

# Bachelor of Science in Information Technology

## Bachelor of Science in Information Technology Program

Graduates who have earned a bachelor's degree in information technology will combine technical expertise with modern problem-solving and communication skills to plan, configure, implement, integrate, and maintain computing and information technology solutions for an organization's computing infrastructure.

The undergraduate program in Information Technology is offered in its entirety only at the KU Edwards Campus, 12600 Quivira Rd., Overland Park, KS 66213. Students considering this degree option should contact the Information Technology advisor on the Edwards Campus, [bsit@ku.edu](mailto:bsit@ku.edu), 785-864-8623 (from Lawrence) or 913-897-8623 (outside Lawrence), for advising.

*This program is funded by the Education and Research Triangle (<http://edwards-campus.ku.edu/johnson-county-education-research-triangle>) initiative.*

## Careers

### Professional Opportunities

Information technology (IT) professionals are needed in nearly every business sector. They may find careers in information security, software development, platform technologies, network and system administration, Web system development, and IT project management.

### Undergraduate Admission to the B.S. in Information Technology Program

Applications to the B.S. in Information Technology program will generally be considered under the guidelines of the Transfer Admission Standards. In addition, to be considered for admission, students will need to complete the B.S. in Information Technology prerequisite course work listed below.

### Transfer Admission Standards

Applications from all transfer students, whether from other institutions or from other KU units, are evaluated on a case-by-case basis. In general, students with grade-point averages under 2.5 are not considered. No upper-level engineering credits from non-ABET-accredited engineering programs are acceptable as transfer credit for engineering programs. Admission is selective, and meeting the minimum requirements does not guarantee admission.

### First-year Students

First-year undergraduate students may be admitted, but all admissions, both in-state and out-of-state, are selective. Visit the Office of Admissions (<http://admissions.ku.edu/whyku/index.shtml>) for admission requirements. Visit the Office of International Support Services (<http://www.iss.ku.edu>) for information about international admissions.

Applications are judged on several factors, including but not limited to high school record, scores on national tests, academic record at college

or university level, and trend of grades. High school transcripts and ACT scores are required. Equivalent SAT scores may be substituted.

### Minimum Academic Standards for Admission

To be considered for admission to the School of Engineering, beginning first-year students must meet or exceed the following minimum standards:

- 3.0 grade-point average on a 4.0 scale on the Kansas Board of Regents Qualified Admissions ([http://admissions.ku.edu/apply/regents\\_curriculum.shtml](http://admissions.ku.edu/apply/regents_curriculum.shtml)) college-preparatory curriculum.
- Top 50 percent of the graduating class of an accredited high school or the equivalent.
- Mathematics ACT score of 22 (or mathematics SAT score of 540). Some engineering degree programs may require a higher mathematics ACT score.

These minimum admission standards apply to all School of Engineering departments. Meeting minimum requirements does not guarantee admission.

### B.S. in Information Technology Prerequisite Course Work

The successful completion of the following requirements is needed for admission into the B.S. in Information Technology program:

Code	Title	Hours
Satisfy GE 2.1 (Typically completed with ENGL 101 and ENGL 102.) <sup>1</sup>		6
Satisfy GE 2.2 (Typically completed with COMS 130.) <sup>1</sup>		3
MATH 101	College Algebra	3
PHSX 114	College Physics I	4
Discrete Structures I <sup>2</sup>		3
Discrete Structures II <sup>2</sup>		3
BIOL 150	Principles of Molecular and Cellular Biology	4-5
or CHEM 130	General Chemistry I	
Programming Fundamentals <sup>2</sup>		4
EECS 168	Programming I	4
EECS 268	Programming II	4
UNIX Scripting and Utilities <sup>3</sup>		3
Database Management <sup>3</sup>		4
PSYC 104	General Psychology	3
ECON 104	Introductory Economics (or equivalent)	3-4
or ECON 142	Principles of Microeconomics	
or ECON 144	Principles of Macroeconomics	
ACCT 205	Survey of Accounting (or equivalent)	3-4
or ACCT 200	Fundamentals of Financial Accounting	

<sup>1</sup> Means of satisfying KU Core Goals are chosen from a variety of options (see [kucore.ku.edu](http://kucore.ku.edu)). Hours listed are assuming the goals are satisfied with course work.

<sup>2</sup> This specific course is not offered at KU, however an equivalent course from KU may be substituted. Consult your advisor.

<sup>3</sup> No equivalent course is offered at KU; it must be transferred from a different college or university. Consult your advisor.

# Bachelor of Science in Information Technology Degree Requirements

## The KU Core

This is the university-wide curriculum that all incoming undergraduate students will complete as part of their degree requirements. It comprises three general education goals and three advanced education goals.

Associated with each goal is one or more learning outcomes:

- GE 1.1, Goal 1/Outcome 1, Critical Thinking;
- GE 1.2, Goal 1/Outcome 2, Quantitative Literacy;
- GE 2.1, Goal 2/Outcome 1, Written Communication;
- GE 2.2, Goal 2/Outcome 2, Oral Communication;
- GE 3H, Goal 3/Outcome 1, Arts & Humanities;
- GE 3N Goal 3/Outcome 2, Natural Sciences;
- GE 3S Goal 3 /Outcome 3, Social Sciences;
- AE 4.1, Goal 4/Outcome 1, Diversity;
- AE 4.2 Goal 4/Outcome 2 Culture;
- AE 5.1, Goal 5/Outcome 1, Social Responsibility & Ethics (course);
- AE 5.2, Goal 5/Outcome 2, Social Responsibility & Ethics (practice);
- AE 6.1, Goal 6/Outcome 1/2, Integration & Creativity.

Details of the KU Core can be found at [kucore.ku.edu](http://kucore.ku.edu). Some required courses in the IT curricula satisfy a KU Core goal and/or outcome<sup>4</sup>. For these courses, the goal/outcome code is given in parentheses after the course on the pages below. Where required courses do NOT specifically satisfy KU Core goals (Goals 2, 3, and 4) students must choose from a list of several means to satisfy the required goals.

A minimum of 120 credit hours is required for the B.S. in Information Technology, as follows:

Code	Title	Hours
<b>Information Technology</b>		
	Programming Fundamentals <sup>2</sup>	4
EECS 168	Programming I	4
EECS 268	Programming II	4
	UNIX Scripting and Utilities <sup>3</sup>	3
	Database Management <sup>3</sup>	4
IT 310	Computer Organization and Platform Technologies	3
IT 320	System and Network Administration	3
IT 330	Web Systems and Technologies	3
IT 340	Computer and Information Security	3
IT 342	Information Security Management	3
IT 410	Software Engineering and Management	3
IT 416	System Integration and Architecture	3
IT 420	Operating Systems	3
IT 422	Computer Networks	3
IT 430	Human-Computer Interaction	3
IT 450	Social and Professional Issues	3
	Senior IT elective 1	3
	Senior IT elective 2	3
IT 490	IT Capstone I (AE 6.1)	3
IT 492	IT Capstone II	3
<b>Mathematics</b>		
MATH 101	College Algebra (GE 1.2)	3

	Discrete Structures I <sup>2</sup>	3
	Discrete Structures II <sup>2</sup>	3
MATH 365	Elementary Statistics	3

### Basic Science

BIOL 150	Principles of Molecular and Cellular Biology (GE 3N)	4-5
	or CHEM 130 General Chemistry I	
PHSX 114	College Physics I	4

### Business and Management

ACCT 205	Survey of Accounting (or equivalent)	3-4
	or ACCT 200 Fundamentals of Financial Accounting	
MGMT 305	Survey of Management and Leadership	3
BBA 410	Project Management	3

### Written and Oral Communication

	Satisfy GE 2.1 (Typically completed by ENGL 101 and ENGL 102.) <sup>1</sup>	6
ENGL 362	Foundations of Technical Writing	3
	Satisfy GE 2.2 (Typically completed by COMS 130.) <sup>1</sup>	3

### Social Science and Humanities

ECON 104	Introductory Economics (or equivalent)	3-4
	or ECON 142 Principles of Microeconomics	
	or ECON 144 Principles of Macroeconomics	
PSYC 104	General Psychology (GE 3S)	3
	Satisfy GE 3H	3

### Culture and Diversity

	Satisfy AE 4.1	3
	Satisfy AE 4.2 <sup>1</sup>	3
IT 380	Managing IT Projects	3

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<sup>3</sup> No equivalent course is offered at KU; it must be transferred from a different college or university. Consult your advisor.

<sup>4</sup> Two required courses in the IT curricula are currently under review to satisfy GE 1.1 and AE 5.1. Please check with an advisor for current information on completing these KU Core goals.

### Upper Level Eligibility

In addition to prerequisites and co-requisites, Information Technology undergraduates are required to earn **Upper Level Course Eligibility** by attaining grades of C or better in each of the following 10 courses:

GE 2.1 (both)

PHSX 114

MATH 101

Discrete Structures I and II (EECS 210, MATH 450, or equivalent)

EECS 168

EECS 268

Database Management

Unix Scripting & Utilities

If students earn less than a C in any of the above listed courses, they must repeat the course at the next available opportunity and must **not** take a course for which that course is a prerequisite. It is the *students' responsibility* to contact their advisors *before beginning the new semester* regarding any required repetitions and the associated enrollment adjustments (drops and adds).

To enroll in *any* upper-level IT course (numbered 300 and above), students must have fulfilled the **Upper Level Eligibility Requirements** detailed above. Students may also petition for a *Partial Waiver of Upper Level Eligibility Requirements* by completing the appropriate petition; contact the BSIT advisor at [bsit@ku.edu](mailto:bsit@ku.edu) for more information.

### Information Technology 4-Year Graduation Plan

The undergraduate program in Information Technology is offered in its entirety only at the KU Edwards Campus in Overland Park, 12600 Quivira Rd., Overland Park, KS 66213. This program is designed for students who have earned an associate's degree or equivalent hours and wish to complete the upper-level courses necessary for a bachelor's degree.

Students planning to attain the degree will need to transfer key credits from other academic institutions as not all required courses are available through KU.

### First and Second Year Preparation

The first two years of study for this degree program are typically completed at Johnson County Community College. Students considering this degree option should contact the Information Technology advisor on the KU Edwards Campus, [bsit@ku.edu](mailto:bsit@ku.edu), 864-8623 (from Lawrence) or 913-897-8623 (outside Lawrence), for advising on the first two years of study.

**Year 1**

Semester 1	Hours Semester 2	Hours
GE 2.1 (first) <sup>1</sup>	3 GE 2.1 (second) <sup>1</sup>	3
MATH 101 (GE 1.2)	3 EECS 168	4
Programming Fundamentals <sup>2</sup>	4 GE 3H	3
ACCT 205 or 200 (or equivalent)	3-4 BIOL 150 or CHEM 130 (GE 3N)	4-5
GE 2.2 <sup>1</sup>	3	
	16-17	14-15

**Year 2**

Semester 1	Hours Semester 2	Hours
Discrete Structures I <sup>2</sup>	3 EECS 268	4
PSYC 104 (GE 3S)	3 AE 4.1 or AE 4.2 <sup>1</sup>	3
Database Management <sup>3</sup>	4 Discrete Structures II <sup>2</sup>	3
ECON 104, 142, or 144 (or equivalent)	3-4 PHSX 114	4
UNIX Scripting and Utilities <sup>3</sup>	3	
	16-17	14

Total Hours 60-63

### Third and Fourth Year at the KU Edwards Campus in Overland Park

**Year 3**

Semester 1	Hours Semester 2	Hours
ENGL 362	3 AE 4.1 or AE 4.2 <sup>1</sup>	3
IT 310	3 IT 320	3
IT 340	3 IT 330	3
MATH 365	3 IT 342	3
MGMT 305	3 BBA 410	3
	15	15

**Year 4**

Semester 1	Hours Semester 2	Hours
IT 410	3 IT 416	3
IT 420	3 IT 430	3
IT 422	3 IT 450	3
Senior IT elective 1	3 Senior IT elective 2	3
IT 490	3 IT 492	3
	15	15

Total Hours 60

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