Certificate in Advanced Computer Programming
Department of Computer and Information Sciences
Indiana University South Bend

Goal:

Students who successfully complete the certificate will have full command of a modern programming language; be able to analyze computational problems and create algorithms to solve them; be able to design, write, debug, and document well modularized programs to implement these algorithms; and be able to work comfortably with the standard data structures and algorithms; be able to conduct systems analysis and design, and implement small and medium scale database management systems to support the information needs of an organization.

Requirements:

This certificate requires completion of the following seven courses with a grade of C- or better. At least six of these courses must be taken at IU South Bend.

C101 Computer Programming I (4 credits)
C151 Multiuser Operating Systems (2 credits)
C201 Computer Programming II (4 credits)
C243 Introduction to Data Structures (4 credits)
C308 System Analysis and Design (4 credits)
C335 Computer Structures (4 credits)

One additional computer science course above the level of CSCI-C 243.

Computer Science at IUSB?

◆ As the premier public institution of higher education in the region, our mission is to provide the highest quality education in the most enjoyable and friendly atmosphere possible. In pursuing this mission we work hard to attract the best and most qualified faculty and staff to our program. We also work hard to build and maintain up-to-date computer laboratories which are crucial to our program. Through our internship program for students, faculty consulting and volunteering, we interact regularly with our local industry so that we continually exchange ideas to the mutual benefit of both the business community and the university. Our goal is to bridge the gap between theories and concepts presented in the classroom and real life business and industry needs and practices.

What is the job outlook?

◆ There are excellent employment opportunities for our graduates. Almost every student and every alumnus of our program is gainfully employed. In our region, the average starting salary for our graduates is currently in the mid 40's. Nationally, salaries range from low 40's to upper 70's. Furthermore, according to predictions by the *Bureau of Labor Statistics* during the period between 1998 to 2008, fields within the computer science discipline will experience 73 to 108% growth.

Why IUSB?

◆ IUSB is the only public institution in the region (60 miles radius) equipped to offer quality undergraduate and graduate programs in computing.
◆ Our class sizes average around 20 students, and almost never exceeding 30.
◆ We have 10 full time faculty with Ph.D. degrees in computer science or closely related areas.
◆ The typical salary for our new graduates in the region is approximately $40,000 to $52,000.

Contact Information:

◆ Department of Computer and Information Sciences
Indiana University South Bend
P.O. Box 7111
South Bend, IN 46634
◆ www.cs.iusb.edu
◆ 574-520-5521