



University Council

April 11, 2025

UNIVERSITY CURRICULUM COMMITTEE – 2024-2025

Susan Sanchez, Chair

Agricultural and Environmental Sciences – Kylee Duberstein

Arts and Sciences – Casie LeGette (Arts)

Paula Lemons (Sciences)

Business – Karen Aguar

Ecology – Amanda Rugenski

Education – Amy Murphy

Engineering – David Stooksbury

Environment and Design – Katherine Melcher

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Forestry and Natural Resources – Richard Chandler

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Law – Joe Miller

Medicine – Erica Brownfield

Pharmacy – Michelle McElhannon

Public and International Affairs – Ryan Powers

Public Health – Tamora Callands

Social Work – Jennifer Elkins

Veterinary Medicine – Paul Eubig

Graduate School – Rodney Mauricio

Ex-Officio – Provost S. Jack Hu

Undergraduate Student Representative – Ella Colker

Graduate Student Representative – William Walker

Dear Colleagues:

The attached proposal from the College of Pharmacy for a Minor in Cancer Therapeutics will be an agenda item for the April 18, 2025, Full University Curriculum Committee meeting.

Sincerely,

Susan Sanchez, Chair

cc: Provost S. Jack Hu

Dr. Marisa Pagnattaro

PROPOSAL FOR MINOR PROGRAM OF STUDY

1. **Date:** March 17, 2025
2. **School/College:** College of Pharmacy
3. **Department/Division:** Pharmaceutical and Biomedical Sciences
4. **Minor Name:** Cancer Therapeutics
5. **CIP:** 26091100
6. **Proposed Effective Date:** Fall 2025
7. **Which campus(es) will offer this program?** Athens
8. **Program Description:**

The proposed Minor in Cancer Therapeutics aims to provide undergraduate students with a core understanding of cancer biology, treatment modalities, and emerging therapeutic strategies, including personalized medicine. This program is designed to enhance students' understanding of cancer research, clinical trials, and drug development, equipping them with the knowledge and skills relevant to careers in biomedical research, healthcare, and pharmaceutical sciences. By integrating the latest advancements in cancer therapeutics, this minor prepares students, particularly those pursuing graduate or professional health education, for future contributions to oncology and translational medicine.

The Minor in Cancer Therapeutics is being proposed in response to strong student interest and the extensive faculty research expertise within the College of Pharmacy. Currently, the University of Georgia does not offer a major or minor dedicated to Cancer Therapeutics. The Department of Pharmaceutical and Biomedical Sciences is a highly interdisciplinary unit with expertise spanning biomedical sciences, molecular pharmacology and pharmaceuticals, drug discovery and delivery, protein engineering, and medicinal chemistry. The department has established itself as a leader in cancer research, with a strong focus on cancer biology, cancer therapeutics, cancer drug development, and cancer chemoprevention. Faculty members are actively engaged in cutting-edge studies on cancer epigenetics, angiogenesis, tumor growth, gene therapy, targeted drug delivery, biomarkers, and novel therapeutic strategies, positioning the department at the forefront of translational oncology research.

As of Fall 2024, 270 students were enrolled in the Pharmaceutical and Biomedical Sciences (B.S.) degree program, demonstrating a strong demand for specialized education in this field. It is notable that the University of Georgia Cancer Center is led by a faculty member from the Department of Pharmaceutical and Biomedical Sciences, further highlighting the department's leadership in cancer research at UGA. The department is home to eleven faculty members conducting active cancer research, with several supported by funding from the National Institutes of Health (NIH)/National Cancer Institute (NCI) and the Department

of Defense (DOD). This federal support underscores the department’s research excellence and its critical role in advancing cancer therapeutics. These well-funded research initiatives provide a strong foundation for a thriving cancer research ecosystem, further supporting the development of cancer-focused educational programs, including this proposed minor.

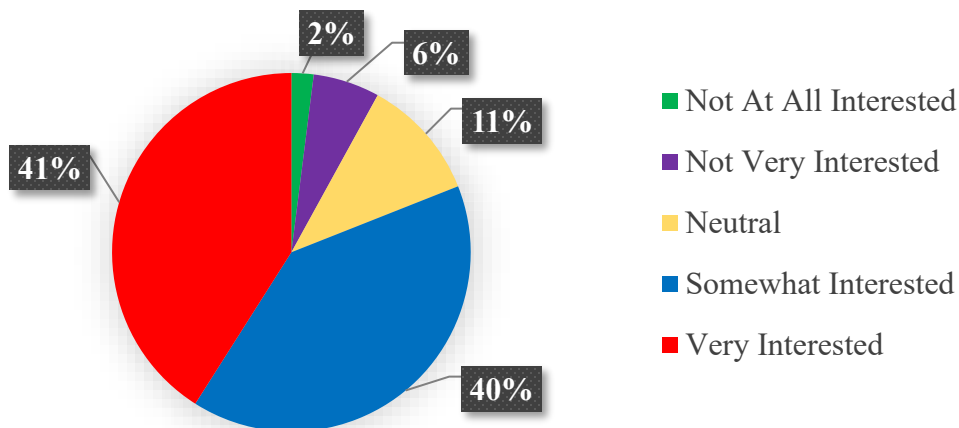
Student Interest and Demand

The department has offered PHRM(PMCY) 4000/6000, The War on Cancer, to undergraduate students for a number of years, and this course has been well received by students.

Student Enrollment	
PHRM(PMCY) 4000/6000, The War on Cancer (3 hours)	
<i>Semester</i>	<i>Number of Enrolled Students</i>
Fall 2024	24
Spring 2024	42
Spring 2023	N/A*
Spring 2022	N/A*
Spring 2021	43
Spring 2020	49

*Due to the departure of the primary instructor, the course was not offered during the spring 2022 and spring 2023 terms. The College has resumed offering the course since spring 2024 and plans to offer the course at least once per year.

To gauge student interest in a potential Minor in Cancer Therapeutics, a Qualtrics survey was administered to all students in the undergraduate major in Pharmaceutical and Biomedical Sciences (B.S.) as well as students enrolling in the Spring 2024 semester section of PHRM(PMCY) 4000/6000. One hundred and forty-four (144) completed surveys were received. Of these, 81% of respondents indicated they would be somewhat or very interested in a new minor in Cancer Therapeutics (Cancer Biology) with the College of Pharmacy if one were offered.



9. Program of Study/Requirements:

Include prefixes, numbers, and titles of required courses, as well as total credit hours (must be 15-18 hours). Include any residency requirements or grade requirements.

A Minor in Cancer Therapeutics requires six (6) hours of required coursework and nine (9) hours of electives for a total of fifteen (15) hours. All chosen courses used to satisfy the minor requirement must be completed with a grade of “C” (2.0) or higher.

Required Courses (6 hours)

PMCY 2020, Pills, Potions, and Drugs in Modern Medicine (3 hours)

PHRM(PMCY) 4000/6000, The War on Cancer (3 hours)

Elective Courses (9 hours)

A minimum of 6 hours must be upper-division (3000-level or above). Students must choose at least two elective courses within the College of Pharmacy.

Recommended Electives – College of Pharmacy

PHAR(PMCY) 4010E, Introduction to Drugs, Biologics, and Devices Regulated by the Food and Drug Administration (3 hours)

PHRM(PMCY) 4830-4830L, Specialty Pharmacy (2 hours)

PMCY 3200, Introduction to the Pharmaceutical Sciences (3 hours)

PMCY 4020/6020, Human Physiology (3 hours)

PMCY 4150/6150, Human Pathophysiology (3 hours) – **NEW**

PMCY 4300/6300, Medicinal Chemistry (3 hours)

PMCY 4410E, Robotic Technology in Drug Discovery and Toxicology (2 hours)

PMCY 4600/6600, Biological Therapeutics (3 hours)

PMCY 4800/6800, Human Pharmacology (3 hours)

Recommended Electives – Other

BCMB 3433, Biology for Medicine (4 hours)

BCMB 4120/6120, Human Biochemistry and Disease (4 hours)

BIOL 2900, Clinical Applications of Biological Sciences (1 hour)

BIOS 2010, Elementary Biostatistics (4 hours)

BIOS 3000, Intermediate Biostatistics for Public Health Sciences (3 hours)

CBIO 3400, Cell Biology (4 hours)

CBIO(MIBO)(IDIS) 4100/6100-4100D/6100D, Immunology (4 hours)

CHEM 4120, Chemistry of Drug Design and Drug Action (3 hours)

ECOL 3820, Evolutionary Medicine (3 hours)

GENE 4500/6500, Human Genetics (3 hours)

GENE 4540/6540, Cancer Genetics (3 hours)

INFO 2000, Experiential Data Science Specialization – Foundations (3 hours)

STAT 4210, Statistical Methods (3 hours)

VPAT 4000/6000, On the Origins of Disease (3 hours)

VPHY 3100, Elements of Physiology (3 hours)

VPHY 4200/6200, Physiologic Basis of Diseases (3 hours)

VPHY(KINS) 5690/7690, Skeletal Muscle and Mitochondria Physiology (3 hours)

Other courses chosen in consultation with advisor

Total = 15 hours

Documentation of Approval and Notification

Proposal: Minor in Cancer Therapeutics

College: College of Pharmacy

Departments: Pharmaceutical and Biomedical Sciences

Proposed Effective Term: Fall 2025

School/College:

- College of Pharmacy Associate Dean, Dr. Duc Do, 2/3/2025
- Head of the Department of Pharmaceutical and Biomedical Sciences, Dr. Yaguang Xi, 3/7/2025

Use of Course Approvals:

- Head of the Department of Genetics, Dr. Michael Arnold, 3/16/2025
- Head of the Department of Biochemistry and Molecular Biology, Dr. Adam Barb, 3/17/2025
- Head of the Department of Kinesiology, Dr. Jamie Cooper, 4/8/2025
- College of Veterinary Medicine Interim Associate Dean for Undergraduate Affairs and Head of the Department of Physiology and Pharmacology, Dr. Gaylen Edwards, 3/10/2025
- Undergraduate Coordinator for the Department of Genetics, Dr. Jonathan Eggenschwiler, 3/16/2025
- Biomedical Physiology Program Director, Dr. Paul Eubig, 3/10/2025
- College of Engineering Assistant Dean, Dr. Mable Fok, 3/12/2025
- Interim Head of the Department of Statistics, Dr. Daniel Hall, 3/11/2025
- Associate Head of the Department of Epidemiology and Biostatistics, Dr. Andreas Handel, 3/7/2025
- Head of the Department of Pathology, Dr. Jesse Hostetter, 4/7/2025
- Undergraduate Coordinator for the Department of Cellular Biology, Dr. Kim Klonowski, 3/20/2025
- Head of the Department of Cellular Biology, Dr. James Lauderdale, 3/19/2025
- Head of the Department of Chemistry, Dr. Jason Locklin, 3/11/2025
- Director of the Division of Biological Sciences, Dr. Kristen Miller, 6/13/24
- Mary Frances Early College of Education Associate Dean, Dr. Stacey Neuharth-Pritchett, 4/7/2025
- Odum School of Ecology Associate Dean, Dr. Pejman Rohani, 3/7/2025
- Head of the Department of Epidemiology and Biostatistics, Dr. Ye Shen, 3/7/2025
- Instructor, Department of Pathology, Dr. Elizabeth Uhl, 3/7/2025