**Bioinformatics**

**DESCRIPTION**

The rapid expansion of genomic information and the databases that contain various types of sequence and structural data has resulted in the field of bioinformatics, contributing an increasingly important role in the study of a diverse array of biological and biomedical problems. To solve these problems, more biological scientists and health and information professionals require familiarity with modern bioinformatics resources and protocols to perform their professional duties more efficiently and to gain additional insight into the applications of genomic information. The diverse array and magnitude of available genomic information challenges scientists to translate this data into new discoveries. Whether the need is academic or professional, familiarity with modern bioinformatics-based analyses has become an essential component of most genomic and proteomic studies. This certificate provides both biological scientists and information technologists with the necessary coursework for a broad understanding of the principles of bioinformatics and their application to different biological and biomedical problems.

**COURSE LOCATION/DELIVERY**

This Certificate is offered at the Tampa campus.

**ADMISSION REQUIREMENTS**

Applicants must hold an earned bachelor's degree from a regionally accredited college in any of the biological sciences or information systems or computer science with a minimum 3.0 GPA. In addition, the applicant must have:

* A minimum undergraduate GPA of 3.0 on a 4.0 scale
* Quantitative and qualitative skills as demonstrated by completion of courses in biology, chemistry and computer science.
* GRE scores can be used to demonstrate qualitative and quantitative skills

Or, GRE scores at or above the 50th percentile, taken within five years preceding the application.

**PREREQUISITES**

n/a

**REQUIREMENTS**

A total of 14 credit hours are required. Three core classes:

* GMS 6066 - Principles of Molecular Medicine (4)
* BCH 6886 - Fundamentals of Structural Bioinformatics (4)
* GMS 7930 - Applied Bioinformatics (3)

**ELECTIVES**

Select elective from the following list.

* BSC 6932 - Computational Biology (3)
* PHC 6050 - Biostatistics I (3)
* BCH 6746 - Structural Biology (3)
* GMS 7930 - Python Programming for Bioinformatics (3)

**AVERAGE TIME LIMIT FOR COMPLETION**

Two years.

**CREDIT TOWARD GRADUATE DEGREE**

Up to 12 credit hours

**STANDARDIZED TESTS**

Standardized tests are not required for admission to the graduate certificate program. However, the GRE is required for admission to the graduate degree program.

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