

Resolution 2018-2019.D

Resolution to Approve New Major, Medicinal Chemistry, in Bachelor of Science in Chemistry

Recommended by the Commission on Undergraduate Studies and Policies

First Reading: March 25, 2019

Second Reading:

Faculty Senate:

Staff Senate:

Graduate Student Assembly:

Student Government Association:

Approved by University Council:

Approved by the President:

First Effective Date to Declare Major: Fall 2019

First Effective Date to Graduate: Winter 2021

WHEREAS, medicinal chemistry has attracted significant recognition among the academic and research communities of science, technology, engineering and mathematics (STEM) as a vitally important and thriving interdisciplinary field; and

WHEREAS, medicinal chemistry is an increasingly important aspect of health sciences as demonstrated by multiple major international conferences each year and steady increases in Federal research resources (e.g., from National Science Foundation, National Institutes of Health, National Cancer Institute, etc.) directed to colleges and universities; and

WHEREAS, drug discovery (in which medicinal chemistry plays a central role), is a large and rapidly increasing sector of American research and development, with total domestic R&D expenditures exceeding \$70 billion (2017 data) and rapidly growing by approximately \$5 billion annually since 2013, providing new substances for the diagnosis and treatment of the entire spectrum of human disease; and

WHEREAS, medicinal chemistry is a cornerstone activity of the Virginia Tech Center for Drug Discovery (VTCDD), an academic research enterprise comprising over 50 faculty members spanning thirteen academic departments as well as the Biocomplexity Institute, the Virginia College of Osteopathic Medicine, and the Fralin Biomedical Research Institute; and

WHEREAS, the Chemistry Department in particular has established a premium international reputation in the area of medicinal chemistry and drug discovery; and

WHEREAS, the creation of the Major in Medicinal Chemistry will establish an additional educational path for students in the Bachelor of Science in Chemistry who desire a program that spans both physical sciences and health sciences and that will prepare them well for employment in the private sector (from the many small startups to giants like Pfizer and Merck), for

employment in government agencies, and for graduate study in medicinal chemistry and allied fields; and

WHEREAS, only five universities in the Eastern United States and Canada (none within the Great Commonwealth of Virginia) presently offer undergraduate majors in medicinal chemistry;

THEREFORE, LET IT BE RESOLVED that the Major in Medicinal Chemistry be approved for addition to the Bachelor of Science in Chemistry effective Fall 2019 and the proposal be forwarded to the President for approval.