Overview
Computers have made more of an impact on our society than any other invention of the past century. Beyond smartphones, computer systems continue to find more and more uses in homes, businesses and industry through the development of smart devices that are connected through the Internet. Be the person who tackles and solves 21st century problems by interconnecting these devices and developing the software that controls them. Kansas State Polytechnic's computer systems technology and Web development technology programs teach you how.

Professional options
Careers
Computer systems technologists are found in organizations of every size and industrial classification. Software developers are employed by companies of all sizes to support the manufacturing, engineering, research and development of new systems. Kansas State Polytechnic has graduates doing this at large corporations, such as Cerner Corporation and Garmin International Inc., as well as many smaller firms. The Bureau of Labor Statistics (www.bls.gov) lists software and applications developer in the top 20 occupations for future growth of new jobs.

A Web developer is responsible for creating, installing and managing a firm's web presence. Some graduates are employed by the company directly, others work for web development firms that specialize in creating web sites. The Bureau of Labor Statistics project web development that specialize in creating web sites. The Bureau of Labor Statistics, are in the top 20 occupations with the highest median annual pay.

Academics
Degree options
Computer systems technology
The bachelor's degree option in computer systems technology builds a foundation of computer science principles and yet allows the student to apply those concepts to a variety of current and emerging technologies. Graduates will be able to design, develop and administrate a commercial-quality software system that includes database interaction, cyber security and a multi-user interface. All bachelor's degree candidates must either successfully complete the associate degree in Web development technology or transfer equivalent courses from another college or university. In their junior and senior years, students expand their experience to technologies beyond the web such as mobile devices, robots, network programming, Windows desktop programming and Web analytics.

Web development technology
The Web development technology program option leads to an associate degree. Graduates will be able to set up a web server, create a web-site on the server that supports modern commerce and act as both developer and administrator of the site. Course work centers on the core areas of web development, computer programming, database systems and network administration. Students learn project management techniques as they use modern programming languages and other software tools to develop Web-based applications. Students in this program can continue with the bachelor's degree option in computer systems technology.

Preparation
The computer systems technology program is designed for students interested in the practical application of computer hardware and software. The ability to think through a problem in a logical, step-by-step manner is very important in this field, as is a genuine interest in hands-on laboratory activities. High school studies should concentrate on mathematics, computer applications, physical sciences with related laboratory activities and written and oral communications.

Facilities
Laboratory facilities used in the computer systems technology program provide a hands-on learning environment with state-of-the-art equipment and software. Facilities include well-equipped computer laboratories containing software with which to develop programs, database systems, website content and other applications. The computer networking laboratory is devoted to realistic, hands-on experience in installing, configuring and programming networking hardware and software.

Required coursework
Computer Systems Technology, bachelor's degree option
(120 credit hours)

Major requirements (60 credit hours)
3 CMST 103 Computing Principles
3 CMST 135 Web Fundamentals
3 DIGME 137 Fundamentals of Visual Literacy
3 CMST 180 Introduction to Database Systems
1 CMST 183 Computer Systems Studio I
1 CMST 185 Computer Systems Studio II
3 CMST 247 Programming I
3 CMST 250 Hardware and Network Fundamentals
3 CMST 252 Systems and Software Fundamentals
1 CMST 283 Computer Systems Studio III
3 CMST 315 Introduction to System Administration
3 CMST 332 Web Development Project
0 CMST 333 Computer Systems Portfolio Defense
3 CMST 335 Programming II
3-6 CMST 383 Programming & Data Structures Studio*
3-6 CMST 385 Systems and Database Administration Studio*
3 CMST 460 Software Engineering
3-6 CMST 483 Emerging Technologies Studio*
6 CMST 485 Computer Systems Senior Capstone Project

Other courses may be used if approved by the BETB-CP program coordinator.
Math requirements (9 credit hours)
Choose from these courses:
3 MATH 100  College Algebra
3 MATH 150  Plane Trigonometry
3 MATH 205  General Calculus and Linear Algebra
4 MATH 220  Analytic Geometry and Calculus I
4 MATH 221  Analytic Geometry and Calculus II
4 MATH 222  Analytic Geometry and Calculus III

Other math courses may be used if approved by the BETB-CP program coordinator.

Other requirements (51 credit hours)
3 COMM 106  Public Speaking I
1 EDCEP 111  University Experience
3 ENGL 100  Expository Writing I
3 ENGL 200  Expository Writing II
3 ENGL 302  Technical Writing
3 PHILO 105  Introduction to Critical Thinking
3 PHILO 390  Business Ethics
3 STAT 325  Introduction to Statistics
3 Business elective
3 Business elective
3 Humanities/social science elective
3 Humanities/social science elective
3 Humanities/social science/business elective
4 Science elective
4 Science elective
3 Unrestricted elective
3 Unrestricted elective

* Students may substitute up to 9 credits of studio with appropriate courses as approved by the BETB-CP program coordinator.

** Marked electives must be upper-level courses, 300 and above.

For more information about the computer systems technology program, contact:
Kansas State Polytechnic
Office of Admissions
2310 Centennial Road
Salina, KS 67401-8196
785-826-2640
polytechnic@k-state.edu

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Kansas State University

Notice of nondiscrimination
Kansas State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, or veteran status, in the university’s programs and activities as required by applicable laws and regulations. The person designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning the nondiscrimination policy is the university’s Title IX Coordinator: the Director of the Office of Institutional Equity, equalthk-state.edu, 103 Edwards Hall, 1810 Kerr Drive, Kansas State University, Manhattan, Kansas 66506-4801. Telephone: 785-532-6620 | TTY or TRS: 711. The campus ADA Coordinator is the Director of Employee Relations and Engagement, who may be reached at charlott@k-state.edu or 103 Edwards Hall, 1810 Kerr Drive, Kansas State University, Manhattan, Kansas 66506-4801, 785-532-6277 and TTY or TRS 711.

Post-Graduation Statistics
k-state.edu/postgrad-stats
kidegreestats.org

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