Linux

Degree Type
Certificate

The Linux operating system provides powerful open source solutions which offer increased stability, higher levels of security, and lower cost than commercial operating systems. Linux is particularly attractive to small and mid-sized businesses, and interest in Linux is high and growing rapidly.

There are a variety of applications available for Linux today, and many of these open source solutions have been ported to run within a Windows environment as well. Many of these programs are gaining a large foothold in the business community, and the demand for skilled professionals in this area is high. The Linux Certificate will provide students with the fundamental knowledge needed to work in a Linux/Open Source environment. Students enrolled in this Certificate program must have a solid background in computer use and significant experience with at least the Windows or Mac OS X operating system.

Program Outcomes

Pending course selection, graduates will be able to:

- Analyze a problem and identify/define the computing requirements appropriate to its solution.
- Design, implement and evaluate a computer-based process or program to meet desired needs.
- Use current techniques, skills, and tools necessary for computing practices.
- Demonstrate a familiarity with state-of-the-art programming techniques, tools, and practices.
- Demonstrate a solid foundation in the fundamental areas of computer science - which are algorithms, systems, and software - and exposure to multiple sub-disciplines of computer science.
- Understand professional, ethical, legal, security, and social issues and responsibilities related to IT, to include an understanding of cross-cultural issues and global perspectives.
- Use written and oral communication skills necessary to be effective in the IT industry.
- Recognize the need to maintain currency with future changes in the computing profession.
- Use creative and critical thinking processes to work independently and/or collaboratively to develop complex solutions and take the lead to implement those solutions.
- Function effectively on teams to accomplish a common goal.
- Through the use of an online portfolio, students will assess and reflect upon their own learning and create a cumulative portfolio of their "best" work.

Note: The LINUX Certificate is a rigorous program. Students are expected to spend additional time beyond the minimum to complete requirements and achieve success. Students are also required to have college level reading, writing and math skills prior to enrollment.

Technical Standards

Students enrolling in the Linux Certificate program must have college level writing, mathematics and technology skills. Completion of or placement into the following (or equivalents) will satisfy these prerequisites:

- ENGL110G/111G for English proficiency
- MATH145G/150G or higher for Math
- CIS107G/110G or 111G for fundamental technology and programming skills

Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
CIS113G	Database Design and Management	2	2	3
CIS146G	Linux I	2	2	3
CIS149G	Linux Applications	2	2	3
CIS216G	Web Server Administration	2	2	3
CIS246G	Linux II	2	2	3
CIS249G	Linux Databases	2	2	3
CIS254G	PHP and MySQL	2	2	3
	Sub-Total Credits	**14**	**14**	**21**
	Total Credits			**21**