

Review of Bioinformatics Certificate
Department of Computer and Information Science
School of Science

1. Are the goals clear and achievable?

“The objective of the proposed graduate certificate program in bioinformatics is to develop in the student skills and knowledge of the computer science fundamentals and an ability to apply these to practical problems as it relates to bioinformatics. Another objective is to provide an integrative experience by applying to a complex problem of a practical nature the theory and skills learned in the course work.”

This certificate fits very well with the department’s mission to provide service course programs—and judging from the letters of support from community businesses, it will meet current needs for a more technically sophisticated workforce. Given that the certificate program relies on existing courses and faculty, the goals seem quite achievable.

2. Is the program academically sound?

This certificate requires 12 credits of coursework, including 3 credits of core (genetics/molecular biology); introduction to bioinformatics (required of all students), and the selection of 6 additional credits from 4 courses in database systems, data mining, etc. These courses seem to fit very well together, while allowing the student some customization based on personal goals. The academic standards are clear, and a timeline is in place for program completion.

3. Are faculty resources available to offer this certificate without undercutting other key missions of the unit?

Clearly, there are plenty of qualified faculty available to teach the courses—its not as clear what the effect on workload would be for these faculty—are these students in addition to the Master’s students, or will they come from the Master’s ranks? Five students won’t stretch the resources, but is there an upper limit to enrollment, beyond which resources would be stretched?

4. Is there overlap, either real or potential, with any other unit that could harm the program or be exploited to help the program?

Letters from other schools and programs indicate strong support for the certificate.

I think the certificate program should be approved, with some additional information about the anticipated student body.