# Health and Medical Sciences Program

The Health and Medical Sciences program is a five-year program leading to a Master of Science degree in Health and Medical Sciences from UC Berkeley and a MD from UCSF. The program's mission is to produce academic and community leaders in American medicine through early exposure to public health disciplines, medical humanities, bioethics, and social and behavioral sciences. Berkeley awards the master's degree upon successful completion of the first three years of work and UCSF awards the medical degree after successful completion of the fourth and fifth years. The master's program is coordinated with both a clinical skills curriculum and a case-based pre-clerkship science curriculum during the first three years. The master's curriculum requires a minimum of 20 additional units of academic coursework as well as the researching and writing of a thesis. Students are expected to acquire mastery of the preclerkship sciences and scholarly expertise in a selected area of interest related to health.

Students selected for this program meet the rigorous academic requirements for entrance into both medical school and graduate school. The selection process screens for students who have a strong interest in determinants of human health and disease beyond the purely medical and who seek a collaborative small-group process for learning.

# Admission to the University

#### Uniform minimum requirements for admission

The following minimum requirements apply to all programs and will be verified by the Graduate Division:

- 1. A bachelor's degree or recognized equivalent from an accredited institution;
- 2. A minimum grade-point average of B or better (3.0);
- 3. If the applicant comes from a country or political entity (e.g. Quebec) where English is not the official language, adequate proficiency in English to do graduate work, as evidenced by a TOEFL score of at least 570 on the paper-and-pencil test, 230 on the computer-based test, 90 on the iBT test, or an IELTS Band score of at least 7 (note that individual programs may set higher levels for any of these); and
- 4. Enough undergraduate training to do graduate work in the given field.

## Applicants who already hold a graduate degree

The Graduate Council views academic degrees as evidence of broad research training, not as vocational training certificates; therefore, applicants who already have academic graduate degrees should be able to take up new subject matter on a serious level without undertaking a graduate program, unless the fields are completely dissimilar.

Programs may consider students for an additional academic master's or professional master's degree if the additional degree is in a distinctly different field.

Applicants admitted to a doctoral program that requires a master's degree to be earned at Berkeley as a prerequisite (even though the applicant already has a master's degree from another institution in the same or a closely allied field of study) will be permitted to undertake the second master's degree, despite the overlap in field.

The Graduate Division will admit students for a second doctoral degree only if they meet the following guidelines:

- Applicants with doctoral degrees may be admitted for an additional doctoral degree only if that degree program is in a general area of knowledge distinctly different from the field in which they earned their original degree. For example, a physics PhD could be admitted to a doctoral degree program in music or history; however, a student with a doctoral degree in mathematics would not be permitted to add a PhD in statistics.
- Applicants who hold the PhD degree may be admitted to a professional doctorate or professional master's degree program if there is no duplication of training involved.

Applicants may only apply to one single degree program or one concurrent degree program per admission cycle.

Any applicant who was previously registered at Berkeley as a graduate student, no matter how briefly, must apply for readmission, not admission, even if the new application is to a different program.

#### **Required documents for admissions applications**

1. **Transcripts:** Upload unofficial transcripts with the application for the departmental initial review. Official transcripts of all college-level work will be required **if admitted**. Official transcripts must be in sealed envelopes as issued by the school(s) you have attended. Request a current transcript from every post-secondary school that you have attended, including community colleges, summer sessions, and extension programs.

If you have attended Berkeley, upload unofficial transcript with the application for the departmental initial review. Official transcript with evidence of degree conferral *will not* be required if admitted.

- 2. Letters of recommendation: Applicants can request online letters of recommendation through the online application system. Hard copies of recommendation letters must be sent directly to the program, not the Graduate Division.
- 3. Evidence of English language proficiency: All applicants from countries in which the official language is not English are required to submit official evidence of English language proficiency. This requirement applies to applicants from Bangladesh, Burma, Nepal, India, Pakistan, Latin America, the Middle East, the People's Republic of China, Taiwan, Japan, Korea, Southeast Asia, and most European countries. However, applicants who, at the time of application, have already completed at least one year of full-time academic course work with grades of B or better at a U.S. university may submit an official transcript from the U.S. university to fulfill this requirement. The following courses will not fulfill this requirement: 1) courses in English as a Second Language, 2) courses conducted in a language other than English, 3) courses that will be completed after the application is submitted, and 4) courses of a non-academic nature. If applicants have previously been denied admission to Berkeley on the basis of their English language proficiency, they must submit new test scores that meet the current minimum from one of the standardized tests.

### Admission to the Program

Applicants to the UC Berkeley-UCSF Joint Medical Program must be eligible for admission to the University in graduate standing, with an

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undergraduate upper division grade point average (GPA) of at least 3.0, and a bachelor's degree from an accredited college or university. They must have fulfilled the standard premedical requirements and have taken the Medical College Admission Test (instead of the GRE) within three years of application. Initial application is via AMCAS, and admission is coordinated with the School of Medicine at UCSF.

# Unit requirements: 20 semester units

20 semester units must be offered for the Master's degree. 8 of the units must be HMS Master's program units.

## Curriculum

HMEDSCI 261	Research Seminar (3 semesters)	1-2
PB HLTH 250A	Epidemiologic Methods I	3
HMEDSCI 298	Directed Group Study (4 semesters)	1-5
Graduate Elective in research methods, approved by thesis advisor		

Graduate Elective in content area of research

# CITI Protocol

# Capstone/Thesis (plan I)

MS thesis based upon research project. Theses are directed by a thesis committee consisting of at least three faculty members.

# Health and Medical Sciences Program

HMEDSCI 200A Contextual Integrated Case-Based Curriculum 10 Units The six semester sequence (200A-200F) introducing principles of the medical basic science, health policy, public health, and clinical aspects of medicine taught in a contextual-integrated case-based format. The sequence includes curriculum in biochemistry, histology, microbiology, immunology, neuroanatomy, pathology, physiology, pharmacology, and clinical sciences.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Science Joint Medical Program

#### Hours & Format

Fall and/or spring: 15 weeks - 10.5 hours of seminar per week

#### **Additional Details**

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

HMEDSCI 200B Contextual Integrated Case-Based Curriculum 10 Units The six semester sequence (200A-200F) introducing principles of the medical basic science, health policy, public health, and clinical aspects of medicine taught in a contextual-integrated case-based format. The sequence includes curriculum in biochemistry, histology, microbiology, immunology, neuroanatomy, pathology, physiology, pharmacology, and clinical sciences.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Science Joint Medical Program

Hours & Format

Fall and/or spring: 15 weeks - 10.5 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

#### Grading: Letter grade.

HMEDSCI 200C Contextual Integrated Case-Based Curriculum 10 Units The six semester sequence (200A-200F) introducing principles of the medical basic science, health policy, public health, and clinical aspects of medicine taught in a contextual-integrated case-based format. The sequence includes curriculum in biochemistry, histology, microbiology, immunology, neuroanatomy, pathology, physiology, pharmacology, and clinical sciences.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Science Joint Medical Program

#### Hours & Format

Fall and/or spring: 15 weeks - 10.5 hours of seminar per week

#### **Additional Details**

Subject/Course Level: Health and Medical Sciences/Graduate

#### Grading: Letter grade.

HMEDSCI 200D Contextual Integrated Case-Based Curriculum 10 Units The six semester sequence (200A-200F) introducing principles of the medical basic science, health policy, public health, and clinical aspects of medicine taught in a contextual-integrated case-based format. The sequence includes curriculum in biochemistry, histology, microbiology, immunology, neuroanatomy, pathology, physiology, pharmacology, and clinical sciences.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Science Joint Medical Program

Hours & Format

Fall and/or spring: 15 weeks - 10.5 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

HMEDSCI 200E Contextual Integrated Case-Based Curriculum 10 Units The six semester sequence (200A-200F) introducing principles of the medical basic science, health policy, public health, and clinical aspects of medicine taught in a contextual-integrated case-based format. The sequence includes curriculum in biochemistry, histology, microbiology, immunology, neuroanatomy, pathology, physiology, pharmacology, and clinical sciences.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Science Joint Medical Program

#### Hours & Format

Fall and/or spring: 15 weeks - 10.5 hours of seminar per week

#### **Additional Details**

Subject/Course Level: Health and Medical Sciences/Graduate

#### Grading: Letter grade.

HMEDSCI 200F Contextual Integrated Case-Based Curriculum 7 Units The six semester sequence (200A-200F) introducing principles of the medical basic science, health policy, public health, and clinical aspects of medicine taught in a contextual-integrated case-based format. The sequence includes curriculum in biochemistry, histology, microbiology, immunology, neuroanatomy, pathology, physiology, pharmacology, and clinical sciences.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Science Joint Medical Program

Hours & Format

Fall and/or spring: 15 weeks - 10.5 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

# HMEDSCI 201 Systemic and Regional Human Anatomy and Development 8 Units

Regional and functional human anatomy and development (embryology) will be taught through lecture, laboratory, and problem-based exercises in a fashion that requires learning traditional anatomy and the use of anatomical reasoning in the context of clinical problem solving. The understanding of regional anatomy will be taught by prosection demonstration and dissection strengthened by teaching basic interpretation of medical imaging. Computer programs will be used to supplement all elements of the course. To increase clinical competence, the surface anatomy that is essential to physical examination will be taught. Students will learn the skills of professional communication by presenting patients and explaining the anatomical basis of the patient problem. Small group process is used to practice interactional and explicative skills.

#### **Rules & Requirements**

Prerequisites: Consent of instructor

#### Hours & Format

Summer: 8 weeks - 11 hours of lecture and 11 hours of laboratory per week

#### **Additional Details**

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Patterson

HMEDSCI 202A Clinical Skills 1 2 Units

The first course in a six-semester sequence introducing first-year medical students to the skills necessary to obtain a complete medical history, to manage successfully the dynamics of the doctor-patient interaction, and to master interpersonal communication skills required of doctors in a clinical setting.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Sciences Joint Medical Program

Hours & Format

Fall and/or spring: 15 weeks - 2 hours of seminar per week

#### **Additional Details**

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Micco

#### HMEDSCI 202B Clinical Skills 2 2 Units

Students learn the cardiovascular, pulmonary, eye, and gastrointestinal exam and practice a complete medical history and physical exam with their preceptor. The dynamics of the physician-patient relationship are discussed on an ongoing basis with both the preceptor and the faculty instructor. Each student is required to turn in at least five patient write-ups per term.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Sciences Joint Medical Program and completion of all requirements of Health and Medical Sciences 202A

#### Hours & Format

Fall and/or spring: 8 weeks - 3 hours of lecture per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Micco

#### HMEDSCI 202C Clinical Skills 3 2 Units

Students learn the neurologic, musculo-skeletal, ear, nose, throat, thyroid, and skin exam and practice the medical history and physical exam with their preceptor. The dynamics of the physician-patient relationship are discussed on an ongoing basis. Each student is required to turn in at least five patient write-ups per term.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Sciences Joint Medical Program and completion of all requirements of Health and Medical Sciences 202A and 202B

#### Hours & Format

Fall and/or spring: 8 weeks - 3 hours of lecture per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructors: Stevens, Swartzberg

#### HMEDSCI 202D Clinical Skills 4 2 Units

Students learn the male genito-urinary exam and practice the complete medical history and physical exam with their preceptor. The dynamics of the physician-patient relationship are discussed on an ongoing basis. Each student is required to turn in at least five patient write-ups per term. **Rules & Requirements** 

**Prerequisites:** Graduate standing in Health and Medical Sciences Joint Medical Program and completion of all requirements of Health and Medical Sciences 202C

Hours & Format

Fall and/or spring: 12 weeks - 3 hours of lecture per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Stevens Swartzberg

#### HMEDSCI 202E Clinical Skills 5 2 Units

Students learn the gynecologic exam and practice the complete medical history and physical exam with their preceptor. The dynamics of the physician-patient relationship are discussed on an ongoing basis. Each student is required to turn in at least five patient write-ups per term. **Rules & Requirements** 

**Prerequisites:** Graduate standing in Health and Medical Sciences Joint Medical Program and completion of all requirements of Health and Medical Sciences 202C and 202D

Hours & Format

Fall and/or spring: 12 weeks - 3 hours of lecture per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructors: Stevens, Swartzberg

#### HMEDSCI 202F Clinical Skills 6 1 Unit

Under supervision, students perform a complete history and physical exam on hospitalized or clinic patients five times during the semester. They present the patients in written and verbal format to the instructor and class. These presentations are critiqued and the tools to effectively present cases are taught. The course runs for the first half of the student's last semester in the program. Each student is required to turn in three patient write-ups.

#### **Rules & Requirements**

Prerequisites: Graduate standing in HMS Joint Medical Program

**Hours & Format** 

Fall and/or spring: 8 weeks - 3 hours of lecture per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructors: Stevens, Swartzberg

HMEDSCI 203 Introduction to Clinical Radiology/Anatomy Correlates 1 Unit

An introduction for medical students to the study of radiology and the examination of healthy and diseased organs by imaging techniques, correlated with the Gross Anatomy and Anatomy of Human Development courses. Areas that will be covered include introduction to the major organ systems through the use of radiographs.

**Rules & Requirements** 

**Prerequisites:** Graduate standing in HMS Joint Medical Program; must be taken concurrently with 201 and 202

Hours & Format

Summer: 8 weeks - 0 hours of lecture per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Price

#### HMEDSCI 211 Narrative and Medicine 1 Unit

This course's goal is to provide a method for medical students to think, write about, and discuss feelings engendered by clinical encounters. Medical students are taught the need to be emotionally detached from patients, yet being emotionally detached does not mean devoid of emotion. This course offers a means to express and analyze those feelings. Also considered is the value of regarding the medical history as "text" which can be written and read from differing, equally valid viewpoints.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in health and medical sciences or consent of instructor

**Repeat rules:** Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 1 hour of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Micco

HMEDSCI 261 Research Seminar 1 - 2 Units

A seminar to help Joint Medical Program students acquire skills necessary to define a research question, find appropriate mentorship, and design a research project. Summer course introduces research design, methods, and expectations for M.S. research in Health and Medical Sciences. Fall and spring semesters address topics in research; student progress toward M.S. thesis is reviewed and critiqued. Development of research plan, protocol design and implementation, and research findings will be reviewed. Each student takes this course three times in the first year.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Sciences UCB-UCSF Joint Medical Program

Repeat rules: Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 2 hours of seminar per week

Summer: 8 weeks - 2 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

HMEDSCI 262 Qualitative Analysis Thesis Working Group 2 Units The Qualitative Analysis TWG provides JMP students a supportive small group student-centered environment in which to discuss their qualitative research with other students engaged in qualitative research towards the goal of the successful completion of the required JMP MS. **Objectives & Outcomes** 

**Course Objectives:** To develop specific skills in qualitative research design, data collection, analysis, presentation and publication, areas of emphasis will include: 1) grounded theory research and analysis and 2) cultural research and analysis

To give students a supportive environment in which to discuss their research with students and faculty who are engaged in similar research. To give students the opportunity to provide peer advising to their classmates regarding their research projects.

To provide students with individual mentoring by TWG leaders during outside sessions planned between faculty and students

To support students in developing skills in working with a mentor, developing a research design, obtaining IRB approval, collecting and analyzing data, managing a research project, presenting findings as posters or oral presentations, and drafting a master's thesis and/or publication

#### **Rules & Requirements**

**Prerequisites:** 2nd year students-HMS 261 completed with no incompletes<BR/>3rd year students-prior HMS 262 completed with no incompletes

Repeat rules: Course may be repeated a maximum of 4 times.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Eyre

HMEDSCI 264 Mixed Methods/Community-Based Research Thesis Working Group 2 Units

The Mixed Methods/Community-based Research TWG provides JMP students a supportive small group student-centered environment in which to discuss their research with other students engaged or interested in mixed methods/community-based research projects towards the goal of the successful completion of the required JMP MS. **Objectives & Outcomes** 

**Course Objectives:** To develop specific skills in mixed methods research and community-based research design, planning and implementation, data collection, analysis, presentation and publication. To give students a supportive environment in which to discuss their research with students and faculty who are engaged in similar research To give students the opportunity to provide peer advising to their classmates regarding their research projects.

To provide students with individual mentoring by TWG leaders during outside sessions planned between faculty and students

To support students in developing skills in working with a mentor, developing a research design, obtaining IRB approval, collecting and analyzing data, managing a research project, presenting findings as posters or oral presentations, and drafting a master's thesis and/or publication

#### **Rules & Requirements**

**Prerequisites:** 2nd year students-HMS 261 completed with no incompletes<BR/>3rd year students-prior HMS 264 completed with no incompletes

Repeat rules: Course may be repeated a maximum of 4 times.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Ivey

HMEDSCI 265 Epidemiology/Reproductive Health/Evaluation Research Thesis Working Group 2 Units

The Epidemiology/Reproductive Health/ Evaluation TWG provides JMP students a supportive small group student-centered environment in which to discuss their research with other students engaged in Epidemiology/ Reproductive Health/ Evaluation projects towards the goal of the successful completion of the required JMP MS.

**Objectives & Outcomes** 

**Course Objectives:** To develop specific skills in Epidemiology/ Reproductive Health/ Evaluation research design, planning and implementation, data collection, analysis, presentation and publication. To give students a supportive environment in which to discuss their research with students and faculty who are engaged in similar research. To give students the opportunity to provide peer advising to their classmates regarding their research projects.

To provide students with individual mentoring by TWG leaders during outside sessions planned between faculty and students

To support students in developing skills in working with a mentor, developing a research design, obtaining IRB approval, collecting and analyzing data, managing a research project, presenting findings as posters or oral presentations, presenting research to the community, and drafting a master's thesis and/or publication

#### **Rules & Requirements**

**Prerequisites:** 2nd year students-HMS 261 completed with no incompletes<BR/>3rd year students-prior HMS 265 completed with no incompletes

Repeat rules: Course may be repeated a maximum of 4 times.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Prata

HMEDSCI 266 Clinical Medicine/Bench Research/Clinical Epi/Behavioral Thesis Working Group 2 Units

The Clinical Medicine/Bench Research/Clinical Epi/Behavioral TWG provides JMP students a supportive small group student-centered environment in which to discuss their Clinical Medicine/Bench Research/ Clinical Epi/Behavioral projects towards the goal of the successful completion of the required JMP MS.

**Objectives & Outcomes** 

**Course Objectives:** To develop specific skills in Clinical Medicine/Bench Research/Clinical Epi/Behavioral TWG research design, planning and implementation, data collection, analysis, presentation and publication. To give students a supportive environment in which to discuss their research with students and faculty who are engaged in similar research. To give students the opportunity to provide peer advising to their classmates regarding their research projects.

To provide students with individual mentoring by TWG leaders during outside sessions planned between faculty and students, To support students in developing skills in working with a mentor,

developing a research design, obtaining IRB approval, collecting and analyzing data, managing a research project, presenting findings as posters or oral presentations, and drafting a master's thesis and/or publication

#### **Rules & Requirements**

**Prerequisites:** 2nd year students-HMS 261 completed with no incompletes<BR/>3rd year students-prior HMS 266 completed with no incompletes

Repeat rules: Course may be repeated a maximum of 4 times.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Madsen

HMEDSCI 267 Bioethics, Medical Humanities, or Archival Thesis Working Group 2 Units

The Bioethics, Medical Humanities TWG provides JMP students a supportive small group student-centered environment in which to discuss their research with other students engaged in Bioethics, Medical Humanities projects towards the goal of the successful completion of the required JMP MS.

#### **Objectives & Outcomes**

**Course Objectives:** To develop specific skills in Bioethics, Medical Humanities research design, planning and implementation, data collection, analysis, presentation and publication..

To give students a supportive environment in which to discuss their research with students and faculty who are engaged in similar research. To give students the opportunity to provide peer advising to their classmates regarding their research projects.

To provide students with individual mentoring by TWG leaders during outside sessions planned between faculty and students

To support students in developing skills in working with a mentor, developing a research design, obtaining IRB approval, collecting and analyzing data, managing a research project, presenting findings as posters or oral presentations, presenting research to the community, and drafting a master's thesis and/or publication

#### **Rules & Requirements**

**Prerequisites:** 2nd year students-HMS 261 completed with no incompletes<BR/>3rd year students-prior HMS 267 completed with no incompletes

Repeat rules: Course may be repeated a maximum of 4 times.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

**Additional Details** 

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.

Instructor: Halpern

HMEDSCI 296 Special Study 1 - 10 Units Designed to permit qualified graduate students to pursue special study under the direction of a faculty member. **Rules & Requirements** 

#### Prerequisites: Graduate standing

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 0 hours of independent study per week

Additional Details

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

HMEDSCI 298 Directed Group Study 1 - 5 Units Group study for graduate students. Intensive examination of healthrelated topics.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in Health and Medical Sciences Program or consent of instructor

#### Hours & Format

Fall and/or spring: 15 weeks - 1-5 hours of independent study per week

#### Summer:

6 weeks - 2.5-12.5 hours of independent study per week 8 weeks - 1.5-7.5 hours of independent study per week 10 weeks - 1.5-4 hours of independent study per week

#### **Additional Details**

Subject/Course Level: Health and Medical Sciences/Graduate

**Grading:** The grading option will be decided by the instructor when the class is offered.

HMEDSCI 299 Independent Study and Research in Health and Medical Sciences 1 - 12 Units

Independent study, research, and writing in an area related to program of study, sponsored by an approved faculty member and approved by program adviser.

#### **Rules & Requirements**

**Prerequisites:** Graduate standing in HMS Program or consent of sponsoring HMS faculty member

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

#### Hours & Format

Fall and/or spring: 15 weeks - 1-12 hours of independent study per week

#### Summer:

6 weeks - 2.5-30 hours of independent study per week 8 weeks - 1.5-22.5 hours of independent study per week

#### Additional Details

Subject/Course Level: Health and Medical Sciences/Graduate

Grading: Letter grade.