### **INACTIVE PROGRAM**

# (B38) Certificate

This certificate consists of a core of courses which provide expanded skills in the area of computer programming. This certificate can also be the function for advancement to higher level positions in an expanding field. In addition to the introductory programming skills taught in the Programming I Certificate, students obtaining this certificate learn the skills appropriate for writing relatively large programs, such as programming in teams and using modular to organize programs effectively.

# Work and Employment

Computer programmers write software and prepare lists of logical steps the computer follows to organize data, solve a problem, or do other tasks. Applications programmers write programs to handle specific jobs such as programs to control inventory or provide access to online databases. They may work for all types of firms that use computer systems. Systems programmers usually work for organizations with large computer centers and for firms that manufacture computers or develop software. They make changes in the sets of instructions that determine how the computer handles the various jobs it has been given. Programming requires logic, abstract thinking and attention to detail.

## Program Contacts at Sauk Valley Community College

Counseling Office, 815/835-6208; Kevin Megill, Associate Professor of Computer Information Systems, 815/835-6251; Alan Pfeifer, Dean of Information Services, 815/835-6218; Valarie Wittman, Associate Professor of Computer Information Systems, 815/835-6388.

Major Field Requirements

- CIS \*Programming Electives 9 Semester hour(s)
- CIS \*\*Advanced Programming Electives 3 Semester hour(s)
- CIS 150 Fundamentals of Business Computer Programming 3 Semester hour(s)
- CIS 222 Assembler Language Programming 3 Semester hour(s)
- or
- MAT 230 Discrete Mathematics 3 Semester hour(s)

Total Hours Required for Certificate: 18

### Footnotes

\*Select 9 credits from: CIS 122, CIS 203, CIS 204, CIS 205, CIS 206, CIS 207, CIS 208

\*\*Select 3 credits from: CIS 204, CIS 208, CIS 224, CIS 234

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