of department.
Observations, participation, and study of ethical and policy issues in selected health, research, or governmental settings.
- 895 Clinical Medicine Capstone Experience**
Fall, Spring, Summer. 3 to 6 credits. P: HM 552 and HM 553 and HM 554 and HM 555 and HM 556 R: Open to students in the College of Human Medicine.
Preparation and presentation of student's capstone project.
- 899 Master's Thesis Research**
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
Master's thesis research.