

# Addendum: Degree Plans

Effective Date May 30, 2017

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## Doctor of Medicine (MD) Program Degree Plan

Total required for graduation: 249.5 QH

### Year 1:

HMTD 515 Foundations for Interprofessional Practice (2QH)  
MBCH 502 Clinical Molecular Cell Biology (3.5QH)  
MBCH 505 Biochemistry (6QH)  
MBCH 508 Clinical Genetics (2QH)  
MCBA 500 Clinical Anatomy (10QH)  
MCBA 502 Histology (5QH)  
MCBA 504 Embryology (3QH)  
MCUR 502 Essentials of Clinical Reasoning (6QH)  
MMTD 509 Epidemiology (2QH)  
MMTD 510 Bioethics (2QH)  
MNSC 501 Medical Neuroscience (7.5QH)  
MOSA 500 Clinical Reflections I (1QH)  
MPHY 500 Physiology (14QH)

### Year 2:

MCMP 600 Foundations of Medical Pharmacology (9.5QH)  
MCUR 602 Essentials of Clinical Reasoning (6QH)  
MCUR 606 Clinical Skills (3QH)  
MMIC 600 Microbiology & Immunology (13QH)  
MMTD 601 Patient Safety (2QH)  
MOSA 600 Clinical Reflections II (1QH)  
MPAT 600 General & Systemic Pathology (12.5QH)  
MPSY 601 Clinical Neuroscience (7.5QH)  
Electives (3QH)

### Year 3:

MFPM 701 Family Medicine/Primary Care Clerkship (9QH)  
MMED 700 Medicine Clerkship (12QH)  
MNEU 700 Neurology Clerkship (6QH)  
MOBG 700 Obstetrics/Gynecology Clerkship (9QH)  
MOSA 700 Clinical Reflections III (1QH)  
MPED 700 Pediatrics Clerkship (9QH)  
MPSY 700 Psychiatry Clerkship (9QH)  
MSUR 700 Surgery Clerkship (12QH)

Electives: 4-weeks (6QH)

Year 4:

MOSA 805 Clinical Reflections IV (1QH)

Take one of the following 4-week Sub-Internships (6QH):

MMED 800 Internal Medicine Sub-Internship

MFPM 805 Family Medicine Sub-Internship

MPED 805 Pediatrics Sub-Internship

MEMG 800 Emergency Medicine Sub-Internship

32-weeks Electives (48QH):

12 weeks minimum intramural CMS electives

20 weeks maximum extramural

8 weeks maximum non-clinical

12 weeks maximum in any single specialty (except medicine or pediatrics)

Must Pass Objective Structured Clinical Skills Examination to Graduate

Must Pass USMLE Step 1, Step 2 CK, and Step 2 CS to Graduate

## Clinical Nutrition (MS) Program Degree Plan

Total required for graduation: 42 QH

Core courses:

HIPS 561 Statistics for Health Professionals (4QH)

HNUT 504 Information and Health Literacy (3QH)

HNUT 505 Communication Strategies, Methods and Techniques (3QH)

HNUT 506 Health Education Teaching Experience (1QH)

HNUT 511 Nutrition in Chronic Disease (4QH)

HNUT 512 Leadership (3QH)

HNUT 513 Health and Wellness Coaching (3QH)

HNUT 526 Evaluating Research and Health Recommendations (4QH)

HNUT 532 Instructional Design for Health Education (3QH)

HNUT 541 Prevention, Health Promotion and Wellness (3QH)

HNUT 554 Nutrition in Critical Care (3QH)

HNUT 596 Portfolio Evaluation (2QH)

Electives (6QH)

## Health Promotion and Wellness (MS) Program Degree Plan

Total required for graduation: 45 QH

HHCM 517 Management Ethics (3QH)

HHCM 521 Evidence Based Management (3QH)

HHCM 522 Healthcare Policy and Delivery Systems (4QH)

HIPS 561 Statistics for Health Professions (4QH)  
HNUT 504 Information and Health Literacy (3QH)  
HNUT 505 Communication Strategies, Methods and Techniques (3QH)  
HNUT 508 Cultural Dimensions of Healthcare (3QH)  
HNUT 510 Modern Nutrition (3QH)  
HNUT 512 Leadership (3QH)  
HNUT 532 Instructional Design for Health Education (3QH)  
HNUT 541 Prevention, Health Promotion and Wellness (3QH)  
HPHW 583 Independent Study in Health Promotion and Wellness (4QH)  
HPHW 596 Portfolio Evaluation for Health Promotion and Wellness (3QH)  
HPOP 540 Essentials of Population Health (3QH)

## Nutrition Education (MS) Program Degree Plan

Total required for graduation: 42 QH

HIPS 561 Statistics for Health Professionals (4QH)  
HNUT 504 Information and Health Literacy (3QH)  
HNUT 505 Communication Strategies, Methods and Techniques (3QH)  
HNUT 506 Health Education Teaching Experience (1QH)  
HNUT 511 Nutrition in Chronic Disease (4QH)  
HNUT 512 Leadership (3QH)  
HNUT 513 Health and Wellness Coaching (3QH)  
HNUT 526 Evaluating Research and Health Recommendations (4QH)  
HNUT 532 Instructional Design for Health Education (3QH)  
HNUT 541 Prevention, Health Promotion and Wellness (3QH)  
HNUT 596 Portfolio Evaluation (2QH)  
Education Elective (3QH)  
Other Electives (6QH)

## Certificate in Essentials of Health Promotion and Wellness Program Plan

Total required for graduation: 13 QH

HIPS 561 Statistics for Health Professionals (4QH)  
HNUT 532 Instructional Design for Health Education (3QH)  
HNUT 541 Prevention, Health Promotion and Wellness (3QH)  
HPOP 540 Essentials of Population Health (3QH)

## Certificate in Nutrition for Healthcare Professionals Program Plan

Total required for graduation: 12 QH

HNUT 510 Modern Nutrition (3QH)  
HNUT 542 Complementary Medicine and Dietary Supplements (3QH)

HNUT 555 Nutrition in the Lifecycle (3QH)  
HNUT 576 Nutrition in Human Physical Performance (3QH)

## Entry-Level Doctor of Nursing Practice (DNP) Program Degree Plan

Total required for graduation: 177 QH

### Year 1:

HIPS 515 Foundations of Interprofessional Practice (2QH)  
HNAS 698A Scholarly Writing (1QH)  
HNAS 698B Scholarly Writing (2QH)  
HNAS 701 Principles of Anesthesia I (4QH)  
HNAS 710 Chemistry and Physics in Anesthesia (4QH)  
HNAS 711 Clinical Correlations I (1QH)  
HNAS 720 Advanced Nurse Anesthesia Pharmacology I (1QH)  
HNAS 725 Advanced Health Assessment (4QH)  
HNAS 750 Advanced Physiology, Pathophysiology, and Pharmacology I (6QH)  
HNAS 751 Advanced Physiology, Pathophysiology, and Pharmacology II (6QH)  
HNAS 901 Translational Research I (4QH)  
HNAS 902 Translational Research II (3QH)  
HNAS 906 Organizational Theory/Leadership and Management in Healthcare (3QH)  
HNAS 903 Health Policy (3QH)  
HNAS 909 Economics and Finance in Healthcare (3QH)  
MCBA 501 Clinical Anatomy (10 QH)

### Year 2:

HNAS 702 Principles of Anesthesia II (4QH)  
HNAS 703 Principles of Anesthesia III (4QH)  
HNAS 706 Principles of Regional Anesthesia and Pain Management (3QH)  
HNAS 712 Clinical Correlations II (2QH)  
HNAS 713 Clinical Correlations III (2QH)  
HNAS 714 Clinical Seminar I (1QH)  
HNAS 715 Clinical Seminar II (1QH)  
HNAS 721 Advanced Nurse Anesthesia Pharmacology II (2QH)  
HNAS 722 Advanced Nurse Anesthesia Pharmacology III (2QH)  
HNAS 810 Clinical Residency I (12QH)  
HNAS 820 Clinical Residency II (12QH)  
HNAS 905A Doctoral Project Planning (1QH)  
HNAS 905B Doctoral Project Planning (1QH)  
HNAS 905C Doctoral Project Planning (1QH)  
HNAS 905D Doctoral Project Planning (1QH)  
HNAS 907 Quality and Safety/Outcomes Management (3QH)  
HNAS 908A Doctoral Immersion Residency (3QH)  
HNAS 908B Doctoral Immersion Residency (3QH)  
HNAS 911 Professional Dissemination Skills (2QH)

Year 3:

HNAS 716 Clinical Seminar III (1QH)  
HNAS 717 Clinical Seminar IV (1QH)  
HNAS 718 Clinical Seminar V (1QH)  
HNAS 719 Clinical Seminar VI (1QH)  
HNAS 830 Clinical Residency III (10QH)  
HNAS 840 Clinical Residency IV (12QH)  
HNAS 850 Clinical Residency V (12QH)  
HNAS 860 Clinical Residency VI (11 QH)  
HNAS 908C Doctoral Immersion Residency (4QH)  
HNAS 931 Entry-Level Doctoral Project I (3QH)  
HNAS 932 Entry-Level Doctoral Project II (3QH)  
HNAS 913 Professional Role Transition (1QH)

## Completion-Level Doctor of Nursing Practice (DNP) Program Degree Plan

Total required for graduation: 51 QH

HNAS 698A Scholarly Writing (1QH)  
HNAS 698B Scholarly Writing (2QH)  
HNAS 901 Translational Research I (4QH)  
HNAS 902 Translational Research II (3QH)  
HNAS 903 Health Policy (3QH)  
HNAS 905A Doctoral Project Planning (1QH)  
HNAS 905B Doctoral Project Planning (1QH)  
HNAS 905C Doctoral Project Planning (1QH)  
HNAS 905D Doctoral Project Planning (1QH)  
HNAS 906 Organizational Theory/Leadership and Management in Healthcare (3QH)  
HNAS 907 Quality and Safety-Outcomes Management (4QH)  
HNAS 908A Doctoral Immersion Residency (3QH)  
HNAS 908B Doctoral Immersion Residency (3QH)  
HNAS 908C Doctoral Immersion Residency (4QH)  
HNAS 909 Economics and Finance in Healthcare (3QH)  
HNAS 911 Professional Dissemination Skills (2QH)  
HNAS 912A Doctoral Project (3QH)  
HNAS 912B Doctoral Project (3QH)  
Specialty Electives (6QH)

## Entry-Level Doctor of Physical Therapy (DPT) Program Degree Plan

Total required for graduation: 161 QH

Year 1:

HIPS 515 Foundations for Interprofessional Practice (2QH)  
HIPS 551 Leadership in the Health Care Environment (3QH)

HPTH 618 Orientation to Physical Therapy (3QH)  
HPTH 619 Principles of Education (1QH)  
HPTH 620 Clinical Skills I (5QH)  
HPTH 622 Critical Inquiry I (4QH)  
HPTH 623 Practice Issues I (1QH)  
HPTH 630 Clinical Skills II (3QH)  
HPTH 631 Clinical Skills III (3QH)  
HPTH 634 Orthopedic Clinical Medicine (3QH)  
HPTH 635 Kinesiology/Motor Control I (3QH)  
HPTH 636 Kinesiology/Motor Control II (4QH)  
HPTH 640 Clinical Skills IV (5QH)  
HPTH 642 Critical Inquiry II (3QH)  
HPTH 643 Practice Issues II (1QH)  
HPTH 644 Neurological Clinical Medicine and Pharmacology (3QH)  
HPTH 645 Clinical Physiology (6QH)  
HPTH 646 Fundamentals of Physiology (4QH)  
MCBA 501 Clinical Anatomy (10QH)  
PBBS 504 Neuroscience (5QH)

Year 2:

HPTH 717 Clerkship I (6QH)  
HPTH 720 Clinical Skills V (4QH)  
HPTH 721 Clinical Skills VI (3QH)  
HPTH 722 Critical Inquiry III (1QH)  
HPTH 724 Advanced Clinical Medicine and Pharmacology (5QH)  
HPTH 725 Advanced Regional Anatomy (2QH)  
HPTH 737 Clerkship II (12QH)  
HPTH 740 Clinical Skills VII (3QH)  
HPTH 741 Pediatric Physical Therapy (4QH)  
HPTH 742 Physical Therapy in the Critical Care Sector (2QH)  
HPTH 743 Practice Issues III (1QH)  
HPTH 744 Prosthetics/Orthotics (3QH)  
HPTH 747 Cardiovascular and Pulmonary Physical Therapy Part I (2QH)  
HPTH 748 Cardiovascular and Pulmonary Physical Therapy Part II (2QH)  
HPTH 749 Critical Inquiry IV (1QH)  
HPTH 823 Practice Issues IV (3QH)

Year 3:

HPTH 827 Clerkship III (10QH)  
HPTH 837 Clerkship IV (12QH)  
HPTH 843 Practice Issues V (1QH)  
HPTH 848 Professional Practicum (12QH)

## Transition Doctor of Physical Therapy (tDPT) Program Degree Plan

Total required for graduation: 42 QH

HHCM 522 Healthcare Policy and Delivery Systems (4QH)  
HPPT 506 Evidence-Based Practice (3QH)  
HPPT 720 Physical Therapy Examination: Screening for Disease (3QH)  
HPPT 722 Advanced Clinical Practice (3QH)  
HPPT 730 Pharmacology (3QH)  
HPPT 732 Anatomic Imaging (3QH)

*students will choose one of the following two options:*

HPPT 870 Independent Study (3QH)

Electives (20QH)

*OR*

HPPT 880 Practicum (6QH)

Electives (17QH)

## Interprofessional Healthcare Studies (PhD) Program Degree Plan

Total required for graduation: 64 QH

Research Component:

Coursework

HIPS 600 Introduction to Doctoral Studies (3QH)  
HIPS 560 Critical Inquiry I – Research Design (3QH)  
HIPS 561 Statistics for Health Professions (4QH)  
HIPS 562 Measurement Principles (3QH)  
HIPS 680 Proposal Development (3QH)

Fieldwork

HIPS 810 Dissertation Research (18QH)

Interprofessional Component:

Coursework

HIPS 501 Introduction to Interprofessional Healthcare Studies (3QH)  
HIPS 711 Interprofessional Teams (3QH)  
HIPS 601A Interprofessional Education Seminar (3QH)  
*Non-Health Professions Education track:*  
HIPS 601B Interprofessional Practice Seminar (3QH)  
HIPS 601C Interprofessional Theory Seminar (3QH)  
*OR Health Professions Education track:*  
HIPS 721 Principles in Health Professions Education (3QH)  
HIPS 723 Leadership in Health Professions Education (3QH)

Fieldwork

*select two of the following:*

HIPS 701 Practicum in Interprofessional Education (6QH)

HIPS 702 Practicum in Interprofessional Service Learning (6QH)

HIPS 703 Practicum in Interprofessional Healthcare Practice (6QH)

Electives (3QH)

## Interprofessional Healthcare Studies (DSc) Program Degree Plan

Total required for graduation: 61 QH

Research Component:

Coursework

HIPS 600 Introduction to Doctoral Studies (3QH)

HIPS 560 Critical Inquiry I – Research Design (3QH)

HIPS 561 Statistics for Health Professions (4QH)

HIPS 562 Measurement Principles (3QH)

HIPS 680 Proposal Development (3QH)

Fieldwork

HIPS 710 Dissertation Research (9QH)

Interprofessional Component:

Coursework

HIPS 501 Introduction to Interprofessional Healthcare Studies (3QH)

HIPS 711 Interprofessional Teams (3QH)

HIPS 601A Interprofessional Education Seminar (3QH)

*Non-Health Professions Education track:*

HIPS 601B Interprofessional Practice Seminar (3QH)

HIPS 601C Interprofessional Theory Seminar (3QH)

*OR Health Professions Education track:*

HIPS 721 Principles in Health Professions Education (3QH)

HIPS 723 Leadership in Health Professions Education (3QH)

Fieldwork

HIPS 701 Practicum in Interprofessional Education (6QH)

HIPS 702 Practicum in Interprofessional Service Learning (6QH)

HIPS 703 Practicum in Interprofessional Healthcare Practice (6QH)

Electives (3QH)

# Psychology (PhD) Program Degree Plan

Total required for graduation: 235 QH

## Core Courses

HIPS 515 Foundations for Interprofessional Practice (2QH)  
HPSC 510 Psychological Statistics I (5QH)  
HPSC 511 Psychological Statistics II (4QH)  
HPSC 515 Experimental Design and Program Evaluation (4QH)  
HPSC 520 Descriptive Psychopathology (4.5QH)  
HPSC 521 Theoretical Psychopathology (3QH)  
HPSC 541 History and Systems (2QH)  
HPSC 560 Cognition and Cognitive Assessment (4QH)  
HPSC 575 Social Psychology (3QH)  
HPSC 576 Essentials of Physiological Psychology and Behavioral Neuroscience (3QH)  
HPSC 577 Socio and Cultural Basis of Behavior (4.5QH)  
HPSC 664 Personality Assessment (4QH)  
HPSC 668 Theories of Personality and Emotion (3QH)  
HPSC 669 Theories of Counseling and Psychotherapy (4.5QH)  
HPSC 690 Cognitive and Behavioral Interventions (5QH)  
HPSC 750 Advanced Physiological Psychology Lab (1QH)  
HPSC 751 Health Psychology: Cognitive, Affective, and Physiological Bases for Behavior (4QH)  
HPSC 754 Lifespan Developmental Psychology (4.5QH)  
HPSC 755 Ethical Issues and Professional Standards in Clinical Psychology I (1QH)  
HPSC 756 Ethical Issues and Professional Standards in Clinical Psychology II (3QH)  
HPSC 784 Professional Seminar in Clinical Fundamentals (3QH)

## Concentration Courses (13QH)

### Neuropsychology:

HPSC 567 Neuropsychological Assessment (4QH)  
HPSC 574 Neuropsychological Models of Cognition and Emotion (3QH)  
HPSC 503 Advanced Specialty Training Seminar: Neuropsychology (3QH) – Year 3  
Electives (3QH)

### Health Psychology:

HPSC 573 Health Psychology: Psychological Comorbidities of Physical Illness (4QH)  
HPSC 502 Advanced Specialty Training Seminar: Health Psychology (3QH) – Year 3  
Electives (6QH)

### Psychopathology:

HPSC 501 Advanced Specialty Training Seminar: Psychotherapy (3QH) – Year 3  
Electives (10QH)

## Practica

HPSC 800 Clinical Practicum (36QH)  
HPSC 500 Clinical Practicum Supervision (3QH) – Year 1  
HPSC 610 Clinical Practicum Supervision (3QH) – Year 2

HPSC 810 Clinical Practicum Supervision (3QH) – Year 4  
HPSC 850 Research Practicum (21QH)  
HPSC 890 Dissertation Research (36QH)  
HPSC 891 Internship (48QH)

## Biomedical Sciences (MS) Program Degree Plan

Total required for graduation: 50-53 QH

### Core Courses:

GPHY 522 Topics in Physiology (5QH)  
HIPS 502 Introduction to Interprofessional Healthcare (2QH)  
MBCH 502 Clinical Molecular Cell Biology (3.5QH)  
MBCH 505 Medical Biochemistry (6QH)  
MNSC 501 Medical Neuroscience (7.5QH)  
MPHY 500 Medical Physiology (14QH)

Certificate Tracks (students also obtain one of the following certificates):

### Health Administration

HHCM 521 Evidence-Based Management (3QH)  
HHCM 523 Current Topics in Healthcare Administration and Management (3QH)  
HHCM 524 Organizational Behavior and Human Resources (3QH)  
HHCM 525 Strategic Planning and Leadership in Healthcare (3QH)

### Population Health Strategies

HHCM 516 Risk and Quality Management (3QH)  
HIPS 561 Statistics for Healthcare Professionals (4QH)  
HPOP 540 Essentials of Population Health (3QH)  
HPOP 541 Community Health Assessment (3QH)

### Health Professions Education

HHPE 510 Learning Theories (3QH)  
HHPE 535 Course Development (4QH)  
HHPE 540 Classroom Assessment (4QH)  
HHPE 685 Portfolio Presentation (1QH)  
*and select one of the two of the following courses:*  
HHPE 512 Instructional Presentation Skills (3QH)  
*OR*  
HHPE 545 Evaluating Clinical Competence (3QH)

### Nutrition

HNUT 510 Modern Nutrition (3QH)  
HNUT 541 Prevention, Health Promotion and Wellness (3QH)  
HNUT 542 Complementary Medicine and Dietary Supplements (3QH)  
HNUT 555 Nutrition in the Lifecycle (3QH)

## Health Administration (MS) Program Degree Plan

Total required for graduation: 46 QH

HHCM 507 Healthcare Informatics (3QH)  
HHCM 508 Marketing Healthcare (4QH)  
HHCM 515 Healthcare Law (3QH)  
HHCM 516 Risk and Quality Management in Healthcare (3QH)  
HHCM 517 Management Ethics (3QH)  
HHCM 521 Evidence-Based Management (3QH)  
HHCM 522 Healthcare Policy and Delivery Systems (4QH)  
HHCM 524 Organizational Behavior and Human Resources (3QH)  
HHCM 525 Strategic Planning and Leadership in Healthcare (3QH)  
HHCM 551 Accounting and Financial Management in Healthcare (4QH)  
HIPS 561 Statistics for Health Professions (4QH)  
HHCM 590 Final Portfolio (3QH)  
Electives (6QH)

## Health Professions Education (MS) Program Degree Plan

Total required for graduation: 47 QH

HHPE 510 Learning Theories (3QH)  
HHPE 512 Instructional Presentations Skills (3QH)  
HHPE 530 Curriculum Design (3QH)  
HHPE 535 Course Development (4QH)  
HHPE 540 Classroom Assessment (4QH)  
HHPE 560 Managing Change in Educational Organizations (3QH)  
HHPE 580 Research in Education (3QH)  
HHPE 620 Program Evaluation and Accreditation (3QH)  
HHPE 680 Teaching Practicum (3QH)  
HHPE 685 Portfolio Presentation (3QH)  
Electives (15QH)

## Pathologists' Assistant (MS) Program Degree Plan

Total required for graduation: 124.5 QH

Year 1:

HAPA 535 Medical Terminology (1QH)  
HAPA 540 Autopsy Pathology (2QH)  
HAPA 540A Autopsy Pathology Lab (2QH)  
HAPA 550 Seminar I (2QH)  
HAPA 551 Seminar II (2QH)  
HAPA 552 Seminar III (2QH)  
HAPA 553 Seminar IV (2QH)

HAPA 560 Clinical Correlations I (3QH)  
HAPA 560A Clinical Correlations I Lab (2QH)  
HAPA 561 Clinical Correlations II (3QH)  
HAPA 561A Clinical Correlations II Lab (2QH)  
HAPA 562 Clinical Correlations III (3QH)  
HAPA 562A Clinical Correlations III Lab (2QH)  
HAPA 563 Clinical Correlations IV (3QH)  
HAPA 563A Clinical Correlations IV Lab (2QH)  
HIPS 515 Foundations for Interprofessional Practice (2QH)  
HIPS 551 Leadership in the Healthcare Environment (3QH)  
MCBA 501 Clinical Anatomy (10QH)  
MPAT 600 General and Systemic Pathology (12.5QH)  
PBBS 503 Structure and Function (11QH)  
PBBS 504 Neuroscience (5QH)

Year 2:

HAPA 630 Anatomic Pathology Clerkship I (12QH)  
HAPA 631 Anatomic Pathology Clerkship II (12QH)  
HAPA 632 Anatomic Pathology Clerkship III (12QH)  
HAPA 633 Anatomic Pathology Clerkship IV (12QH)

## Physician Assistant Practice (MS) Program Degree Plan

Total required for graduation: 147 QH

Year 1:

HIPS 515 Foundations for Interprofessional Practice (2QH)  
HIPS 551 Leadership Skills in Healthcare Environment (3QH)  
HPAS 500 Physician Assistant Professional Issues and Ethics (2QH)  
HPAS 501 General Medicine and Infectious Disease I (9QH)  
HPAS 502 Introduction to EKG (2QH)  
HPAS 510 General Medicine and Infectious Disease II (9QH)  
HPAS 513 Physical Assessment (4QH)  
HPAS 512 Clinical Decision-Making I (1QH)  
HPAS 515 Psychosocial Aspects of Patient Care (1QH)  
HPAS 518 Emergency Medicine (2QH)  
HPAS 519 Obstetrics and Gynecology (3QH)  
HPAS 520 General Medicine and Infectious Disease III (8QH)  
HPAS 522 Clinical Decision-Making II (2QH)  
HPAS 523 Clinical Procedures (3QH)  
HPAS 525 Geriatrics (2QH)  
HPAS 528 Research and Statistics (2QH)  
HPAS 532 Interprofessional Case Collaborations (3QH)  
HPAS 537 Population Medicine (1QH)  
HPAS 538 Introduction to Clinical Medicine for the Physician Assistant (2QH)  
HPAS 539 Introduction to Pharmacotherapy (1QH)

HPAS 540 Pediatrics (2QH)  
HPAS 542 Clinical Decision-Making III (2QH)  
HPAS 543 Clinical Decision Making IV (2QH)  
HPAS 600 Pharmacotherapy I (4QH)  
HPAS 610 Pharmacotherapy II (3QH)  
HPAS 620 Pharmacotherapy III (3QH)  
HPAS 646 Advanced Physical Examination (2QH)  
HPAS 650 Complementary Medicine (1QH)  
MCBA 501 Clinical Anatomy (10QH)

Year 2:

HPAS 550 Internal Medicine (6QH)  
HPAS 560 General Surgery (6QH)  
HPAS 565 Family Medicine (6QH)  
HPAS 570 Women's Health (6QH)  
HPAS 575 Pediatrics (6QH)  
HPAS 580 Emergency Medicine (6QH)  
HPAS 591 Elective Rotation I (6QH)  
HPAS 592 Elective Rotation II (6QH)  
HPAS 690 Master's Project (8QH)

## Population Health (MS) Program Degree Plan

Total required for graduation: 45 QH

Core courses:

HHCM 515 Healthcare Law (3QH)  
HHCM 516 Risk and Quality Management in Healthcare (3QH)  
HHCM 517 Management Ethics (3QH)  
HHCM 520 Cultural Diversity and the Management of Healthcare (3QH)  
HHCM 522 Healthcare Policy and Delivery Systems (4QH)  
HHCM 630 Public Health Epidemiology (4QH)  
HIPS 561 Statistics for Health Professions (4QH)  
HPOP 530 Research Methodology I (3QH)  
HPOP 540 Essentials of Population Health (3QH)  
HPOP 541 Community Health Assessment and Intervention (3QH)  
HPOP 590 Population Health Field Research Capstone Course (3QH)

*students can take either of the following:*

HPOP 535 Health Economics, Policy and Advocacy (3QH)

*OR*

HNAS 909 Economics and Finance in Healthcare (3QH)

Electives (6QH)

## Psychology: Clinical Counseling (MS) Program Degree Plan

Total required for graduation: 90 QH (or 102.5 QH for research concentration)

### Year 1

HIPS 515 Foundations for Interprofessional Practice (2QH)  
HPCC 501 Ethical Issues and Standards for Professional Counselors (4.5QH)  
HPCC 502 Diagnostic Interviewing and Report Writing (4QH)  
HPCC 503 Cognitive and Behavioral Therapy – Child and Adolescent (4.5QH)  
HPCC 505 Personality Assessment in Counseling (4.5QH)  
HPSC 520 Descriptive Psychopathology (4.5QH)  
HPSC 577 Socio and Cultural Foundations of Behavior (4.5QH)  
HPSC 690 Cognitive and Behavioral Interventions (5QH)  
HPSC 669 Theories of Counseling and Psychotherapy (4.5QH)

### Year 2

HPCC 600 Substance Abuse Assessment and Treatment (4.5QH)  
HPCC 601 Group Dynamics and Counseling (4.5QH)  
HPCC 602 Career Counseling and Development (4.5QH)  
HPCC 603A Practicum/Internship and Seminar I (5QH)  
HPCC 603B Practicum/Internship and Seminar II (5QH)  
HPSC 668 Theories of Personality and Emotion (3QH)  
HPSC 754 Lifespan Developmental Psychology (4.5QH)  
HPSC 783 Family Systems and Therapy (4.5QH)

### Concentration-Specific Courses

Standard (16.5QH):

HPCC 500 Research Methods for Counselors (4.5QH)  
Electives (12QH)

Research Concentration (29QH):

HPSC 510 Psychological Statistics I (5QH)  
HPSC 515 Experimental Design and Program Evaluation I (4QH)  
HPSC 850 Research Practicum (14QH)  
Electives (6QH)

## Psychology: Clinical Psychology (MS) Program Degree Plan

Total required for graduation: 82.5 QH

### Core Courses:

HIPS 515 Foundations for Interprofessional Practice (2QH)  
HPSC 510 Psychological Statistics I (5QH)  
HPSC 511 Psychological Statistics II (4QH)  
HPSC 515 Experimental Design and Program Evaluation (4QH)  
HPSC 520 Descriptive Psychopathology (4.5QH)

HPSC 560 Cognition and Cognitive Assessment (4QH)  
HPSC 576 Essentials of Physiological Psychology and Behavioral Neuroscience (3QH)  
HPSC 669 Theories of Counseling and Psychotherapy (4.5QH)  
HPSC 690 Cognitive and Behavioral Interventions (5QH)  
HPSC 750 Advanced Physiological Psychology Lab (1QH)  
HPSC 755 Ethical Issues and Professional Standards in Clinical Psychology I (1QH)  
HPSC 784 Professional Seminar in Clinical Fundamentals (3QH)  
HPSC 664 Personality Assessment (4QH)  
HPSC 668 Theories of Personality and Emotion (3QH)  
HPSC 754 Lifespan Developmental Psychology (4.5QH)

Practica:

HPSC 800 Clinical Practicum (12QH)  
HPSC 850 Research Practicum (12QH)  
HPSC 500 Clinical Practicum Supervision (3QH) – Year 1  
HPSC 610 Clinical Practicum Supervision (3QH) – Year 2

## Certificate in Health Administration Program Plan

Total required for graduation: 12 or 13QH

Core courses:

HHCM 521 Evidence-Based Management (3QH)  
HHCM 523 Current Topics in Healthcare Administration and Management (3QH)  
HHCM 524 Organizational Behavior and Human Resources (3QH)

*and select one of the following courses:*

HHCM 522 Healthcare Policy and Delivery Systems (4QH)

*OR*

HHCM 525 Strategic Planning and Leadership in Healthcare (3QH)

## Certificate in Health Professions Education Program Plan

Total required for graduation: 15 QH

HHPE 510 Learning Theories (3QH)  
HHPE 535 Course Development (4QH)  
HHPE 540 Classroom Assessment (4QH)  
HHPE 685 Portfolio Presentation (1QH)  
HHPE 512 Instructional Presentation Skills (3QH)

## Certificate in Population Health Analytics Program Plan

Total required for graduation: 13 QH

HHCM 507 Healthcare Informatics (3QH)  
HHCM 630 Public Health Epidemiology (4QH)

HPOP 508 Health Program Planning and Evaluation (3QH)  
HPOP 530 Research Methodology I (3QH)

## Certificate in Population Health Strategies Program Plan

Total required for graduation: 13 QH

HHCM 516 Risk and Quality Management in Healthcare (3QH)  
HIPS 561 Statistics for Health Professions (4QH)  
HPOP 540 Essentials of Population Health (3QH)  
HPOP 541 Community Health Assessment and Intervention (3QH)

## Doctor of Pharmacy (PharmD) Program Degree Plan

Total required for graduation: 201 QH

Year 1:

HIPS 515 Foundations for Interprofessional Practice (2QH)  
MMTD 510 Bioethics (2QH)  
YPHP 500 Introduction to Pharmacy Practice (1QH)  
YPHP 502 Introduction to Drug Information Resources (1QH)  
YPHP 504 Health Care Systems (2QH)  
YPHP 505 Research and Statistics (3QH)  
YPHP 506 Pharmacy Skills Lab I (2QH)  
YPHP 507 Pharmacy Skills Lab II (2QH)  
YPHP 508 Pharmacy Skills Lab III (1QH)  
YPHP 510 Self-Care and Non-Prescription Medications (3QH)  
YPHP 511 Pharmacy-Based Immunization Delivery (1QH)  
YPHP 515 Introductory Pharmacy Practice Experience (6QH)  
YPHS 501 Pharmaceutics I: Introduction to Pharmaceutical Sciences (3QH)  
YPHS 502 Pharmaceutics II: Dosage Forms (2QH)  
YPHS 503 Pharmaceutics III: Calculations (3QH)  
YPHS 504 Biochemical Principles for Pharmacy (4QH)  
YPHS 506 Medicinal Chemistry (2QH)  
YPHS 507 Microbiology & Immunology (7QH)  
YPHS 509 Pharmaceutics Non-Sterile Compounding (1QH)  
YPHS 510 Fundamentals in Physiology I (4QH)  
YPHS 511 Fundamentals in Physiology II (4QH)

Year 2:

PBBS 601 Pharmacology (8.5QH)  
YPHP 604 Clinical Pharmacokinetics and Pharmacodynamics (2QH)  
YPHP 606 Pharmacy Skills Lab IV (3QH)  
YPHP 607 Pharmacy Skills Lab V (3QH)  
YPHP 608 Pharmacy Skills Lab VI (3QH)  
YPHP 615 Introductory Pharmacy Practice Experience (6QH)

YPHP 620 Pharmacotherapy I (4QH)  
YPHP 621 Pharmacotherapy II (4QH)  
YPHP 622 Pharmacotherapy III (4QH)  
YPHP 625 Applications of Drug Information (1QH)  
YPHS 600 Basic Pharmacokinetics and Pharmacodynamics (3QH)  
YPHS 609 Introduction to Pharmacogenomics and Molecular Biology (2QH)  
YPHS 610 Advanced Medicinal Chemistry (2QH)  
YPHS 620 Life-Long Learning Seminar (1QH)  
YPHS 709 Epidemiology (2QH)

Year 3:

YPHP 703 Pharmacy Management and Leadership (2QH)  
YPHP 706 Pharmacy Skills Lab VII (2QH)  
YPHP 707 Pharmacy Skills Lab VIII (2QH)  
YPHP 708 Pharmacy Skills Lab IX (1QH)  
YPHP 709 Health Care and Pharmacy Law (3QH)  
YPHP 710 Pharmacotherapy IV (3QH)  
YPHP 711 Pharmacotherapy V (4QH)  
YPHP 712 Pharmacotherapy VI (3QH)  
YPHP 713 Pharmacogenomics (1QH)  
YPHP 714 Pharmacoeconomics (2QH)  
YPHP 715 Introductory Pharmacy Practice Experience (3.5QH)  
YPHP 716 Interprofessional Case Collaborations (3QH)  
YPHP 719 Gateway to Clinical Practice (2QH)  
YPHS 720 Life-Long Learning Seminar (1QH)  
Electives (6QH)

Year 4:

YPHP 800 Practical Approaches to Professional Development (4QH)  
YPHP 801 Advanced Pharmacy Practice Experience – Acute Care (9QH)  
YPHP 802 Advanced Pharmacy Practice Experience – Ambulatory Care (9QH)  
YPHP 803 Advanced Pharmacy Practice Experience – Community Pharmacy (9QH)  
YPHP 804 Advanced Pharmacy Practice Experience – Health-Systems (9QH)  
*and two electives (18QH total) from one or both of the following:*  
YPHP 805 Advanced Pharmacy Practice Experience – Patient Care Elective (9QH)  
YPHP 806 Advanced Pharmacy Practice Experience – Non-Patient Care Elective (9QH)

## Doctor of Podiatric Medicine (DPM) Program Degree Plan

Total required for graduation: 296.5 QH

Year 1:

MCBA 500 Clinical Anatomy (10QH)  
PBBS 502 Biochemistry (5QH)  
PBBS 507 Genetics and Medicine (2QH)  
PBBS 503 Structure and Function (11QH)

PBBS 504 Neuroscience (5QH)  
PBBS 505 Microbiology and Immunology (7QH)  
PBBS 506 Lower Extremity Anatomy (8QH)  
PAPB 501 Understanding and Implementing Clinical Research (1QH)  
PAPB 502 Biomechanics (6QH)  
PMED 502 Podiatric Medicine and Surgery (4QH)  
PMED 503 Podiatric Clinical Skills and Reasoning I (2QH)  
HIPS 515 Foundations for Interprofessional Practice (2QH)  
MCUR 502 Essentials of Clinical Reasoning I (6QH)

Year 2:

PBBS 601 Pharmacology (8.5QH)  
PBBS 602 Pathology (10.5QH)  
MCUR 602 Essentials of Clinical Reasoning II (5QH)  
PAPB 605 Sports Medicine (3QH)  
PAPB 606 Pediatric Orthopedics (4QH)  
PSUR 602 General Surgical Principles and Anesthesiology (10QH)  
PRAD 602 Podiatric Radiology (6QH)  
PMED 605 Podiatric Clinical Skills and Reasoning II – Workshop (4QH)  
PMED 606 Podiatric Clinical Skills and Reasoning II – Clinic (4QH)  
PMED 603 Dermatology (2.5QH)  
PMED 608 Medicine (8QH)  
PAPB 604 Orthotic Laboratory Workshop (0.5QH)  
PDPM 600 Basic Biomedical Science Comprehensive Exam (2QH)

Year 3:

PSUR 706 Lower Extremity Traumatology (2QH)  
PMED 702 Peripheral Vascular Diseases (1.5QH)  
PMED 709 Community Health, Ethics and Professional Responsibility (3QH)  
PAPB 705 Podiatric Orthopedics Capstone Clinical Experience – Workshop (6QH)  
PMED 707 Podiatric Medicine Capstone Clinical Experience – Workshop (8.5QH)  
PRAD 702 Podiatric Radiology Capstone Clinical Experience – Workshop (9QH)  
PSUR 704 Podiatric Surgery Capstone Clinical Experience – Workshop (5.5QH)  
PMED 708 Podiatric Clinical Skills and Reasoning III – Clinic (7QH)

Year 4:

PACE 801 Stroger (Cook County) Hospital Core Podiatry Clerkship (8QH)  
PACE 802 James A. Lovell Federal Health Care Center Core Podiatry Clerkship (8QH)  
PACE 803 Jesse Brown VA Core Podiatry Clerkship (8QH)  
PACE 804 Hines VA Core Podiatry Clerkship (8QH)  
PACE 805 Scholl College of Podiatric Medicine Clerkship (4QH)  
PDPM 800 Clinical Competency Exam (1QH)  
PMED 801 Internal Medicine Clerkship (8QH)  
PMED 802 Emergency Medicine Clerkship (8QH)  
PSUR 802 General Surgery Clerkship (8QH)

PELE 700 & 800 Third and Fourth Year Electives (56QH)

## Biochemistry and Molecular Biology (MS) Program Degree Plan

Total required for graduation: 45 QH

### Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)

GIGP 518 Writing Skills (2QH)

### Advanced Coursework:

GBCH 543 Enzyme Structure and Mechanism (3QH)

GBCH 544 Physical Biochemistry (3QH)

GBCH 600 Biochemical Pathways (9QH)

*Additional advanced coursework if indicated by Research Committee*

### Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GBCH 532 Biochemistry and Molecular Biology Journal Club (1QH per academic year)

GBCH 533 Biochemistry and Molecular Biology Seminar (1QH per academic year)

### Research/Thesis:

*Students must take the following course every quarter that they are enrolled after selection of specific degree program:*

GBCH 530 Master's Thesis in Biochemistry (10-12QH per quarter)

*OR*

GBCH 531 Master's Research in Biochemistry (10-12QH per quarter)

## Biochemistry and Molecular Biology (PhD) Program Degree Plan

Total required for graduation: 135 QH

### Core Courses:

GIGP 500 First-Year Lab Rotations (32QH)

GIGP 501 Molecular Cell Biology I (6QH)

GIGP 502 Molecular Cell Biology II (4QH)

GIGP 503 Systems Lectures (2QH)

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)  
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*  
GIGP 509 Biostatistics (1QH)  
GIGP 510 Computer Applications in Biomedical Research (2QH)  
GIGP 518 Writing Skills (2QH)

Other GIGP Courses:

GIGP 505 Cellular and Molecular Developmental Biology (4QH)

Advanced Coursework:

GBCH 543 Enzyme Structure and Mechanism (3QH)  
GBCH 544 Physical Biochemistry (3QH)  
GBCH 600 Biochemical Pathways (9QH)

*Additional advanced coursework as indicated by Research Committee*

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)  
*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GBCH 532 Biochemistry and Molecular Biology Journal Club (1QH per academic year)  
GBCH 533 Biochemistry and Molecular Biology Seminar (1QH per academic year)

Dissertation Research:

*Students must take one of the following courses every quarter that they are enrolled after selection of specific degree program:*

GBCH 599 Pre-Candidacy Research Activities (10-12QH per quarter)

*OR*

GBCH 699 Post-Candidacy Doctoral Research Activities (10-12QH per quarter)

## Cell Biology and Anatomy (MS) Program Degree Plan

Total required for graduation: 45 QH

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)  
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*  
GIGP 509 Biostatistics (1QH)  
GIGP 510 Computer Applications in Biomedical Research (2QH)  
GIGP 518 Writing Skills (2QH)

Advanced Coursework

*If indicated by Research Committee*

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GCBA 532 Cell Biology and Anatomy Journal Club (1QH per academic year)

GCBA 533 Cell Biology and Anatomy Seminar (1QH per academic year)

Thesis Research:

*Students must take the following course every quarter that they are enrolled after selection of specific degree program:*

GCBA 530 Master's Thesis in Cell Biology and Anatomy (10-12QH)

## Cell Biology and Anatomy (PhD) Program Degree Plan

Total required for graduation: 135 QH

Core Courses:

GIGP 500 First-Year Lab Rotations (32QH)

GIGP 501 Molecular Cell Biology I (6QH)

GIGP 502 Molecular Cell Biology II (4QH)

GIGP 503 Systems Lectures (2QH)

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)

GIGP 518 Writing Skills (2QH)

Other GIGP Courses:

GIGP 505 Cellular and Molecular Developmental Biology (4QH)

Advanced Coursework:

GCBA 600 Advanced Cell Biology (2QH)

GBCA 604 Techniques in Cell Biology (2QH)

*Additional advanced coursework as indicated by Research Committee*

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GCBA 532 Cell Biology and Anatomy Journal Club (1QH per academic year)

GCBA 533 Cell Biology and Anatomy Seminar (1QH per academic year)

Dissertation Research:

*Students must take one of the following courses every quarter that they are enrolled after selection of specific degree program:*

GCBA 599 Pre-Candidacy Research Activities (10-12QH per quarter)

*OR*

GCBA 699 Post-Candidacy Doctoral Research Activities (10-12QH per quarter)

## Cellular and Molecular Pharmacology (MS) Program Degree Plan

Total required for graduation: 45 QH

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)

GIGP 518 Writing Skills (2QH)

Advanced Coursework:

*If indicated by Research Committee*

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1QH per academic year)

GCMP 509 Seminars in Cellular and Molecular Pharmacology (1QH per academic year)

Thesis Research:

*Students must take the following course every quarter that they are enrolled after selection of specific degree program:*

GCMP 599 Pre-Candidacy Research Activities (10-12QH)

## Cellular and Molecular Pharmacology (PhD) Program Degree Plan

Total required for graduation: 135 QH

Core Courses:

GIGP 500 First-Year Lab Rotations (32QH)

GIGP 501 Molecular Cell Biology I (6QH)

GIGP 502 Molecular Cell Biology II (4QH)

GIGP 503 Systems Lectures (2QH)

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)  
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*  
GIGP 509 Biostatistics (1QH)  
GIGP 510 Computer Applications in Biomedical Research (2QH)  
GIGP 518 Writing Skills (2QH)

Other GIGP Courses:

GIGP 512 Neuroscience (5QH)  
GIGP 516 Physiology for Neuro-Pharm Research (4QH)

Advanced Coursework:

GCMP 601 Neuropharmacology I (2QH)  
GCMP 602 Neuropharmacology II (2QH)  
GCMP 605 Pharmacology Core (6QH)  
GCMP 700 Teaching in Pharmacology (1QH)  
*Additional advanced coursework as indicated by Research Committee*

Electives (1QH minimum)

*students must choose at least one of the following:*

GNSC 600 Neurophysiology (2QH)  
GNSC 606 Neurodegeneration (2QH)  
GNSC 607 Neuronal Signaling (2QH)

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)  
*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*  
GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1QH per academic year)  
GCMP 509 Seminars in Cellular and Molecular Pharmacology (1QH per academic year)

Dissertation Research:

*Students must take one of the following courses every quarter that they are enrolled after selection of specific degree program:*

GCMP 599 Pre-Candidacy Research Activities (10-12QH per quarter)  
*OR*  
GCMP 699 Post-Candidacy Doctoral Research Activities (10-12QH per quarter)

## Microbiology and Immunology (MS) Program Degree Plan

Total required for graduation: 45 QH

### Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)  
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*  
GIGP 509 Biostatistics (1QH)  
GIGP 510 Computer Applications in Biomedical Research (2QH)  
GIGP 518 Writing Skills (2QH)

### Advanced Coursework:

*If indicated by Research Committee*

### Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)  
*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*  
GMIC 532 Microbiology and Immunology Journal Club (1QH per academic year)  
GMIC 533 Seminar in Microbiology and Immunology (1QH per academic year)

### Thesis Research:

*Students must take the following course every quarter that they are enrolled after selection of specific degree program:*

GMIC 530 Master's Thesis in Cell Biology and Anatomy (10-12QH)

## Microbiology and Immunology (PhD) Program Degree Plan

Total required for graduation: 135 QH

### Core Courses:

GIGP 500 First-Year Lab Rotations (32QH)  
GIGP 501 Molecular Cell Biology I (6QH)  
GIGP 502 Molecular Cell Biology II (4QH)  
GIGP 503 Systems Lectures (2QH)

### Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)  
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*  
GIGP 509 Biostatistics (1QH)  
GIGP 510 Computer Applications in Biomedical Research (2QH)  
GIGP 518 Writing Skills (2QH)

### Other GIGP Courses:

GIGP 505 Cellular and Molecular Developmental Biology (4QH)

Advanced Coursework:

GMIC 600A Medical Microbiology and Immunology I (4QH)

GMIC 600B Medical Microbiology and Immunology II (4QH)

GMIC 605 Molecular Biology Techniques (2QH)

*Additional advanced coursework as indicated by Research Committee*

Electives (5QH minimum):

*students must choose at least two of the following:*

GMIC 503 Virology (4QH)

GMIC 560 Advanced Immunology (3QH)

GMIC 606 Cancer Biology and Signaling (2QH)

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GMIC 532 Microbiology and Immunology Journal Club (1QH per academic year)

GMIC 533 Seminar in Microbiology and Immunology (1QH per academic year)

Dissertation Research:

*Students must take one of the following courses every quarter that they are enrolled after selection of specific degree program:*

GMIC 599 Pre-Candidacy Research Activities (10-12QH per quarter)

*OR*

GMIC 699 Post-Candidacy Doctoral Research Activities (10-12QH per quarter)

## Neuroscience (MS) Program Degree Plan

Total required for graduation: 45 QH

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)

GIGP 518 Writing Skills (2QH)

Advanced Coursework:

*If indicated by Research Committee*

Repeated Courses (Regular Neuroscience Track):

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GNSC 553 Neuroscience Journal Club (1QH per academic year)

GNSC 504 Neuroscience Seminar (1QH per academic year)

Repeated Courses (Neuropharmacology Track):

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1QH per academic year)

GCMP 509 Seminars in Cellular and Molecular Pharmacology (1QH per academic year)

Thesis Research:

*Students must take the following course every quarter that they are enrolled after selection of specific degree program:*

GNSC 599 Pre-Candidacy Research Activities (10-12QH)

## Neuroscience (PhD) Program Degree Plan

Total required for graduation: 135 QH

Core Courses:

GIGP 500 First-Year Lab Rotations (32QH)

GIGP 501 Molecular Cell Biology I (6QH)

GIGP 502 Molecular Cell Biology II (4QH)

GIGP 503 Systems Lectures (2QH)

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)

GIGP 518 Writing Skills (2QH)

Other GIGP Courses:

GIGP 512 Neuroscience (5QH)

GIGP 516 Physiology for Neuro-Pharm Research (4QH)

## Regular Neuroscience Track

### Advanced Coursework:

GCMP 601 Neuropharmacology I (2QH)  
GCMP 602 Neuropharmacology II (2QH)  
GNSC 505 Human Brain Dissection (1QH)  
GNSC 570 Principles and Practice in Neuroscience Teaching (4QH)  
GNSC 600 Neurophysiology (2QH)  
GNSC 605 Techniques in Microscopy (1QH)  
GNSC 606 Neurodegeneration (2QH)  
GNSC 607 Neuronal Signaling (2QH)

*Additional advanced coursework as indicated by Research Committee*

### Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GNSC 553 Neuroscience Journal Club (1QH per academic year)

GNSC 504 Neuroscience Seminar (1QH per academic year)

## OR Neuropharmacology Track

### Advanced Coursework:

GCMP 601 Neuropharmacology I (2QH)  
GCMP 602 Neuropharmacology II (2QH)  
GNSC 600 Neurophysiology (2QH)  
GNSC 606 Neurodegeneration (2QH)  
GNSC 607 Neuronal Signaling (2QH)  
GCMP 605 Pharmacology Core (6QH)  
GCMP 700 Teaching in Pharmacology (1QH)

*Additional advanced coursework as indicated by Research Committee*

### Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1QH per academic year)

GCMP 509 Seminars in Cellular and Molecular Pharmacology (1QH per academic year)

## Dissertation Research (70QH total):

*Students must take one of the following courses every quarter that they are enrolled after selection of specific degree program:*

GNSC 599 Pre-Candidacy Research Activities (10-12QH per quarter)

OR

GNSC 699 Post-Candidacy Doctoral Research Activities (10-12QH per quarter)

## Physiology and Biophysics (MS) Program Degree Plan

Total required for graduation: 45 QH

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)

GIGP 518 Writing Skills (2QH)

Advanced Coursework:

GPHY 522 Topics in Physiology (6QH)

*Additional advanced coursework if indicated by Research Committee*

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GMTD 711 Physiology and Biophysics Journal Club (1QH per academic year)

GPHY 505 Physiology and Biophysics Seminar (1QH per academic year)

Thesis Research:

*Students must take the following course every quarter that they are enrolled after selection of specific degree program:*

GPHY 620 Master's Research in Physiology (10-12QH per quarter)

## Physiology and Biophysics (PhD) Program Degree Plan

Total required for graduation: 135 QH

Core Courses:

GIGP 500 First-Year Lab Rotations (32QH)

GIGP 501 Molecular-Cell Biology I (6QH)

GIGP 502 Molecular-Cell Biology II (4QH)

GIGP 503 Systems Lectures (2QH)

Specialty Courses:

GIGP 507 Art of Scientific Presentations (2QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (2QH) – *every five years*

GIGP 509 Biostatistics (1QH)

GIGP 510 Computer Applications in Biomedical Research (2QH)  
GIGP 518 Writing Skills (2QH)

Other GIGP Courses:

GIGP 506 Systems Physiology (6QH)

Advanced Coursework:

GPHY 500 Medical Physiology (14QH)

GPHY 534 Teaching Methods (4QH)

*Additional advanced coursework as indicated by Research Committee*

Repeated Courses:

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled:*

GMTD 709 Molecular and Cellular Sciences Seminar Series (1QH per academic year)

*Students must take the following courses every Fall, Winter, and Spring quarter that they are enrolled after selection of specific degree program:*

GMTD 711 Physiology and Biophysics Journal Club (1QH per academic year)

GPHY 505 Physiology and Biophysics Seminar (1QH per academic year)

Dissertation Research:

*Students must take one of the following courses every quarter that they are enrolled after selection of specific degree program:*

GPHY 599 Pre-Candidacy Research Activities (10-12QH per quarter)

*OR*

GPHY 699 Post-Candidacy Doctoral Research Activities (10-12QH per quarter)