ALFRED STATE COLLEGE
STATE UNIVERSITY OF NEW YORK

**Information Technology Applications
Software Development (BTech)**

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Hit the ground running®...

BTECH DEGREE – CODE #1502

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The Bachelor of Technology degree in information technology: applications software development at Alfred State is designed to prepare you to enter the workforce as an IT professional with a special emphasis in the fast-moving field of programming and database applications. From database application to programming language sequences, including C#, Java, and C++, our expert faculty have created a curriculum to help you meet your career goals. You will also receive a sound foundation in web development, networking, and microcomputer systems. And a full-semester internship will give you the hands-on experience employers are looking for.

ADVANTAGES

Due to the solid foundation in all the major fields of information technology, the job opportunities for graduates are wide and numerous.

CONTINUING EDUCATION OPPORTUNITIES

Articulation agreements have been established with many community colleges and additional agreements are in development. It is possible, with careful selection of courses, to transfer from a variety of associate degrees, including computer information systems, information technology, computer science, and others. Upon completion of the bachelor's degree, students will be prepared to pursue a graduate degree in information technology. The computer information systems degree (AAS) at Alfred State is especially well suited for transfer into the bachelor's degree at the junior level.

OCCUPATIONAL OPPORTUNITIES

Organizations of all types and sizes need computer professionals. The primary employment field includes database administrators, programmers, and systems analysts. Due to the solid foundation in all the major fields of information technology, the job opportunities for graduates are wide and numerous. They include database administrators, software developers, network support, project managers, user support, web developers, IT managers, technical sales, and technical support staff, to name a few.

EMPLOYMENT STATISTICS

Employment and continuing education rate of 100 percent – 100 percent are employed.

RELATED PROGRAMS

Computer Engineering Technology
Computer Information Systems
Computer Science
Cyber Security
Information Technology: Network Administration
Information Technology: Web Development

ENTRANCE REQUIREMENTS/RECOMMENDATIONS

Required: Algebra, Geometry, Algebra 2

REQUIRED COURSE PREREQUISITES

If students do not place into MATH 1033 College Algebra, MATH 1084 Calculus I, MATH 1323 Quantitative Reasoning, 1034 College Algebra of Functions, 1054 Precalculus, or 2124 Statistical Methods & Analysis, then MATH 1014 Algebra Concepts is a required prerequisite for completion of the major.

REQUIRED EQUIPMENT

A tier 2 laptop computer is required for students entering the information technology: applications software development program. Laptop specifications are available at www.alfredstate.edu/required-laptops.

OFFICE OF ACCESSIBILITY SERVICES

Students who believe they need a reasonable accommodation to properly participate in this program may contact Melanie Ryan in the Office of Accessibility Services. This office may be contacted by email at oas@alfredstate.edu or by phone at 607-587-4506. Please keep in mind that some accommodations may take time to implement, so students seeking accommodations are encouraged to contact OAS as early as possible.

INFORMATION TECHNOLOGY: APPLICATIONS SOFTWARE DEVELOPMENT - BTECH DEGREE

TYPICAL EIGHT-SEMESTER PROGRAM

First

CISY	1023	Intro to Information Tech	3
CISY	1113	Computer Programming I	3
COMP	1503	Writing Studies	3
GLST	2113	Global & Diverse Perspectives	3
XXXX	xxx3	Gen. Ed. Elective	3
			15

Second

CISY	2133	Computer Programming II	3
CISY	2143	Microcomputer Systems I	3
LITR	xxx3	Literature Elective	3
MATH	xxx3	College Algebra or Higher*	3
CISY	2153	Database Appl and Programng I	3
			15

Third

CISY	4033	Networking I	3
CISY	3223	Intro to Web Page Development	3
CISY	4003	Comp Prgrmming III/ Data Strctu	3
ACCT	1124	Financial Accounting	4
MATH	2124	Statistical Methods & Analysis OR	4
MATH	1123	Statistics I OR	3
MATH	2163	Discrete Mathematics	3
			16-17

Fourth

CISY	4063	Systems Analysis & Design	3
BUAD	3153	Fundamentals of Management	3
SPCH	1083	Public Speaking OR	3
SPCH	xxx3	Effective Speaking Equivalent	3
CISY	4723	Essentials of Info Security	3
XXXX	xxx3	Gen. Ed. - Natural Science	3
XXXX	xxx3	Gen. Ed. Elective	3
			18

Fifth

CISY	6503	Object-Oriented Programming	3
COMP	5703	Technical Writing II	3
XXXX	xxx3	General Education Elective	3
XXXX	xxx3	General Education Elective	3
XXXX	xxx3	Professional Elective	3
			15

Sixth

CISY	7003	Project Management	3
CISY	5403	Database Concepts	3
XXXX	xxx3	Professional Elective	3
XXXX	xxx3	Concentration Elective - Upper	3
XXXX	xxx3	Open Elective - Upper	3
XXXX	xxx3	Professional Elective - Upper	3
			18

Seventh

CISY	8503	Appl Database Management	3
CISY	8603	Seminar Critical Issues in IT	3
XXXX	xxx3	Open Elective	3
XXXX	xxx3	Professional Elective - Upper	3
XXXX	xxx3	Professional Elective - Upper	3
			15

Eighth

CISY	8712	Info Technology Internship	12
			12

*If not required, take LAS elective to complete degree requirements of three credits; otherwise take free elective.

GPA of 2.5 or higher required in major courses; GPA of 2.0 minimum overall; internship is student-initiated.

Be advised that a prior felony conviction may impede a student's ability to participate in an internship and complete the program.

GRADUATION REQUIREMENTS

- 124 credit hours
- 39 credit hours in major field required courses
- 24 credit hours in professional courses
- 18 credit hours in core concentration
- 30 credit hours in liberal arts courses
- A 2.5 grade point average in the major is needed for the required internship
- Other requirements as stated in college academic regulations
- Seven general education areas are required, including three of the following five: art, language, other world civilizations, American history, or western civilization