Medical Sciences Major: Student Handbook

Section I: Introduction

Mission statement

The University of Cincinnati Undergraduate Program in Medical Sciences is an innovative pathway based in the College of Medicine that provides students with integrated academic, experiential, and mentored opportunities that prepare them for careers in medicine, biomedical sciences, and other health care professions.

Outcomes of the program

Upon completion of the program, students will be able to:

- Explain the problems that confront modern medicine and research.
- Identify and describe the fundamental concepts in the medical sciences: biochemistry, genetics, physiology, pharmacology, microbiology, embryology, and anatomy.
- Conduct original research in the medical sciences.
- Apply trans-disciplinary approaches to solving real world problems.
- Communicate research findings to clinicians, scientists and patients.
- Apply scholarly literature to clinical practice and research.
- Demonstrate professional skills and behavior.
- Cultivate the qualities of empathy and respect for people who come from different cultures and socio-economic backgrounds.
- Create a career development plan that articulates both short and long-term goals and strategies to implement these goals.

What is the major?

Medical Sciences comprises biological sciences, applied sciences & engineering, informatics and technology, with an emphasis on human health and disease. Medical Sciences provide the scientific basis for modern medical practices.

The Bachelor of Science in Medical Sciences will develop firsthand skills in scientific research, creative inquiry, writing and presenting, and working in medical facilities. Along with a strong foundation of knowledge in the core academic disciplines including chemistry, biology, physics, calculus, statistics, as well as the humanities, and social sciences, the students will be mentored by medical and graduate students, residents, medical researchers and faculty members of the College of Medicine and Children’s Hospital. This academic and mentoring foundation will serve as the platform for advanced courses in physiology, genetics, pharmacology, biochemistry, and other medical sciences courses, which uniquely define this Major. Our expectation is that each student will navigate their studies within a close cohort of peers, and develop into a skilled student able to make informed decisions to successfully enter a field that they find satisfying, rewarding, and fascinating.

Success Factors

We are dedicated to your success. Students who successfully complete the program are prepared to enter a medical school, or a graduate program in a health sciences or other scientific discipline. These can include traditional medicine (MD), Osteopathic Medicine (DO), Physician Assistant (PA), Anesthesia Assisting, pharmacy,
dentistry, optometry, Chiropractic Medicine (DC), chemistry, biology, neuroscience, physiology, pharmacology, or a variety of other medically-related disciplines. This career path requires a very strong academic commitment. Not only should students maintain excellent academic performance, but also develop an intellectual curiosity. They must acquire the analytical skills and logical abilities to conduct scientific research, as well as excellent critical thinking and communication skills. Students should also possess a strong sense of social responsibility and a desire to contribute to human society.

Career Possibilities

What are examples of careers inside and outside of higher education that students might pursue upon completion of their program?

The Medical Sciences Major prepares students for medical or graduate schools, pharmacy schools, physician assistant or dental schools, nursing schools and programs in the allied health sciences (occupational therapy, physical therapy, etc.) A few examples of career paths are listed below:

Clinical (Hospitals, Private practice): Physician (MD), Physician (DO), Physician Assistant (PA), Clinical Pharmacist (PharmD), Dentist (DDS), Clinical laboratory director in Microbiology, Genetics, Pharmacology (PhD), Genetic Counseling.

Academic (Universities and Research Institutes): Clinician Scientist (MD, PhD), Medical Researcher (PhD), Principal Investigator in Medical Research in Microbiology, Biochemistry, Molecular Biology, Physiology, Genetics, Pharmacology (PhD), Research Pharmacist (PharmD).

Corporate (Large companies or startups): Clinician Scientist (MD, PhD), Medical Researcher (PhD), Research and Development in Microbiology, Biochemistry, Molecular Biology, Physiology, Genetics, Pharmacology (PhD)

Government (EPA, FDA, NSF, NIH) Public Health, Environmental or Food and Drug Regulatory Affairs Scientist (MD, PhD), (PhD), NIH or NSF Researcher in Microbiology, Biochemistry, Molecular Biology, Physiology, Genetics, Pharmacology (PhD)

Positions as research assistants in either academic or industrial laboratories, or job opportunities in a community service organization.

Organizational structure

Anil Menon, Ph.D. is the Director of the Undergraduate Major in Medical Sciences Program. The charge of the Program Director is to work with all faculty and staff involved in the program to effectively plan and implement the COM Undergraduate Major in Medical Sciences. The Program Coordinator’s (Beth Preising, MEd) responsibilities include working with the Program Director, program faculty, and student advisors and mentors to assure that the program runs smoothly and fulfills student needs. The Program Academic Advisor’s (Rachel Shah, MEd) responsibilities include making sure that all students are given comprehensive and accurate advising on issues concerning Program, College and University academic requirements and regulations.

One of the greatest strengths of the program is its “organic” and egalitarian structure. The heart of the program consists of some of the very best teachers in the College of Medicine and Cincinnati Children’s Hospital. This group
of exceptionally committed and highly accomplished individuals are members of the Steering Committee, whose charge is to develop and sustain an academic curriculum and experience of the highest quality.

There are four major subgroups of the Steering Committee that have the following responsibilities:

- **Group 1:** Focus on STUDENTS; the goal of this group is to matriculate the best students selected from a national and international set of applicants. Dr. David Wieczorek chairs this group.
- **Group 2:** Focus on CURRICULUM; the goal of this group is to develop an outstanding curriculum in order to comprehensively train students in pre-medicine/public health/research focused on the human body. Drs. Lieberman and Kirley are the co-chairs of this group.
- **Group 3:** Focus on FACULTY TRAINING and Development; the goal of this group is to recruit, develop and retain an outstanding cadre of educators from both the east and west campus. This is accomplished through collaborations with the Office of Medical Education and the Center for the Enhancement of Teaching and Learning.
- **Group 4:** Focus on RESOURCES; the goal of this group is to obtain and maintain sufficient financial and space resources to create and sustain an outstanding program. Dr. Askew is the chair of this group.

The College of Medicine is partnering with the rest of the University of Cincinnati in ensuring that the program is a success. On West Campus the following individuals (and offices, all under the auspices of the Provosts office) are playing a key role in the Medical Sciences major:

- Provosts Office, Dr. Beverly Davenport, Provost
- Office of Undergraduate Affairs, Dr. Gigi Escoe
- Enrollment management (marketing), Dr. Caroline Miller
- Preprofessional Advising Center (PPAC, advisor training), Ms. Sue Roth
- Center for Teaching and Learning (CETL, faculty training), Dr. Bryan Smith
- ProPel (Professional Practice and Experiential Learning, Assessment), Dr. Kettel Cedercruetz.

On the East Campus the following Offices are highly involved in the Medical Sciences major:

- Deans Office, Dr. William Ball
- Department of Medical Education, Dr. Andrew Filak
- College of Medicine Basic and Clinical Departments Organic Group, Dr. Anil Menon
- COM Student Admissions, Dr. Abbigail Tissot
- Cincinnati Children’s Hospital, Dr. James Heubi

The Program teaching faculty, as well as the Department, College and University offices delineated above, are committed to make our students, and the Medical Sciences Program, successful. However, like any academic program, the ultimate measure of success is the development and performance of the enrolled students. Thus, the criteria and milestones assuring student success in the Program are detailed below.

**Successful Completion of the Medical Sciences Major (student requirements)**

The Medical Sciences Program is designed and intended to be completed in four years of full time enrollment (eight semesters, with the possibility of additional courses and experiences in the summer). As the program is dedicated to your success, the following requirements have been established to best prepare you for your future after graduation.
1) Academic Requirements
   a) To remain in good academic standing in the Medical Sciences Major a student must:
      i) Earn a minimum cumulative GPA of 3.0 after the first 2 years, and a minimum cumulative GPA of 2.75 after years 3 and 4
      ii) Earn a grade of C or better in all courses graded A through F
      iii) Earn a grade of “S” in all courses graded “S” or “U”
      iv) Earn a grade of “P” in all courses graded “P” or “F”
      v) Complete all courses in any given academic term with a minimum grade of C, S, or P in order to advance to the next course in a sequence
      vi) Schedule and attend all mandatory meetings designated by the Medical Sciences Major program with the Program Academic Advisor and the Faculty Mentor
   b) To graduate with a degree from the College of Medicine in Medical Sciences an undergraduate must:
      i) Earn a minimum cumulative GPA of 2.75
      ii) Be in good academic standing, as defined above, and not on either academic or disciplinary probation or suspension
      iii) Students must earn at least twenty-five (25) credits from the list of approved elective Major Program courses
      iv) Meet all University of Cincinnati obligations, including all financial responsibilities
   c) To fulfill the requirements for the Bachelor of Science in Medical Sciences degree a student must:
      i) Meet all graduation requirements of the College of Medicine Medical Sciences Major
      ii) Satisfy all requirements (courses, credits, capstone and otherwise) for completion of the degree in Medical Sciences
      iii) Demonstrate the ability to perform in a professional manner as documented by the university faculty, staff, and/or field supervisors
      iv) Demonstrate effective oral and written communication skills as documented by the university faculty, staff, and/or field supervisors
      v) Demonstrate effective reasoning and problem solving skills as documented by the university faculty, staff and/or field supervisors
      vi) Demonstrate a receptive attitude toward learning as indicated by attendance in, and successful completion of, university classes and field experiences
      vii) Prior to graduation students are required to complete an exit evaluation survey for the Medical Sciences Program

2) College of Medicine Deans List: any full-time undergraduate student who earns a grade point average of 3.5 or higher on a 4.0 system and completes 12 credit hours or more during any term earns recognition on the College Dean's list.

3) Graduation with “Latin” Honors: Undergraduate students who are candidates for degree may be recognized by award of the following “Latin” honors based solely on their University Grade Point Average (GPA). The University GPA is based on all coursework taken at the University of Cincinnati. To be eligible for University Latin Honors, students must earn a minimum of 60 semester credit hours at UC. Note that graduation with “Latin Honors” listed below is not related to the University Honors Program (UHP), which has its own, independent criteria for graduation from that program.
   a) Cum Laude: 3.600-3.749
   b) Magna Cum Laude: 3.750-3.899
   c) Summa Cum Laude: 3.900-4.000
If a student, for a variety of reasons, experiences difficulty navigating the Medical Student Major curriculum the following may come into play: academic warning, probation, suspension, and/or dismissal. These topics are covered in more detail in section 2, curriculum, of this handbook.

**Leave of absence from the Medical Sciences Program**

Students who find it necessary to temporarily withdraw from the College of Medicine Medical Sciences Program or who are academically ineligible to continue in the program must request, in writing to the Program Director, a leave of absence, at least 30 days prior to the initial date of the leave, if they desire to return to the program. Such leaves are coordinated through the program academic advisor, and the curriculum committee. Return from a leave of absence is not automatic, and the student must petition the curriculum committee in order to be considered for a return to the program. In cases of a true emergency or unforeseeable circumstances, the Program Director can approve an immediate leave of absence (bypassing the 30 days notice), which will then be referred to the curriculum committee for formal approval.

Withdrawal from individual courses (which is different from a leave of absence from school) is explained at the following website: [http://www.uc.edu/registrar/policies_and_procedures/withdrawal_procedures.html](http://www.uc.edu/registrar/policies_and_procedures/withdrawal_procedures.html)

**Medical Science Program Minor**

In addition to the major program described above, the Medical Sciences program also offers a minor for students in other programs.

Students applying for entry to the Minor in Medical Sciences must be in their sophomore year or above (i.e. students enter the program in their junior or senior year) with a cumulative GPA of 3.0 or above in any UC undergraduate major. Admission to the minor is competitive. Details can be found at the web site below. Individual courses may have specific prerequisites. In order to obtain a minor the following Academic Requirement must be met:

A total of 18 semester credits are needed to satisfy the requirements of the Minor. At least 15 credit hours should be from the courses offered in the College of Medicine (List A) and up to 3 credit hours from the courses offered from other programs (e.g., Biological Sciences, Biomedical Engineering, Chemistry, Health Sciences, or Neuroscience) (List B).

Although most of the courses offered in List A are open to all undergraduate students, some (e.g. laboratory research rotations) may be open only to students admitted into the Minor and Major.

The course director will make the final decision on enrollment.

Information on applying to the minor can be found at [http://meduc.edu/medicalsciences/minor/apply/](http://meduc.edu/medicalsciences/minor/apply/)
Section II: Curriculum

Four-Year Outline of Curriculum

A sample schedule is presented in Appendix A. First year students will be required to participate in Learning Communities, in which the students from the Medical Sciences Major will take core classes together, in the same sections, and will also meet on a regular basis with an upperclassman to discuss their experiences through the freshman year.

It is highly recommended that for students planning on going to medical school that both Sociology and Psychology be taken to help satisfy the general education requirements (both topics are now covered in detail on the MCAT, the medical college admission test).

Advanced Placement Credit

Many students entering the Medical Sciences Major will have accumulated multiple AP credit through advanced courses in high school or community colleges. While every student’s situation is different, some general recommendations concerning these credits are offered below. We are dedicated to your success and have formulated the AP rules listed below to maximize student’s educational success.

1. AP credit in Biology (BIOL1081 and 1082, and associated labs) and Physics PHYS1051 and 1052, and associated labs) will be accepted according to the appropriate university guidelines (follow this link for current guidelines). However, for those students wanting to attend medical school, both biology and physics are examined on the medical college admissions test (MCAT), so the student should decide if their background in these topics will be sufficient to meet the needs of this future examination. Additionally, students should be aware that many medical schools DO NOT accept AP credit. Thus, if a medical school has a college level biology requirement, and a student has not taken a college level biology course, the student may have trouble being accepted by that medical school. If the student decides to take advantage of the biology AP credits the following advanced courses are suggested:
   a. BIOL2001C: Anatomy and Physiology 1
   b. BIOL2002C: Anatomy and Physiology 2
   c. BIOL2081C: Genetics and Cell Structure
   d. BIOL2082C: Evolution, Ecology and Genetics
2. AP credit in Chemistry is not recommended for students in the Medical Sciences major. Freshmen taking organic chemistry have traditionally not done well in the class, and both graduate and medical school admissions committees do not view poor grades in organic chemistry favorably. To ensure student success all freshmen will be advised to take General Chemistry both semesters of freshmen year in order to have a strong foundation for organic chemistry.
3. AP credit in English. The medical sciences major has arranged with the English department to offer required English classes to our majors which focus on scientific writing and interpretation. As the majority of the medical sciences majors will be participating in scientific writing during their undergraduate career it is recommended that students do not utilize their AP credits to opt out of English 1001/1012. However, if they do, the following advanced substitute courses are recommended:
   a. ENGL2089 Advanced Composition (cannot be taken until sophomore year due to 30 credit prerequisite)
   b. ENGL4092 Technical/Scientific Writing (not recommended until after the student has taken ENGL2089)
4. AP credits in history or languages other than English. Students are free to utilize these credits to help satisfy the general education requirements for the major. This will enable the student to have increased free elective time to explore other interests the student may have. The student may also choose to take
advanced courses in psychology and/or sociology, as both of these topics are now prominent on the MCAT exam. Suggested courses include:
  a. PSYC2005 Child and Adolescent development
  b. PSYC2007 Adulthood and aging
  c. PSYC2010 Human Sexuality
  d. PSYC2015 Social Psychology
  e. PSYC2020 Cognition and Learning

5. AP credits for calculus. Students are free to utilize these credits to place out of Calculus (MATH1044). If the student does place out of calculus they will have more free elective time, and may consider either Introductory Psychology (PSYC1001) or Introductory Sociology (SOC1001) at this time.

**Required courses for all students in the major:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1081</td>
<td>Biology 1</td>
<td>3 credits</td>
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<tr>
<td>BIOL1081L</td>
<td>Biology 1 lab</td>
<td>1 credit</td>
</tr>
<tr>
<td>CHEM1040</td>
<td>General Chemistry 1</td>
<td>4 credits</td>
</tr>
<tr>
<td>CHEM1040L</td>
<td>General Chemistry 1 lab</td>
<td>1 credit</td>
</tr>
<tr>
<td>PD1000</td>
<td>Exploring Health Professions</td>
<td>3 credits</td>
</tr>
<tr>
<td>MATH1044</td>
<td>Applied Calculus 1</td>
<td>3 credits</td>
</tr>
<tr>
<td>BIOL1082</td>
<td>Biology 2</td>
<td>3 credits</td>
</tr>
<tr>
<td>BIOL1082L</td>
<td>Biology 2 lab</td>
<td>1 credit</td>
</tr>
<tr>
<td>CHEM1041</td>
<td>General Chemistry 2</td>
<td>4 credits</td>
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<tr>
<td>CHEM1041L</td>
<td>General Chemistry 2 lab</td>
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<tr>
<td>ENG1001</td>
<td>English Composition</td>
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<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG1012</td>
<td>Advanced First Year Composition</td>
<td>3 credits</td>
</tr>
<tr>
<td>MEDS1010</td>
<td>History of Medicine/Technology</td>
<td>3 credits</td>
</tr>
<tr>
<td>MEDS1000</td>
<td>Medical Sciences Freshman Seminar</td>
<td>0 credits</td>
</tr>
<tr>
<td>MEDS1001</td>
<td>Medical Sciences Freshman Seminar</td>
<td>0 credits</td>
</tr>
<tr>
<td>CHEM2040</td>
<td>Organic Chemistry 1</td>
<td>4 credits</td>
</tr>
<tr>
<td>CHEM2040L</td>
<td>Organic Chemistry lab 1</td>
<td>1 credit</td>
</tr>
<tr>
<td>PHYS1051</td>
<td>General Physics 1 (algebra based)</td>
<td>4 credits</td>
</tr>
<tr>
<td>PHYS1051L</td>
<td>General Physics lab 1</td>
<td>1 credit</td>
</tr>
<tr>
<td>MEDS2030C</td>
<td>Biomedical Sciences Lab Techniques</td>
<td>2 credits</td>
</tr>
<tr>
<td>MEDS2000</td>
<td>Medical Sciences Sophomore Seminar</td>
<td>0 credits</td>
</tr>
<tr>
<td>CHEM2041</td>
<td>Organic Chemistry 2</td>
<td>4 credits</td>
</tr>
<tr>
<td>CHEM2041L</td>
<td>Organic Chemistry lab 2</td>
<td>1 credit</td>
</tr>
<tr>
<td>PHYS1052</td>
<td>General Physics 2 (algebra based)</td>
<td>4 credits</td>
</tr>
<tr>
<td>PHYS1052L</td>
<td>General Physics lab 2</td>
<td>1 credit</td>
</tr>
<tr>
<td>ENGL2089</td>
<td>Intermediate composition</td>
<td>3 credits</td>
</tr>
<tr>
<td>MEDS2040</td>
<td>Life in Medicine</td>
<td>3 credits</td>
</tr>
<tr>
<td>MEDS2001</td>
<td>Medical Sciences Sophomore seminar</td>
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</tr>
<tr>
<td>MEDS3020</td>
<td>Intro to Medical Biochemistry</td>
<td>3 credits</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
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<tr>
<td>MEDS4027</td>
<td>Principles of Biochemistry 1</td>
<td>3 credits</td>
</tr>
<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDS4028‡</td>
<td>Principles of Biochemistry 2</td>
<td>3 credits</td>
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</tbody>
</table>
MEDS3060  Interprofessional Education  1 credit
MEDS3000  Medical Sciences Junior Seminar  0 credits
MEDS3021  Fundamentals of Molecular Genetics  3 credits
MEDS3023C  Statistics and Experimental Design  3 credits
MEDS3001  Medical Sciences Junior Seminar  0 credits
MEDS4035  Medical Sciences Journal Club  1 credit

MEDS5030  Biomedical Research Capstone 1  3-6 credits
  OR
MEDS5050  Health and Community Capstone  3-6 credits
MEDS4036  Medical Sciences Journal Club  1 credit
MEDS5031  Biomedical Research Capstone 1  3-6 credits
  OR
MEDS5051  Health and Community Capstone  3-6 credits

Placement in ENG1001 or ENG1012 is dependent on the students writing score on the ACT or SAT exam, or the score in the English Placement Exam.

Electives – Medical Sciences Major

ANAT4051C  Human Gross Anatomy  5 credits
MEDS3022  Human Medical Genetics*  3 credits
MEDS3024C  Medical Microbiology*  3 credits
MEDS3026  Human Physiology*  4 credits
MEDS3027C  Medical Histology  3 credits
MEDS3030  Biomedical Research Rotation  2-6 credits
MEDS3040  Becoming a Master Physician  3 credits
MEDS3050  Health & Community Service Rotation  3-6 credits
MEDS3052C  Informatics for Med Professionals  3 credits
MEDS4021  Clinical Embryology  3 credits
MEDS4023  Immunology  2 credits
MEDS4024  Mechanisms of Signal Transduction  2 credits
MEDS4025  Therapeutic application/molecules  3 credits
MEDS4026  Mechanisms of memory and learning  3 credits
MEDS4029  Fundamentals of Medical Pharmacology*  3 credits
MEDS4030C  Introduction to Stem Cell engineering  3 credits
MEDS4040  Making Medicine Better  5 credits
MEDS4042L  Practice and Community Based Health  3-6 credits
MEDS4051  Introduction to the HIV/AIDS epidemic  1 credit
MEDS4052  Medicine and Public Health at Chongqing  3 credits
MEDS4053  Evidence-based public health  3 credits
MEDS4054  Exploring public health in Ghana  3 credits
MEDS4055  Intensive Medical Spanish and Latino Health  3 credits
Students in the Medical Sciences Major must complete a minimum of 25 credit hours in coursework chosen from the elective list above.

At least two of the four courses labeled with a (*) is required; the student can choose the courses of most interest to them.

* if a student chooses and completes this second Principles of Biochemistry course, only 22 credits, instead of 25 credits, are required for other Medical Sciences elective courses.

Students can also seek permission to use a different course number as a major elective. To do so students should consult with their Faculty mentor in the Medical Sciences Program. If the faculty mentor agrees, the student may then petition the curriculum committee for formal approval.

A sample curriculum is provided in Appendix 1. For students interested in study abroad, see page 16 of this document.

**Good Academic Standing – University of Cincinnati**

All UC undergraduate students must maintain good academic standing with the university in accordance with University Rule 50-1-06. A student is in academic good standing as long as the student's University GPA is 2.0 or greater. Note that the Major in Medical Sciences Program GPA requirements are more stringent than the University requirements (see below).

Please click the link below to review the university’s policy. Falling below a 2.0 GPA and failing to return to academic good standing will result in academic probation followed by academic suspension and dismissal.

[http://www.uc.edu/registrar/policies_and_procedures/undergrad_acad_standing.html](http://www.uc.edu/registrar/policies_and_procedures/undergrad_acad_standing.html)

**Good Academic Standing – College of Medicine Undergraduate Students**

The Medical Sciences major in the College of Medicine is designed to maximize the student’s options for successful entry into a medical or graduate program. In order to remain an undergraduate student in the College of Medicine, and be certified for graduation, students must maintain good academic standing with the college. Students who do not maintain good academic standing in the college are required to meet with the Program Academic Advisor and will receive additional individualized requirements to remain in their major. Failure to meet these requirements, or to return to good academic standing, will result in removal from the College of Medicine. Students removed from the College of Medicine who are in good academic standing with the university can apply for admission to other UC colleges.

Good academic standing for undergraduate students in the College of Medicine Major in Medical Sciences requires a minimum 3.0 cumulative university GPA in the first 2 years, and a minimum cumulative university GPA of 2.75 in the last 2 years.

**Freshmen**

Students who began the program as freshmen and whose GPA is below 3.0 at the end of fall semester of their first year are given an academic warning. To remain enrolled, each student must meet with the Program Academic Advisor prior to the following spring semester. In collaboration with the student’s faculty mentor, the Program Academic Advisor will create certain requirements specific to each individual student, such as to retake a certain
course. Students must adhere to the requirements set by the Program Academic Advisor in order to remain enrolled in their second year. If at the end of the freshman year the student’s GPA is less than 3.0, the student will be placed on academic probation.

**Sophomores**

All students who began the program as freshmen and whose GPA is below 3.0 at the end of spring semester of their first year must acquire a minimum 3.0 GPA by the end of spring semester of their second year. Such students will have been placed on probation, and are in danger of dismissal from the program. Undergraduate students whose GPA remains below 3.0 after their first and second years are subject to dismissal from the program.

Students who are on probation, or academic warning, must follow an academic plan developed by the Program Academic Advisor in consultation with the faculty mentor. Failure to improve the GPA while following this plan can lead to dismissal from the program.

If a student is dismissed from the program the Program Academic Advisor will help the student to find an appropriate major into which to transfer.

Students who are dismissed from the program have the right to appeal the decision (see below).

**Upperclassmen and transfers**

Transfer students and all those completing their second, third, or more years in the college are considered upperclassmen. Upperclassmen who do not meet the requirements detailed above at the end of spring semester of any academic year are subject to probation or dismissal from the Medical Sciences Major. Students can submit a written letter of appeal for readmission to their program. Appeals will be reviewed by the undergraduate curriculum committee during summer to make decisions before the following fall semester. Students whose appeals are granted will be given individualized requirements to remain enrolled in the college during the subsequent year.

**Graduating seniors**

To graduate with an undergraduate degree from the College of Medicine, students must hold a minimum cumulative GPA of 2.75. Students who meet all other degree requirements and who have not been removed from the program must take additional coursework to raise their cumulative GPA to 2.75 in order to graduate with a Medical Sciences Major. See the requirements above for upperclassmen.

**Dismissal and Appeal Process**

At the end of every semester all students are evaluated by the curriculum committee to ensure that they are on track in the program. For those students whose cumulative GPA is below the program minimum before the end of the sophomore year, efforts will be made by the program academic advisor, and faculty mentor, to help the student reach the minimum GPA required. If, however, the 3.0 GPA is not met by the end of the sophomore year the curriculum committee has a number of options, as described below.

One option is to place the student on probation. A defined set of criteria will be developed for the student to improve their GPA such that they can reach good standing within the program. Failure to follow these criteria may lead to dismissal.
A second option is consideration for dismissal from the program. The curriculum committee will meet with the student to understand why the student has had difficulty in the program. After meeting with the student a simple majority vote to dismiss the student is sufficient to remove the student from the program. The Program Academic Advisor will aid the student in transferring to another major within the University.

A student has the right to appeal dismissal from the program. In order to do this, the student must, within 5 working days of notice of the dismissal, inform the Program Director of their intent to appeal the decision (email or written letter are acceptable forms of notice). The Program Director will appoint a committee of five program faculty (one of whom will be designated as a chair, and none of whom are members of the curriculum committee) to hear the appeal within two weeks of the Program Director receiving notice of the appeal. The appeal group will meet with the student, and the chair(s) of the curriculum committee, and then render a decision as to whether the dismissal should be upheld or overturned. If overturned, the appeals committee will provide a list of criteria that the student must meet to stay within the program. The student will work with the Program Academic Advisor, and faculty mentor, to devise a curriculum that will meet the criteria established by the appeals committee to enable the student to regain good standing within the program.

Readmission

Undergraduate students who have been removed from the Medical Sciences major may apply for readmission to return after at least one full academic year away from the program. Students must submit a formal letter of appeal to the undergraduate curriculum committee. The deadline to submit an appeal for readmission to the College of Medicine as an undergraduate student is June 1st.

Students must also submit either a readmission form or a transfer student application depending on their current status. Click the link below to see the university's policies and procedures to apply for readmission.

http://admissions.uc.edu/apply/apply_former-message.html

Grade Replacement Policy

All undergraduate classes can be retaken, and the university has a policy permitting students to select a limited number of grade replacements. It is important to note that both grades will appear on your official transcript, even if one has been replaced by another. The effect of a grade replacement is that your university GPA calculation will no longer factor in the replaced grade.

When graduate and professional programs, including medical schools, receive your official transcript, they often calculate the GPA based on all letter grades, including replaced grades. Medical schools typically calculate grades in science and math courses when considering applications for admission, and these calculations typically include replaced grades.

Grade replacements can greatly help your GPA here at UC. The university's policy is below.

“The UC grade replacement policy allows a student to repeat University of Cincinnati coursework, with the final grade awarded for the most recent class enrollment calculated into the cumulative grade point average rather than the final grade awarded for the original class enrollment. The total number of replaced University of Cincinnati credit hours may not exceed ten (10) semester hours. Students may repeat up to a maximum of four (4) semester courses.”
“To replace a grade, the student must register for the class. The student must also complete a ‘Grade Replacement Application’ form and submit that form by the established deadline for the term to the College office offering the current class. The College will review the grade replacement request and forward approved grade replacements to the Registrar’s Office for processing. This approval process ensures that the requested replacement class is academically appropriate to serve as a replacement for the original class, even if this replacement class is offered by a different UC college or within different term calendars. The grade replacement application is available from the College offices.”

Click the link below for more information and to download the Grade Replacement form.

http://www.uc.edu/registrar/policies_and_procedures/gradeReplacement.html

General Education at UC

All baccalaureate degree programs at UC require completion of the university's General Education (GenEd) program. GenEd ensures that students are well-rounded in both knowledge and skills. GenEd requires students to obtain a Breadth of Knowledge (BoK) in traditional academic disciplines comprised of Diversity and Culture (DC), Social and Ethical Issues (SE), Technology and Innovation (TI), Fine Arts (FA), Historical Perspectives (HP), Humanities and Literature (HU), Natural Sciences (NS), and Social Sciences (SS). GenEd also instills students with critical thinking and other practical skills to analyze information and solve problems. Acquiring these skills begins with foundational courses in English Composition and Quantitative Reasoning. Each program further develops these skills at key touchpoints, which build upon foundations to advance learning. These key touchpoints consist of First Year, Mid-Collegiate, and Senior-Year Experiences (see below).

Click the link below for more information about the university's GenEd program.

http://www.uc.edu/gened.html

General Education at the College of Medicine

The Bachelor of Science in Medical Sciences meets and exceeds the university's GenEd requirements through a carefully planned curriculum of courses and experiences. The curriculum includes several required BoK courses in various areas to instill a strong foundation of knowledge in traditional academic disciplines. These specifically include English composition, applied calculus, biology, chemistry, physics, psychology, and sociology. Students also select a course in either Fine Arts (FA), Historical Perspectives (HP), or Humanities and Literature (HU).

The curriculum builds upon foundations of knowledge to expand students' skills during their time in the program. Not only do the GenEd touchpoints strengthen students' abilities, but also they promote engagement and personal development through completing shared meaningful experiences with an established cohort of students in the major.

First Year Experience

Students in the Medical Sciences major share a variety of experiences during their first year in the program. These are structured around a required Learning Community, and introductory course on health professions.
Learning Community

All students beginning the major as freshmen must enroll in a Learning Community. Learning Communities at the University of Cincinnati are made up of diverse groups of students and faculty who come together because of shared academic interests to interact in two or more university courses. All students beginning as freshmen in the College of Medicine are required to enroll in a Learning Community for the fall and spring semesters of their first year. The Program Academic Advisor can make individual exceptions.

Joining a Learning Community enrolls an individual student in a cluster of classes which are also being taken by other students in their cohort. This ensures that students in the Medical Sciences major will be taking classes together, even if those classes are not taught by the College of Medicine. There are some required meeting times in addition to the regular classes. These are specially designed for the students in your cohort and help ensure that you can engage with your peers in your discipline, helping one another to have a meaningful and successful experience in your program. In addition, participation in the required Medical Sciences Freshman Major Seminar is designed to fulfill some of these same goals.

Click the link below to learn more about Learning Communities at UC.

http://www.uc.edu/fye/learning_communities.html

Exploring Health Professions (PD1000)

All students in the major complete the Exploring Health Professions course during their first year in the program. This course helps students gain a wider and deeper understanding of the variety of health professions and how to most effectively prepare for entry into these professions. Taking this course early in their academic career helps students set long-term goals and make plans with their faculty mentors.

Mid-Collegiate Experience

The mid-collegiate experience of the Medical Sciences Major bridges years 2 and 3 and consists of four specifically required mid-collegiate courses, as detailed below.

Biomedical Sciences Lab Techniques (MEDS2030C)

The biomedical sciences lab techniques course is designed to prepare students for experiences in biomedical research labs, potentially starting as early as the last part of their sophomore year. Prior biology and chemistry laboratory courses at the college level are required for participation in this course. The course is formatted in modules employing equipment and techniques commonly used in biomedical laboratories engaged in cutting edge research. The focus is on methodologies in the fields of biochemistry, molecular genetics, cell biology, and microbiology. In addition to becoming familiar with a range of equipment and techniques in these research disciplines, students will gain experience in: (i) designing their own experiments, (ii) evaluating the data generated, (iii) writing reports describing their results and conclusions in standard scientific format, and (iv) giving presentations to their peers and faculty.

Life in Medicine (MEDS2040)

Students taking this course will come to understand the founding principles and operative tenets of medicine. They will take a journey back in time and hear the words of Hippocrates, Harvey, Osler,
Schweitzer and others who built the foundation of medicine through their visions, teachings and actions. Students will experience history unfolding in the 19th and 20th centuries- a time when medicine began to establish itself as science- and treatment- based. Last, students will test the resilience and translatability of medicine’s “core” in the current landscape of global health needs, access and affordability of care and medical school curricula.

**Interprofessional Education in Health Sciences and Medicine (MEDS3060)**

Students learn about the diversity of health professions and the benefits of interprofessional endeavors. Students gain an appreciation of the interdisciplinary team approach to the delivery of modern healthcare. Guest experts will describe health professions including medicine, nursing, pharmacy, genetic counseling, and supportive therapies, and discuss the impact of these fields.

**Statistics and Experimental Design for the Biomedical Sciences (MEDS3023C)**

Statistics and Experimental Design for the Biomedical Sciences is a practical course that will equip students with a solid foundation and intuitive understanding of experimental design and statistical analysis for the biomedical sciences. The course emphasizes experimental design and power analysis, parametric and nonparametric statistics used in making between-group inferences, linear and nonlinear regression used in modeling physiological phenomena, effective data presentation, and graphic integrity. The course covers statistical concepts and methods, which are among the competencies tested in the MCAT exam.

**Capstone Experience**

The year-long senior capstone sequence is the culminating experience of the undergraduate major in Medical Sciences. The senior capstone will deploy the skills students have developed through the mid-collegiate experiences in a project facilitated by a faculty member. Each student selects one of two pathways, focusing either upon research or service. Students will work with their faculty mentor to develop a project ranging from 3 to 6 credit hours per semester.

**Biomedical Research Capstone 1 and 2 (MEDS5030 and MEDS5031)**

The Biomedical Research Capstone sequence exposes students to the rigors and excitement of original biomedical research. The sequence is designed to give a highly personalized laboratory research experience to students who are interested in biomedical careers by matching them with some of the best and most accomplished scientists in the College of Medicine and Cincinnati Children’s Hospital Medical Center. Students will work closely with their laboratory faculty advisor to develop a hypothesis and research plan, receive the necessary laboratory and compliance training, troubleshoot in the laboratory, analyze and interpret data, and prepare written and oral reports. Students who have started a research project in their sophomore or junior years may continue with their same mentor for their capstone project.

**Health & Community Capstone 1 and 2 (MEDS5050 and MEDS5051)**

Students will work closely with the UC Center for Community Engagement to develop an individual community service project that will provide meaningful service to a community organization relevant to human health. This type of experience will improve student academic performance in the medical sciences.
through the application of critical thinking skills, while simultaneously enhancing civic and ethical responsibility, cultural competency and career development.

**University Honors Program (UHP)**

The UHP is a university-wide program offering enrichment to undergraduate students through experiential, reflective, integrative and interdisciplinary learning. The UHP recognizes that there are many outstanding, high achieving undergraduates who are not admitted to the program as incoming freshmen. We encourage interested UC students to apply to the UHP through the transition admission process during their first or second year. Learn more at [http://www.uc.edu/honors/prospective/transition.html](http://www.uc.edu/honors/prospective/transition.html).

**Opportunities for Academic and Professional Development**

Applying for a prestigious fellowship will advance a student professionally and personally, and it signals to future employers that a student has the vision, transformational thinking skills, and drive to make significant contributions wherever their career takes them.

UC’s Office of Nationally Competitive Awards (NCA) ([http://www.uc.edu/nca.html](http://www.uc.edu/nca.html)) is a resource for outstanding students who wish to compete for these highly competitive fellowships. We encourage students to meet with us in their **freshman year** to identify appropriate opportunities and to receive guidance on developing themselves as competitive candidates. Contact [nca@uc.edu](mailto:nca@uc.edu) to schedule an appointment.

Examples of competitive opportunities include:

- Recognition of research achievements—the **Goldwater Scholarship** is awarded to highly qualified sophomores and juniors who aspire to a PhD-level, research-focused career and provides up to $7500 for undergraduate study.

- Recognition of leadership potential and commitment to the public good—the **Truman Scholarship** is awarded to students in their third year who are committed to careers in public service (including medical careers); it provides up to $30,000 for graduate or professional school.

- Enhancement of medical education through a complementary graduate degree—the **Rhodes, Marshall, Mitchell** and **Fulbright** awards fully fund graduate study at universities in the UK and are awarded to students with outstanding records of academics, leadership, and community service.

**University of Cincinnati College of Medicine**

**R.O.S.E. Program**

**Research|Observation|Service|Education**

- Early assurance acceptance into University of Cincinnati College of Medicine (UCCoM)
- Two consecutive summers of paid research internships with UCCoM faculty research mentors
- Specialty shadowing experiences
- Community- and medically-based service experiences
- Medical and biomedical lectures, professional development activities, journal clubs, and other UCCoM programming
- Advising by UCCoM
Eligibility requirements in order to apply:

- Sophomore or Junior undergraduate
- Completed one year of biology with labs
- Completed one year of chemistry with labs
- Completed at least 1 semester of organic chemistry with lab
- Ohio resident, or resident of select Indiana or Kentucky counties that receive reciprocity

*The application will open in November each year*

To access more ROSE Program information and the application, please visit: [http://med.uc.edu/rose](http://med.uc.edu/rose)
If you have questions, please contact hs2md@uc.edu

**Study Abroad experiences**

The Medical Sciences Major, in its elective offerings, offer a number of courses for which part of the course is conducted in another country, such as MEDS4052 and MEDS 4054. It is anticipated that more such offerings will become available as the major develops. Summers are good opportunities for learning overseas, and such experiences can be coordinated through the Program Academic Advisor and the International office at UC. More information can be found at the following website:

[http://www.uc.edu/international/study-abroad.html](http://www.uc.edu/international/study-abroad.html)
Section III: Advising, Mentoring, and the Individual Development Plan (IDP)

Advisors

A full time Program Academic Advisor in the Medical Sciences Department will be available to monitor student progress and fulfillment of programmatic requirements. This program academic advisor will have the complete records of each student and will determine if the curricular milestones are met.

Mentors

Faculty mentors will work with each student to develop Individual Development Plans (IDP). Meetings with the faculty mentor will help the student to define career goals along with developing a set of objectives (IDP) that include curricular and extracurricular activities that will help the student to achieve these goals.

Peer Mentor advising is comprised of students from the Medical Sciences program who can help new students adjust to UC as well as share their experiences dealing with the academic rigor of the program.

Medical or Graduate student mentors will be available to mentor students as to the preparation for, and their own experiences with, post-graduate studies. Mentors are designated as M1, for a medical student mentor, R1 for a medical resident mentor, G1 for a graduate student mentor, and P1 as a post-doctoral mentor.

IDP

The planning meetings with mentors and advisors are intended to help you define your long-term goals and develop short-, mid- and long-term plans to achieve these goals. This is intended to help you:

- Take ownership of your training and professional development.
- Pause and reflect! Amidst daily classroom activities, it is easy to lose sight of longer-term goals.
- Think intentionally about your short-, mid- and long-term training and development goals.
- Identify and use resources to help you achieve your goals.
- Have open and direct dialogue with your advisor(s).
- Establish clear expectations/steps.

This will include completing a draft of the IDP form and discussing your plan with mentors and advisors during the school year. It is expected that the IDPs become progressively ambitious each successive year reflecting the skills/experiences necessary to be successful upon graduation.

There are a specific set of rules and guidelines for completing the IDP. The exact due dates will vary every year, and will be communicated to students via the IDP form, a sample of which is attached as Appendix 2 of this handbook.
Section IV: Medical Sciences Major Facilities (East Campus) and Student Resources

Classrooms and Laboratory

The courses for the Medical Sciences major may be taught in any classroom within the Medical Sciences Building (MSB), but most will be in newly renovated space on the “E” level of MSB. This suite of classrooms consists of three classrooms and four small breakout rooms.

The laboratory space for MEDS2030C is located on the “G” level of the Cardiovascular (CVC) building.

Student Meeting Spaces

There are many meeting rooms within the College of Medicine, many of which can be reserved for students through the program coordinator. The “E” level suite of classrooms also has meeting space for students, as well as in the University Hospital cafeteria. Program students should be aware that there are certain study spaces dedicated for Medical Student use. These include the study suites (G401 and 1310), the 5 individual rooms outside of the suites (G501, G502, 1120 A&B [on the “patio” above the library] and 1401), and the free-standing “huts” in the Care-Crawley MSB open atrium area.

Program Academic Advisor and Program Coordinator locations

The program academic advisor and program coordinator are located in the Medical Sciences Building. Once the classroom renovations are complete on “E” level, both offices will be in the vicinity of the new classrooms and meeting rooms that were established for this program.

Library and Bookstore

The Health Sciences Library is found on the “E” level at the junction of the Medical Sciences Building and the CARE building. The library contains a computer lab with approximately 100 stations for student use. The Health Sciences Library printers are equipped with swipe technology for students to use their Bearcat cards for copies.

The medical sciences bookstore is across the hall from the library. Medical Sciences majors have access to both of these facilities.

General information about the Health Sciences Library can be found at the following website: http://www.libraries.uc.edu/hsl/about.html

Suggestions/comments from Program students about services or facilities that might be made available to them by the Health Sciences Library are welcomed.

Food

East campus contains a Starbucks and a Subway restaurant, both of which accept the Bearcat card for payment. (see http://www.uc.edu/bearcatcard.html). The University Hospital Cafeteria is adjacent to the Starbucks, and also contains a Mark Pi fast Chinese takeout stand and Au Bon Pain. These last three establishments do not accept the Bearcat card. In close proximity to the Medical Sciences Building/University Hospital are Children’s Hospital cafeteria and Chipotle. There are a wide variety of food establishments on west campus, and in the area immediately surrounding west campus (Calhoun, Short Vine, and McMillan streets).
Recreational facilities

UC recreation operates the UC recreation center in the basement of the CARE building. The facility is open to all UC students, and more information can be found at the following link: Rec Center. The west campus recreation center is also described in the link.

University Health Services (UHS)

UHS has two convenient locations to serve UC students. The East (Medical) campus location is on the 4th floor of the Holmes Hospital Building and the phone number is 513-584-4457. The West (Main) campus location is on the 3rd floor of the Richard E. Lindner Center, next to Nippert Stadium, and the phone number is 513-556-2564. More information is available at http://www.uc.edu/uhs/ (see UHS section under general UC resources in the next section of the handbook).
Section V: General Information about UC

Undergraduate Code of Conduct and Professional Behavior

As a student at the University of Cincinnati you are required to follow the Undergraduate Code of Conduct, and as a representative of the Medical Sciences program, are also expected to exhibit Professional Behavior at all time.

1. **Code of Conduct**: All undergraduate students in the Medical Health Sciences major are expected to follow the university’s Student Code of Conduct. Please refer to [http://www.uc.edu/conduct/Code_of_Conduct.html](http://www.uc.edu/conduct/Code_of_Conduct.html) for further information.

2. **Professional Behavior**: Professional behavior is required at all times and without exception. Failure to follow Program guidelines, the exhibition of unprofessional behavior such as profanity, student initiated confrontations, classroom disruptions, consistent lateness, cheating and/or lying; violations of Program policies; the exhibition of unethical behavior and/or the exhibition of unsafe behavior in the classroom, lab or community setting, or inappropriate interactions with office or hospital patients, will result in a meeting between the student involved, the faculty, and possibly the student’s academic advisor or the Director of Student Affairs. The consequences of consistent unprofessional or unsafe behaviors may vary from remediation and counseling up to dismissal from the program as deemed appropriate and necessary by the majority of the program faculty.

3. **Academic Honesty**: Academic honesty is expected of each student. Academic dishonesty is a serious offense and cannot be tolerated in an academic community. Dishonesty in any form, including cheating, plagiarism, deception of effort or unauthorized assistance, may result in a failing grade in a course and/or suspension or dismissal from the major, and the University, as determined by appropriate programs, departments, centers, and/or university committees.

4. While students are referred to the University of Cincinnati’s Code of Conduct for additional information, students should be aware that the following are behaviors that shall be considered academically dishonest:
   a. Aiding or abetting academic dishonesty. Knowingly helping, procuring or encouraging another person to engage in academic dishonesty.
   b. Cheating: any dishonesty or deception in fulfilling an academic requirement. This may include:
      i. using unauthorized material during an examination (tapes, notes, tests, etc.);
      ii. obtaining assistance with or obtaining answers to examination questions from another person with or without that person’s knowledge;
      iii. furnishing answers or examination questions to another person;
      iv. possessing, using, distributing or selling unauthorized copies of an examination;
      v. representing as one’s own an examination taken by another person;
      vi. taking an examination in place of another person
      vii. obtaining unauthorized access to the computer files of another person or agency and/or altering or destroying those files.
c. Plagiarism:
   i. submitting another’s published or unpublished work, in whole, in part, or in paraphrase, as one’s own work without fully and properly crediting the author with footnotes, citations or bibliographical reference;
   ii. submitting as one’s own original work or material, material obtained from another individual or agency;
   iii. submitting as one’s own original work, material that has been produced through unacknowledged collaboration with others.

5. If a faculty member has compelling evidence of a student engaging in academic misconduct, he/she will inform the student immediately of the alleged misconduct and provide the student the opportunity to respond. The faculty member may assign a failing grade in the course and, if appropriate, recommend additional sanctions by the University of Cincinnati. A letter will be sent from the faculty member to the student describing the action(s) taken. Copies of the letter will be sent to the Dean and the Director of Student Affairs of the college in which the misconduct occurred, and the Dean, the Director of Student Affairs of the student’s home college, and the Program Director. Further action by the Dean or the university will be determined according to the University of Cincinnati’s Student Code of Conduct.

6. For help in reporting conduct incidents, the University ombudsman may be consulted. Information concerning this office can be found at the following link: ombuds.

Financial Aid

Financial aid to students can be found at the following link: financial aid. Students enrolled in the Medical Sciences Major pay tuition and fees for “uptown” students. The linked page also has sections detailing how to apply for aid, and to find scholarships to help fund your education. In addition to tuition, there are certain fees that all students are expected to pay (general fee, campus life fee, ITIE [instructional technology and instructional equipment] fee). Information about fees can be found at the following link: fees.

The weblink http://financialaid.uc.edu/aid.html is the homepage for financial aid, and offers a large amount of information on how to finance your college education. In particular, if you plan on taking classes in the summer it is important to contact financial aid as soon as possible to discover options for financing that part of your education. Aid for the summer is limited, and is not automatic (see http://financialaid.uc.edu/summeraid.html).

Disability Accommodations

Students with disabilities are eligible to receive a variety of support services. In order to receive academic accommodations, students must be registered with the Office of Disability Services and have an accommodation form that lists in-class and test accommodations. Accommodation forms must be presented to course instructors during the first week of class. Questions may be directed to the Office of Disability Services on West Campus at 210 University Pavilion (556-6823). Please also see the following non-discrimination policy of the University of Cincinnati: http://www.uc.edu/about/policies/non-discrimination.html

For more information on the services available through the Office of Disability Services, go to the following link: disability services.
Information Technology at UC

Information concerning information technology at IT can be found at the following link: IT. This includes student email, software discounts, UC’s wireless network (campus-wide), and device support. In particular, The University of Cincinnati provides each student with a unique username, and an email account (someone@mail.uc.edu). Email account activation will be explained at orientation. All official UC notifications and Medical Sciences Major notifications will go to your UC email account. Students are expected to check their University email accounts daily. Students living on campus will have their computers scanned for viruses by central IT at their first connection to the UC network (see the IT link above).

Student ID’s

Student ID’s are issued at the Keys/ID’s office in the Edwards Center. Student IDs are required for various rights/privileges, including but not limited to: student discount at the bookstore, printing from computer labs, tickets to University sporting events, etc. Students are advised to carry their student ID with them at all times while on campus.

University Police

For emergencies dial 911. The University of Cincinnati provides campus safety services and crime prevention. Other services include lost/found and reporting/crime statistic documentation. Police main headquarters are at:

Three Edwards Center
51 West Corry Street
Cincinnati, Ohio 45221-0215.
Non-emergency phone numbers are:
556-1111 (West Campus) or 558-1111 (East/Medical Campus).

The University of Cincinnati is required by federal legislation to publish and disseminate certain information annually. The Right to Know website presents facts about the Drug-Free Campus, safety and security information, retention and graduation rates.

The Right to Know website can found at the following link: http://www.uc.edu/righttoknow.html.

Parking Services

Parking services maintains the parking facilities and sells parking passes to students, faculty and staff. Students are encouraged to purchase their parking passes as early as possible for best selection. Parking may be purchased via the web at the following link: parking, or in person at the following office:

Four Edwards Center
University of Cincinnati
P.O. Box 210624
Cincinnati, OH 45221-0624
University Health Services

University Health Services (UHS) provides primary care to all registered University of Cincinnati students. In addition to primary care services, on-site specialty care is available in athletic injuries, gynecology, dermatology, orthopedic, internal medicine and mental health. Other on-site campus services include: laboratory, pharmacy, x-ray services, allergy injections and an international travel clinic. A doctor is on call 24 hours a day to advise students should an emergency arise when UHS is closed. All physicians are board certified. The UHS website is: www.uc.edu/uhs/.

University Health Services-West
Richard E Lindner Center, 3rd floor
Phone: 556-2564/ After hours: 584-7777
8:30 am-4:30 pm Monday, Tuesday, Thursday, Friday
9:30 am-4:30 pm Wednesday

University Health Services-East
Holmes Hospital Building, 4th floor
Phone: 584-4457/ After hours: 584-7777
8:00 am-4:30 pm Monday-Friday

University of Cincinnati Insurance Office

All students and their dependents enrolled for six or more credit hours at the University of Cincinnati are eligible for the Student Health Insurance Program. All international students on F-1 or J-1 visas are required to have health insurance. **All students are required to be covered by adequate health insurance. Students will be enrolled in the plan unless they submit a waiver card to verify similar or better coverage through other insurance.**
The fee is assessed two times a year (Fall and Spring). An additional fee is assessed to students who request optional insurance for their dependents.

Richard E Lindner Center, 3rd floor
Phone: 556-6868/Fax: 556-6655
http://www.uc.edu/uhs/student_health_insurance.html
University of Cincinnati
PO Box 210010
Cincinnati, OH 45221-0001
Bookstores

The University has two on-campus bookstores, one in the CARE building on East Campus, and the other in Tangeman Center on West campus. Information about the bookstores can be found at the following link: bookstores.

University Library System

The University Libraries have a number of locations across both campuses, the two major ones being Langsam Library on west campus, and the Medical Sciences Library on east campus. Langsam Library also contains UCIT@Langsam, a 24 hour computer lab open to all University citizens. More information about the libraries can be found at the following link: libraries.

Recreational Facilities

The University has two locations of its recreation centers, one at the Recreation Center on west campus, and the other in the basement of the CARE building on East campus (the campus which includes the College of Medicine). These facilities are open to students and members (students do not pay a fee). Students have easy access to the facility, and can get some exercise before, in between, or immediately after classes on the east campus. More information about these facilities is available at the link: Recreational facilities.

Traveling between campuses

The University runs a number of shuttles between the University campuses, as well as student-funded shuttles to downtown areas. More information about the shuttles, and how to access their schedules on your mobile device, can be found at the link: shuttles.

Public Safety

The University of Cincinnati takes the safety of its students, faculty and staff very seriously. Information one what students should do to stay safe on campus, and off-campus, can be found at the following link: safety.

Student Activities and Leadership Development

Many students become active in student organizations, and as their college career progresses, become officers of various student organizations (including student government). Information concerning such activities can be found at the following link: student activities.

Medical Sciences Major Student Government

In order to generate a sense of community for majors and minors in Medical Sciences the students have organized a government structure, via which all students can have a voice. This organization holds an introductory meeting for all students early in the fall semester. The officers of the organization, for the 2015-2016 academic year, are:
President: Alex Balboa
Vice-President: Kathryn Green
Secretary: Conor Schroeder
Service Activities: Logan Borgelt
Social Media (Facebook and Twitter): Kayla Krekeler
Social Activities: Savannah Glenn
Public Relations: Lauren Crossman

The "Official" Facebook Page can be found at https://www.facebook.com/uccom.medical.sciences

The Facebook group for students can be found at https://www.facebook.com/groups/172448342953332/

The Twitter feed can be found at https://twitter.com/UCCOM_MedSci
### Fall Semester | First Year

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<thead>
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<td>Biology I Laboratory NS</td>
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<tr>
<td>CHEM 1040</td>
<td>General Chemistry I NS</td>
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<tr>
<td>CHEM 1040L</td>
<td>General Chemistry I Laboratory NS</td>
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<td>MATH 1044</td>
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<td>PD 1000</td>
<td>Exploring Health Professions SE, FYE</td>
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Total Credit Hours 15

Notes: Begin speaking with faculty mentor and academic advisor about research, service, volunteering, and international opportunities.

### Spring Semester | First Year

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<td>MEDS 1001</td>
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Total Credit Hours 15

Notes:

### Fall Semester | Second Year

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<tr>
<td>MEDS 2030C</td>
<td>Biomedical Sciences Lab Techniques MC</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 1051</td>
<td>General Physics I NS, QR (algebra-based)</td>
<td>4</td>
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<tr>
<td>PHYS 1051L</td>
<td>General Physics I Laboratory NS, QR</td>
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<tr>
<td>PSYC 1001</td>
<td>Introduction to Psychology SS</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours 15

Notes:

### Spring Semester | Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2041</td>
<td>Organic Chemistry II NS</td>
<td>4</td>
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<tr>
<td>CHEM 2041L</td>
<td>Organic Chemistry II Laboratory NS</td>
<td>1</td>
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<tr>
<td>ENGL 2089</td>
<td>Intermediate Composition EC</td>
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<tr>
<td>MEDS 2001</td>
<td>Medical Sciences Sophomore Seminar</td>
<td>0</td>
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<tr>
<td>MEDS 2040</td>
<td>Life in Medicine MC</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1052</td>
<td>General Physics II NS, QR (algebra-based)</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1052L</td>
<td>General Physics II Laboratory NS, QR</td>
<td>1</td>
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</tbody>
</table>

Total Credit Hours 16

Notes:

**General Education Designations:** EC- English Composition | FA- Fine Arts | HP- Historical Perspective | HU- Humanities & Literature | NS- Natural Sciences | QR- Quantitative Reasoning | SE- Social & Ethical Issues | TI- Technology & Innovation | FYE- First Year Experience | MC- Mid-Collegiate Experience

Consult with your Medical Sciences academic advisor for questions about your degree requirements.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDS 3000</td>
<td>Medical Sciences Junior Seminar</td>
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</tr>
<tr>
<td>MEDS 3020</td>
<td>Introduction to Medical Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>MEDS 3021</td>
<td>Fundamental of Molecular Genetics</td>
<td>3</td>
</tr>
<tr>
<td>◊ MEDS 3024C*</td>
<td>Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>◊ MEDS 3026*</td>
<td>Human Physiology</td>
<td>4</td>
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<td>Free elective</td>
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</table>

**Fall Semester | Third Year**

**Total Credit Hours** 13-16

**Notes:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDS 4023*</td>
<td>Immunology</td>
<td>2</td>
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<tr>
<td>MEDS 4035</td>
<td>Medical Sciences Journal Club</td>
<td>1</td>
</tr>
<tr>
<td>MEDS 4053*</td>
<td>Evidence-Based Public Health</td>
<td>3</td>
</tr>
<tr>
<td>MEDS 5030 or MEDS 5050</td>
<td>Biomedical Research Capstone I or Health &amp; Community Capstone I</td>
<td>3-6**</td>
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<tr>
<td>Free Electives</td>
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<td>0-6</td>
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</tbody>
</table>

**Fall Semester | Fourth Year**

**Total Credit Hours** 12-18

**Notes:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>◊ MEDS 4029*</td>
<td>Fundamentals of Medical Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>MEDS 4036</td>
<td>Medical Sciences Journal Club</td>
<td>1</td>
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<tr>
<td>MEDS 4051*</td>
<td>Introduction to the HIV/AIDS Epidemic</td>
<td>1</td>
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<tr>
<td>MEDS 5031 or MEDS 5051</td>
<td>Biomedical Research Capstone II or Health &amp; Community Capstone II</td>
<td>3-6**</td>
</tr>
<tr>
<td>Free Electives</td>
<td></td>
<td>0-6</td>
</tr>
</tbody>
</table>

**Spring Semester | Third Year**

**Total Credit Hours** 15

**Notes:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDS 3001</td>
<td>Medical Sciences Junior Seminar</td>
<td>0</td>
</tr>
<tr>
<td>◊ MEDS 3022*</td>
<td>Human Medical Genetics</td>
<td>3</td>
</tr>
<tr>
<td>MEDS 3023C</td>
<td>Statistics and Experimental Design MC</td>
<td>3</td>
</tr>
<tr>
<td>MEDS 3040*</td>
<td>Becoming a Master Physician</td>
<td>3</td>
</tr>
<tr>
<td>MEDS 3052C</td>
<td>Informatics for the 21st Century Med. Prof.</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1001</td>
<td>Introduction to Sociology SS</td>
<td>3</td>
</tr>
</tbody>
</table>

**Spring Semester | Fourth Year**

**Total Credit Hours** 11-17

**Notes:**

*Italicized* course numbers are suggestions and can be replaced with courses from the list of approved major courses. Complete a minimum of 25 credits from the list.

◊ All students must complete at least two of the following major electives: MEDS 3024C, MEDS 3022, MEDS 3026, MEDS 4029.

** Select either Biomedical Research Capstone or Health & Community Capstone. Each capstone is 3-6 credits per semester.

Consult with your Medical Sciences academic advisor for questions about your degree requirements.

UC requires students to have a minimum of 120 credit hours to graduate.
The Individual Development Plan (IDP) provides a process to identify realistic education and career goals, reflect on personal and cognitive development, and assess academic progress. The IDP also serves as a communication tool between students and their advisor/faculty mentor, and provides regular progress review to promote ongoing identification of strengths, opportunities for improvement, and strategies to optimize education success.

Through the IDP process, you will learn to:

- Take ownership of your education and professional development.
- Pause and reflect! Amidst daily activities, it is easy to lose sight of your interests, goals, and values.
- Think intentionally about your short- and long-term development goals.
- Identify and use resources to help you achieve your goals.
- Have open and direct dialogue with your advisor/faculty mentor.
- Establish clear expectations/steps.

Completing your IDP

1. **Step back and self-assess!**
   It’s easy to lose sight of the bigger picture. Completing your IDP is a starting point for you to think about your goals, values, interests, and choices.

2. **Meet with your academic advisor and faculty mentor.**
   You are responsible for meeting with both your academic advisor and your faculty mentor each semester. Sharing your IDP with your faculty mentor can help facilitate your discussions.

3. **Lead the discussion.**
   The IDP covers topics students have previously found helpful. If you have questions or additional objectives related to your undergraduate studies or career plans, these meetings are a great time to bring them up.

4. **Follow up.**
   After discussing your goals with your academic advisor, make sure to reflect on the steps discussed. Your IDP is not meant to be a static document— you should revisit it often to track your progress, revisit goals, and reassess your plans.

Name:  
ID: M  
Date:  

*insert current photo here*
UC College of Medicine | B.S. Medical Sciences
Individual Development Plan

Complete the following **before** meeting with your academic advisor and faculty mentor.

Are you:  ____ Living on/around campus  ____ Commuting

Are you in:  ____ University Honors Program  ____ Connections/Dual Admissions

Are you a:  ____ Cincinnatus Scholar  ____ Darwin T. Turner Scholar

Are you planning to apply to:  
SURF  ____ Yes  ____ No  ____ Unsure
ROSE  ____ Yes  ____ No  ____ Unsure

What are your plans after graduation?

____ Allopathic medical school (MD)  ____ Osteopathic medical school (DO)  ____ MD/PhD program
____ Dental school  ____ Optometry school  ____ Graduate school
____ Other:  

When do you plan on graduating (semester & year)?  

List any minors/certificates you are interested in:  

List any organizations (on or off campus) you are involved in.  

What are you most looking forward to this coming year?  

What are you most concerned about this coming year? How are you planning on handling it? What resources/support do you anticipate needing?
Pause and reflect on what experiences you would like to have this year. How do you want to engage with those around you? How do you want to spend your time?

**Service.**
What service/volunteering did you do in high school? What are you doing now? What do you want to do in the future (what are your interests? is there a specific population you want to serve?)

**Shadowing.**
Have you done any shadowing before? Are you doing any shadowing now? What kind of shadowing do you want to do in the future (what are your interests? do you want to shadow in a specific area of medicine or at a specific location?)

**Research.**
Did you participate in research during high school? Are you doing research now? What research do you want to participate in (do you have a specific area of research you want to become involved in?)
Identify 1-2 goals for this academic year and start thinking about how you will accomplish them. Then, working with your advisor, discuss specific steps you will take this year to reach those goals.

You may want to think about...

- What resources or support do you need?
- How will you manage your time?
- How do these goals reflect your values and interests?
- What barriers or challenges do you anticipate having to work through?
- How will these short-term goals help you reach your long-term goals?

Please come to your academic advising meeting prepared to discuss your goals with your academic advisor.

<table>
<thead>
<tr>
<th>Year 1 Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start volunteering</strong></td>
</tr>
<tr>
<td>Find a health-related service opportunity.</td>
</tr>
<tr>
<td><strong>Get Involved</strong></td>
</tr>
<tr>
<td>Join clubs/organizations on or off campus.</td>
</tr>
<tr>
<td><strong>Start shadowing</strong></td>
</tr>
<tr>
<td>Find a shadowing opportunity.</td>
</tr>
<tr>
<td><strong>Plan for Research</strong></td>
</tr>
<tr>
<td>Start thinking about when you want to start research. What areas interest you?</td>
</tr>
<tr>
<td><strong>Honors</strong></td>
</tr>
<tr>
<td>If you are in the Honors Program, think about how you will complete your Honors experiences.</td>
</tr>
<tr>
<td><strong>Academics</strong></td>
</tr>
<tr>
<td>Let your academic advisor know if you are interested in a minor or certificate.</td>
</tr>
<tr>
<td><strong>SURF</strong></td>
</tr>
<tr>
<td>Apply to SURF in November if you want to participate over summer.</td>
</tr>
<tr>
<td><strong>NCA</strong></td>
</tr>
<tr>
<td>Look into Nationally Competitive Awards and let staff know if you are interested.</td>
</tr>
</tbody>
</table>

Notes: