

# COMPUTER INFORMATION SYSTEMS, CERTIFICATE

Prepare for a future with innovative, diverse, technology-based organizations in the ever-changing field of computer science and IT with a certificate in computer information systems offered through Saint Louis University's School for Professional Studies.

This certificate from SLU provides you with the knowledge and skills needed to be competitive in today's market. You can choose to specialize in data analytics or cybersecurity, providing you with expertise that is in demand in modern organizations.

As part of the Saint Louis University School for Professional Studies, this program offers enterprising adults like you a flexible option to meet your personal and career goals. With multiple start dates available, you can begin working toward your certificate at any time. All courses are offered in eight-week terms through SLU Online, making advanced education more accessible for working professionals.

## Faculty

As a student in the School for Professional Studies at Saint Louis University, you'll learn from exceptional faculty who are leading experts in their fields. They bring real-world knowledge to the classroom and are dedicated to your professional success. Learn more about the SPS faculty (<https://www.slu.edu/professional-studies/contact-us/faculty/>).

## Careers

According to the U.S. Bureau of Labor Statistics, the computer science and database industry is expected to grow by 12% through the year 2024, adding 488,500 new jobs. Job opportunities within this field have a broad range of salaries.

Students in the data analytics concentration may pursue a career as a market research analyst, data analyst or in business intelligence. Learn how to collect, analyze, interpret and present information obtained from data drawn from multiple, often disparate sources of organizational data.

Students in the cybersecurity concentration may pursue a career as a cybersecurity analyst, web developer, computer network architect or information assurance engineer. Gain the skills needed to secure information assets of an organization and ensure that data can be created, accessed and modified by only those with the requisite privileges. Upon completion, you will be prepared for employment opportunities in a variety of businesses and organizations.

## Tuition

Tuition	Cost Per Credit
<b>Undergraduate Tuition</b>	
Standard Tuition	\$650
Active Duty/Veteran (TA eligible or GI Bill); First Responders	\$295
BJC Partnership	\$333

Additional charges may apply. Other resources are listed below:

Net Price Calculator (<https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php>)

Information on Tuition and Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition/>)

Miscellaneous Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/fees/>)

Information on Summer Tuition (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer/>)

## Scholarships and Financial Aid

There are two principal ways to help finance a Saint Louis University education:

- **Scholarships:** Scholarships are awarded based on academic achievement, service, leadership and financial need. The School for Professional Studies offers numerous scholarships (<https://www.slu.edu/professional-studies/becoming-a-student/tuition-scholarships-aid/>) and awards specifically for new students.
- **Financial Aid:** Financial aid is provided in the form of grants and loans, some of which require repayment.

To determine eligibility for financial assistance, submit the Free Application for Federal Student Aid (FAFSA) early for maximum consideration. FAFSA is available online at <https://studentaid.gov/h/apply-for-aid/fafsa> (<https://studentaid.gov/h/apply-for-aid/fafsa/>).

For information on other scholarships and financial aid, visit the student financial services office online at Office of Student Financial Services (<https://www.slu.edu/financial-aid/>).

## Learning Outcomes

1. Graduates will be able to analyze a problem and to identify and define the computing requirements appropriate to its solution.
2. Graduates will be able to design, implement, and evaluate a computer-based solution to meet a given set of computing requirements in the context of the discipline.
3. Graduates will be able to communicate effectively with a range of audiences about technical information.
4. Graduates will be able to make informed judgments in computing practice based on legal and ethical principles.
5. Graduates will be able to function effectively on teams to establish goals, plan tasks, meet deadlines, manage risk and produce deliverables.

## Requirements

### Admission Requirements

- Completed application
- High school diploma or composite GED score of at least 2250
- Minimum transfer cumulative GPA of 2.5 (unless qualified for conditional admittance)
- Official transcript from the most recent institution attended

Upon admission, a new student must successfully complete a virtual meeting with their academic coach to be enrolled in first-term coursework.

The School for Professional Studies welcomes adult learners seeking an undergraduate education after life circumstances have interrupted their educational journeys. Adult life circumstances, for the purposes

of admission, would include individuals with at least one of the following characteristics:

- Delayed enrollment in post-secondary education
- Attends part time for at least part of the academic year
- Works full time (35 hours or more/week) while enrolled
- Is financially independent
- Has dependents other than a spouse
- Is a single parent
- Has other demands that make traditional education less feasible

## Program Requirements

Code	Title	Credits
<b>Required Courses</b>		
CIS 1600	Introduction to Programming	3
CIS 2875	Principles of Data Analysis	3
CIS 3300	Database Analysis and Design	3
<b>Specialization</b>		<b>9</b>
Select one of the following Specializations:		
<i>Data Analytics</i>		
CIS 3850	Analytics and Visualizations	
CIS 4250	Survey of Machine Learning	
CIS 4750	Data Mining	
<i>Cybersecurity</i>		
CIS 3250	Cybersecurity Principles	
CIS 4300	The Fundamentals of Computer Forensics	
CIS 4600	Cyber Threats and Defense	
<b>Total Credits</b>		<b>18</b>

## Continuation Standards

Students must maintain a minimum of 2.00 GPA and receive a C or better in all certificate classes.

## Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

## Computer Information Systems Certificate with Cybersecurity Concentration

Course	Title	Credits
<b>Year One</b>		
<b>Fall</b>		
<b>Fall 1</b>		
CIS 1600	Introduction to Programming	3
CIS 2875	Principles of Data Analysis	3
<b>Fall 2</b>		

CIS 3250	Cybersecurity Principles	3
CIS 3300	Database Analysis and Design	3
<b>Credits</b>		<b>12</b>
<b>Spring</b>		
<b>Spring 1</b>		
CIS 4300	The Fundamentals of Computer Forensics	3
CIS 4600	Cyber Threats and Defense	3
<b>Credits</b>		<b>6</b>
<b>Total Credits</b>		<b>18</b>

## Computer Information Systems Certificate with Data Analytics Concentration

Course	Title	Credits
<b>Year One</b>		
<b>Fall</b>		
<b>Fall 1</b>		
CIS 1600	Introduction to Programming	3
CIS 2875	Principles of Data Analysis	3
<b>Fall 2</b>		
CIS 3850	Analytics and Visualizations	3
CIS 3300	Database Analysis and Design	3
<b>Credits</b>		<b>12</b>
<b>Spring</b>		
<b>Spring 1</b>		
CIS 4250	Survey of Machine Learning	3
CIS 4750	Data Mining	3
<b>Credits</b>		<b>6</b>
<b>Total Credits</b>		<b>18</b>