# INTERESTED IN COMPUTATIONAL SCIENCE?

Computational modeling and simulation are indispensable tools in nearly every field of science and engineering. People trained in Computational Science find themselves in very high demand, especially for the most exciting, leading edge work. Computational Science integrates elements that are normally studied in different parts of the traditional curriculum, but which are not fully covered or combined by any one of them. But where can you go to learn the essentials of this truly interdisciplinary field?

The **Interdisciplinary Graduate Minor in Computational Science (IGMCS)** offers students an opportunity to acquire the balanced package of knowledge and skills they need to use computationally intensive methods. Through the IGMCS, graduate students can augment their graduate work in their chosen field with courses from other disciplines that are specifically tailored to round out their education in Computational Science.

## COMPUTATIONAL SCIENCE:
## INHERENTLY INTERDISCIPLINARY
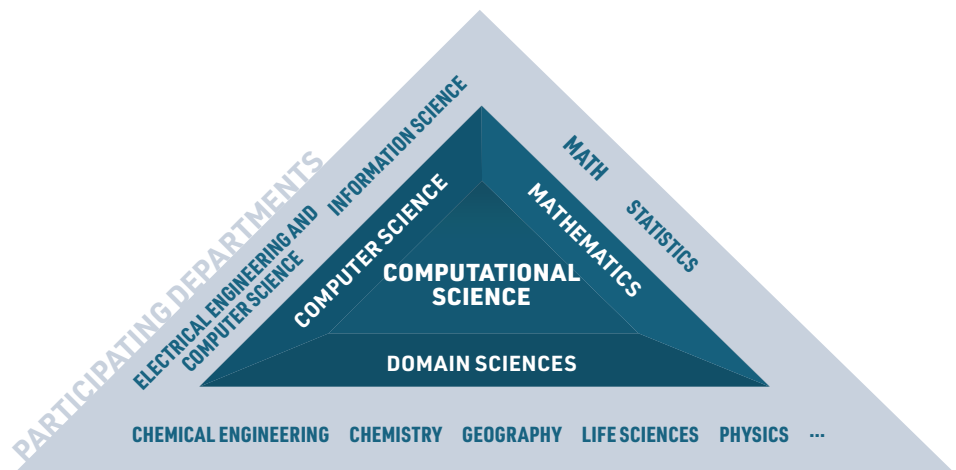


IGMCS

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Phone: (865) 974-8295
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For more information, including program requirements and course listings:

**http://igmcs.utk.edu/**

# IGMCS

The **Interdisciplinary Graduate Minor in Computational Science (IGMCS)** enables a student to obtain a minor in Computational Science simultaneously with a graduate degree, at either the Masters or PhD level. Computational Science demands a basic level of understanding and skill in three discipline clusters — Mathematics, Computer/Information Science, and a "Domain Science," such as Physics, Geography, Biology, Chemical Engineering, etc. With guidance from participating faculty and departments, the IGMCS program allows students seeking an advanced degree in one of these areas to put together a small set of courses and internships tailored to their needs and which fills out their understanding of Computational Science in a way that suits their particular background and advances their particular goals. By formally recognizing this work through a Minor in Computational Science, the IGMCS program is designed to increase the value of the graduate degree that students receive in their chosen field.

## COURSE REQUIREMENTS

The Minor requires a combination of course work from three disciplines - Computer Science, Mathematics, and a participating Science/Engineering domain (e.g., Chemical Engineering, Chemistry, Physics).

For students pursuing a Master's degree, 9 total hours of approved IGMCS courses are required consisting of 3 hours within the home discipline and 3 hours from each of the other two disciplines. For example, a student whose home department is Computer Science must complete 3 hours of approved Computer Science courses and 3 hours of approved courses in each of the other two discipline groups (Mathematics and domain science/engineering).

For students pursuing a PhD degree, 15 total hours of approved IGMCS courses are required, consisting of 6 hours within the home discipline and 9 hours from the other two disciplines (with a minimum of 3 hours from each). For example, a student whose home department is Physics must complete 6 hours of approved Physics courses and 9 hours of approved courses from Computer Science and Mathematics (with a minimum of 3 hours from each).

| Degree | Hours required in home discipline | Hours required from two other disciplines | Total Hours |
|---|---|---|---|
| IGMCS at Master's Level | 3 | 3 in each | 9 |
| IGMCS at PhD Level | 6 | 9 (at least 3 in each) | 15 |

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