The University Senate of Michigan Technological University
Proposal 23-21
(Voting Units: Academic)

Proposal to Change Degree Title from "Cheminformatics" to "Computational Chemistry and Chemical Informatics"

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Department of Chemistry
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1.General description and characteristics: This proposal is to change the title of the "Cheminformatics" B.S. degree program to "Computational Chemistry and Chemical Informatics."

2. Proposed new title: "Computational Chemistry and Chemical Informatics"

3. Rationale: There are two key rationales for the title change. First, the new name more accurately captures the breadth and balance of faculty expertise, course offerings, and research opportunities for undergraduates in the department by explicitly identifying computational chemistry as well as chemical informatics as core areas of learning for this major. Over the last few years the department has added several new faculty who have a strong focus on computational chemistry, while they and other faculty also have expertise in chemical informatics.

Second, the proposed title is expected to be more recognizable and appealing to students interested in a range of fields, including computer science and data science. With the creation of the new College of Computing and related Tech Forward initiative Data Revolution and Sensing, we hope to attract new students to this major, for which our department has capacity in which to grow. Students majoring in this degree program need only one additional course to satisfy the requirements of a computer science minor. A new introductory course in Computational Chemistry and Chemical Informatics has been added to the curriculum as a welcoming introduction to a broader student population. We note, in addition, that Chemical Informatics is a more modern name instead of the dated, and often less familiar name, Cheminformatics.

Chemical Informatics is used by universities:

Indiana University has a certificate program in Chemical Informatics
https://www.indiana.edu/academics/degrees-majors/degree/chemical-informatics-crt-iu-bloomington-chminfgcrt

also

the leading journal of the American Chemical Society in the subject is named Journal of Chemical Information and Modeling https://pubs.acs.org/journal/jcisd8, and by research groups e.g. http://glaros.dtc.umn.edu/gkhome/project/cheminfo/overview and https://www.nist.gov/mml/csd/chemical-informatics-group.

All current students will complete the program with the current name, but no new students will be enrolled in the current degree name once the new name has begun.

4. Related programs: Illinois Tech has BSc in Computational Chemistry and Biochemistry
https://www.iit.edu/academics/programs/computational-chemistry-and-biochemistry-bs

UC Berkeley has concentration Computational Chemistry
https://chemistry.berkeley.edu/ugrad/degrees/chem/computational-chemistry

Heriot-Watt University in the UK has BSc in Computational Chemistry
https://www.hw.ac.uk/uk/study/undergraduate/chemistry-bsc.htm

Bristol University in the UK has BSc in Chemistry and Scientific Computing
https://www.bristol.ac.uk/study/undergraduate/2021/chemistry-with-scientific-computing/

Loughborough University has BSc in Chemistry with Computing
 https://www.lboro.ac.uk/study/undergraduate/courses/a-z/chemistry-with-computing-bsc/

5. Projection of number of students NA
6. Curriculum design NA
7. New course description NA
8. Model schedule NA
9. Library and learning resources NA
10. Equipment NA
11.Program costs NA

12. Accreditation requirements. No additional accreditation requirements.

13. Planned implementation. Fall 2021

Approved by Dept. of Chemistry faculty:
Approved by CSA Dean:
Approved by Dean's Council:
Approved by the University Senate:
Approved by Provost: