



FOUNTAINHEAD

College of Technology

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Richard W. Rackley - President/Executive Director

Application Development

The explosive impact of computers and information technology on our everyday lives has generated a need to design and develop new computer software systems and to incorporate new technologies into a rapidly growing range of applications. Software engineers working in applications or systems development analyze users' needs and design, construct, test, and maintain computer applications software or systems.

This program begins with training in the fundamentals of computers, with an intensive focus on computer programming. Students are expected to become proficient in Visual C#.NET, Visual Basic.NET, and ASP.NET. Also presented are XML, Java, Database Applications and Design as well as Structured Query Language (SQL). Students will also learn problem-solving, troubleshooting and repair skills for computers and basic computer-network configurations. The program is designed to prepare students to seek the Microsoft Certified Applications Developer certification (MCAD).

As this program progresses it focuses on higher end technical skills as well as managerial skills to provide more career potential. Courses include Project Management, Technical Writing, Process Analysis, and Solutions Design. The program also expands into C++, one of the common languages used at the core of video games.

Prospective students that have a non computer-centric associate's degree or higher that wish to enroll in this program must demonstrate a proficiency in computer and network technologies through certifications, by special exam or at the discretion of the College.

Graduates of this program are generally give a title such as:

**Computer Software Engineer
Computer Systems Software Engineer
Systems Software Engineer
Computer Applications Software Engineer
Software QA Engineer
Software Developer**

Bachelor of Applied Science in Computer Technology: Application Development Course Outline

BC205	A+ Essentials	4
BC206	A+ IT Technician	3
BC207	Introduction to Linux	3
BC204	Introduction to Networking	5
WS201	Web Site Design	3
PJ202	Project Management	3
PD203	Professional Development	3
DB201	SQL Database Management	3
PM205	Introduction to Programming	3
CP301	Visual C#.NET I	3
CP302	Visual C#.NET II	3
CP303	Visual Basic.NET I	3
CP304	Visual Basic.NET II	3
CP305	Java	3
AM205	Applied Math for Programmers	3
CP307	SQL—SQL Server	3
CP308	XML Web Services	3
CP309	ASP.NET I	3
CP3010	ASP.NET II	3
E103	English Composition	4
H103	U.S. History I	4
M103	College Mathematics	4
P101	Psychology	4
E104	Public Speaking	4
M102	Personal Financial Planning	4
P102	Cultural Studies	4
H104	U.S. History II	4
COM401	Programming & Problem Solving	4
COM402	Ethics in Information Technology	3
COM403	Project Management & Planning	4
COM404	Technical Writing & Proposals	4
CSA401	Programming with C++	4
CSA402	Data Structures in C++	4
CSA403	Solutions Design	3
CSA404	Process Analysis	4

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Formerly Tennessee Institute of Electronics
Founded 1947