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UNIVERSITY OF DAYTON PRE-HEALTH RESOURCE CENTER

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University of Dayton
Premedical Programs

PREMEDICAL PROGRAMS

Who we are
WHAT WE DO

Premedical Programs is home to the Premedicine and Predentistry majors. Our students meet regularly with specialized academic advisors and participate in a variety of healthcare related services and programs.

UNDERSTANDING THE MAJOR

The Bachelor of Science in Premedicine (MED) or Predentistry (DEN) is an interdisciplinary curriculum of study, distinctively designed to provide a biomedical science-based education as a preparation for admission to health professional schools including medical, dental, physician assistant, veterinary, and chiropractic. Courses in biology, chemistry, mathematics, and physics comprise the science core of the major. A complement of humanities and social sciences courses are also required. The curriculum is flexible and can be tailored to suit personal interests and career aspirations. Students can easily add a minor as well as general electives to the MED or DEN major to expand the focus of their undergraduate education.

SERVICES AND PROGRAMS

The Pre-Health Resource Center (PHRC) provides support to students in preparation for health professional school. Services include:

- Clinical volunteering and shadowing opportunities,
- Professional development courses,
- Application workshops,
- Speakers, DAT/MCAT prep, and more.

From beginning to end, faculty assists students in planning their individual journey toward successful matriculation to medical, dental, PA or other health professional school. This includes planning clinical and service activities and preparing for the application process, obtaining letters of evaluation, practice interviewing and meeting with health professional school representatives during their campus visits. The Pre-Health Resource Center is here to support each student's journey beginning day one of the first year and ending with a handshake on the graduation stage.



➡ ANNUAL GRANTS AND SCHOLARSHIPS

The **Dr. Stephen E. and June H. Szabo** grants provide students with financial support for service or research experiences during the summer break. Applications are available through the Pre-Health Resource Center.

Everhard, Szabo and **Michaelis Scholarships** are available to students who have completed their sophomore year. Students apply for these scholarships and the funds are applied to their student account the following year. Students with respectable GPA's are generally successful in securing a scholarship.

PREMEDICAL PROGRAMS ADVISING

In addition to the director and associate director of Premedical Programs, there are 22 full time faculty members who are "premed advisors." All MED/DEN majors are assigned to a premed advisor. These advisors provide academic and career related advising. Additional career preparation activities are provided by the Pre-Health Resource Center.

Premed advisors help students navigate the university and major requirements necessary to complete the degree and provide information about university policies and procedures, and resources. They help students develop their semester schedule to satisfy degree requirements and meet prerequisites for health professional schools. For students applying to medical school, dental school, or other graduate programs that require letters of recommendation, the advisor is responsible for writing a composite letter that is sent as part of the application. Both the premed advisor and the Pre-Health Resource Center staff are valuable resources for information about careers in healthcare.

PREMEDICAL PROGRAMS ADVISORS

Elizabeth Rhoads, Director, Laurel Monnig, Associate Director, Mohamed Ahoujja (Physics), Justin Biffinger (Chemistry), Loan Bui (Biology), Madeleine DeBeer (Chemistry), Garry Crosson (Chemistry), Karolyn Hansen (Biology), Madhuri Kango-Singh (Biology), Carissa Krane (Biology), Matthew Lopper (Chemistry), Angela Mammana (Chemistry), Mark Nielsen (Biology), Margie Pinnell (Engineering), Pothitos Pitychoutis (Biology), Constance Pope (Biology), Lis Regula (Biology), Aaron Sathyanesan (Biology), Julie Simon (Mathematics), Amit Singh (Biology), Todd Smith (Physics), Yvonne Sun (Biology), Katerina Tsouma (Biology), Thomas Williams (Biology), Shirley Wright (Biology).

FIRST YEAR

FIRST TERM

DEPT.	NO.	TITLE	CR
BIO	151	Concepts of Biology	3
BIO	151L	Concepts of Biology Lab	1
CHM	123	General Chemistry	3
CHM	123L	General Chemistry Lab	1
MTH	148	Introductory Calculus	3
		Humanities Commons	3
		ENG 100 or 198	
ASI	150	First Year Seminar	1

TOTALS

15

SECOND TERM

DEPT.	NO.	TITLE	CR
BIO	152	Concepts of Biology	3
BIO	152L	Concepts of Biology Lab	1
CHM	124	General Chemistry	3
CHM	124L	General Chemistry Lab	1
MTH	149	Introductory Calculus	3
		Humanities Commons	6
		REL 103, PHL 103	

TOTALS

17

SECOND YEAR

FIRST TERM

DEPT.	NO.	TITLE	CR
CHM	313	Organic Chemistry	3
CHM	313L	Organic Chemistry Lab	1
PHY	201	General Physics	3
PHY	201L	General Physics Lab	1
ENG	200	Writing Seminar II	3
HST	103	Humanities Commons	3
MTH	207	Statistics	3

TOTALS

17

SECOND TERM

DEPT.	NO.	TITLE	CR
CHM	314	Organic Chemistry	3
CHM	314L	Organic Chemistry Lab	1
PHY	202	General Physics	3
PHY	202L	General Physics Lab	1
CMM	100	Oral Communication	3
MED	299	Sophomore Seminar	1
SSC	200	CAP Integrated Social Science	3

TOTALS

15

THIRD YEAR

FIRST TERM

DEPT.	NO.	TITLE	CR
---	---	Social Science	3
CHM	420	Biochemistry	3
CHM	420L	Biochemistry Lab	1
---	---	Science Elective 1	3
---	---	English Elective	3
---	---	Inquiry/Social Science	3
---	---	Clinical Experience	1

TOTALS

17

SECOND TERM

DEPT.	NO.	TITLE	CR
---	---	Science Elective 2	3
---	---	Science Elective 3	3
---	---	Arts	3
---	---	Practical Ethical Action	3
MED	480	Capstone	1

TOTALS

13

FOURTH YEAR

FIRST TERM

DEPT.	NO.	TITLE	CR
---	---	Science Elective 4	3
---	---	Science Elective Lab	1
---	---	Diversity/Social Science	3
---	---	Adv PHL or REL	3
---	---	Adv Historical Studies	3
---	---	General Elective	1

TOTALS

14

SECOND TERM

DEPT.	NO.	TITLE	CR
---	---	Science Elective 5	3
---	---	Science Elective Lab	1
---	---	Faith Traditions	3
---	---	Integrative	3
---	---	General Elective	3

TOTALS

13

TOTAL = 120



University of Dayton
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THE MED/DEN CURRICULUM SCIENCE COURSES

SCIENCE REQUIREMENTS

General Chemistry I & II with labs
General Chemistry I & II with labs
Organic Chemistry I & II with labs
Physics I & II with labs
Biochemistry and lab
Calculus I and II
Statistics

M D P T
M D P T
M D P T
M D P T
M D T
M
P T

SCIENCE ELECTIVES: In addition to the science requirements listed above, students select 5 biomedical science elective lecture courses and 2 labs from the following list:

Microbiology
Physiology
Molecular Biology
Evolution and Development
Neurobiology
Biology of Infectious Disease
Molecular Biology
Cancer Biology
Cell Biology
Comparative Vertebrate Anatomy
Virology
Developmental Biology
Genetics
Human Anatomy
Immunology
Biochemistry I and II
Medicinal Chemistry
Physical Chemistry

P T
P T

P T
P

M Usually or always required for medical school
D Usually or always required for dental school
P Usually or always required for PA school
T Important for preparing for MCAT

NON-SCIENCE COURSES

English Composition and Oral Communication: CMM 100 and ENG 100 and 200, or 200H, M and one 300 or 400 level course in English.

Humanities Base and Historical Study:

HST 103 or 198, REL 103 or 198, PHL 103 and one approved course in historical studies or ASI 111, 112.

Arts Study: One approved course from arts study.

Philosophy and Religious Studies: Two courses in philosophy and/or religious studies. One PHL/REL elective must be an ethics course.

Social and Behavioral Sciences: SSC 200 and nine hours from anthropology, economics, political science, psychology and/or sociology.

COMMON ACADEMIC PROGRAM (CAP)

The Common Academic Program (CAP) is an innovative curriculum designed for all UD undergraduates. CAP requires you to take courses that will broaden and deepen your understanding of the world and the people around you and lead you to think critically about it. Many CAP requirements are satisfied by the courses outlined on this page. Depending on student selection of courses, there may be additional CAP requirements to be completed.

GENERAL ELECTIVES: The MED/DEN major has significant flexibility for students to take courses of their choosing in addition to the major and CAP requirements. Students take from 12-18 credits of general elective. These credits can also be used to complete a minor.

APPROVED CLINICAL EXPERIENCE

All MED/DEN majors are required to complete one approved Clinical experience. The following courses incorporate an approved clinical experience in conjunction with one of our community partners.

MED 210 Premedical Community Experience

This course focuses on healthcare for under-served populations and the broader context around social and health inequalities. Students learn skills required to perform volunteer functions at an open clinic, complexities of providing healthcare to under-served populations and develop interpersonal skills to be empathetic and informed patient advocates. Prerequisite: Sophomore status.

MED 220 Hospital Elder Life Program

This course provides an opportunity to volunteer with HELP at Miami Valley Hospital. HELP is designed to improve the hospital experience for older patients. Students will be trained to carry out bedside interventions and experience a high level of patient contact and responsibility. Pre-semester training required. Prerequisite: Sophomore status.

MED 230 Predental Community Experience

This course focuses on healthcare for under-served populations and provides students with the broader context around social and health inequalities. Students meet most weeks of the semester and shadow and volunteer at a local dental clinic. Prerequisite: Sophomore status.

MED 339 International Medical Experience

Exploration of global health issues in preparation for an international experience with a partnering organization. Students apply through Global and Intercultural Affairs Office and comply with requirements specific to the travel location and partnering organization. Prerequisite: SPN 101 (may be taken concurrently) or equivalent language placement.

CAPSTONE

All MED/DEN majors must complete MED 480 Premedical Programs Capstone. This seminar provides an opportunity for students to reflect upon the approved clinical experience they have completed and engage in learning activities that further the students' understanding of their chosen vocation. Students present a poster regarding this learning at the annual University of Dayton & Miami Valley Hospital Healthcare Symposium.

A minimum of 120 credits are required for the B.S. in Premedicine or Pre dentistry.

SCIENCE AND MATH CORE	45 semester hours
HISTORICAL STUDY	6 semester hours
SCIENCE ELECTIVES	17 semester hours
ARTS	9 semester hours
COMMUNICATION/ENGLISH	12 semester hours
SOC/BEHAVIORAL SCIENCES	12 semester hours
PHILOSOPHY/RELIGIOUS STUDIES	12 semester hours
GENERAL ELECTIVE	14 or more semester hour
SOPHOMORE SEMINAR	1 semester hour
APPROVED CLINICAL EXPERIENCE	1 semester hour
CAPSTONE	1 semester hour

ADDITIONAL CLINICAL OPPORTUNITIES:

- **Miami Valley Hospital Job Shadowing**— Students have the opportunity to shadow healthcare professionals in departments such as Endoscopy, Interventional Radiology, Emergency Medicine and Heart and Vascular Procedures at Miami Valley Hospital.
- **PA Shadowing** — Pre-Health Resource Center coordinates shadowing opportunities at Premier Health locations and other area providers.
- **Veterinarian Shadowing** — Shadowing opportunities are coordinated with animal hospitals in the Dayton area.
- **Medical Scribe Training** — A one credit course trains students in medical scribing and offers the opportunity to work as a medical scribe in the Dayton area.

UD RESEARCH LABS



Many students volunteer in natural science faculty labs and participate in faculty mentored research while attending UD. Students are encouraged to visit with science faculty to learn about their research programs. Departmental websites also provide descriptions of faculty research. Our faculty have been recently awarded research funding from the following sponsors, among others: American Heart Association, National Institutes of Health, National Science Foundation, Naval Research Laboratory, Department of Defense, NASA, US Air Force, US Army.

STUDENT ORGANIZATIONS RELEVANT TO MEDICINE, DENTISTRY AND HEALTH:

- **Alpha Epsilon Delta (AED)** — national pre-professional health honor society. AED provides a diverse array of speakers, community and campus service and health professional shadowing opportunities.
- **Healing Hearts** — students are assigned a volunteer experience at a local hospital.
- **Dental Interest Group (DIG)** — pre-professional group for students interested in dentistry.
- **American Red Cross Club** — a student-led chapter of the American Red Cross.
- **University of Dayton Emergency Medical Services (UD EMS)** — state certified ambulance squad serving the UD community with emergency medical services.
- **Active Minds** — a student group that advocates for mental health awareness at UD.
- **Multicultural Association of Pre-Medical Students (MAPS)** — MAPS' mission is to increase the number of underrepresented minority students going to medical school and increase the number of clinically excellent, culturally competent, and socially conscious physicians.
- **Pre-PA Club** — an interest group for students interested in pursuing a career as a Physician Assistant.
- **Pre-Chiropractic Club** — an interest group for students interested in chiropractic medicine.
- **Pre-Pharmacy Club** — an interest group for students interested in pharmacy.
- **Pre-Veterinary Club** — an interest group for students interested in veterinary medicine.



MEDICAL SCHOOL ACCEPTANCES

	MED	BIO	CME*	HSS*	BCM*	OTHER	TOTAL
2023 Applied	31	14		3	3		51
2023 Accepted	23	14		3	2		42 (82%)
2019-2023 Applied	139	63	4	16	13	4	239
2019-2023 Accepted	105	45	3	13	10	2	178 (75%)



DENTAL SCHOOL ACCEPTANCES

MAJOR	DEN	BIO	OTHER	TOTAL
2023 Applied	6	1	2	9
2023 Accepted	5	1	2	9 (100%)
2019-2023 Applied	38	8	5	51
2019-2023 Accepted	28	6	3	37 (73%)

*CME = Chemical Engineering | HSS = Integrative Physiology Concentration | BCM = Biochemistry



For more information about Premedical Programs email premed@udayton.edu, or visit the Pre-Health Resource Center in 375 Science Center.



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