

Cloud Computing Program

A. Expected Outcome(s)	B. Measure(s)	C. Target(s)	Assessment Data (from Fall 2021 until Fall 2022)	Assessment Data (from Fall 2021 until Spring 2023)
PLO#1 Demonstrate understanding of cloud terminology, characteristics, cloud infrastructure and architecture	Course midterm (ITNW 1309 Fundamentals of Cloud Computing) A subset of questions from the midterm (30 questions) will measure student understanding of vendor-agnostic concepts and align to the outcome.	70% of the students are expected to achieve a 70% grade or higher on the subset of questions from the midterm in ITNW 1309.	60% of students (105 out of 175) earned a grade of 70% or higher on the subset of questions (30) from the midterm in ITNW 1309.	61.40% of students (140 out of 228) earned a grade of 70% or higher on the subset of questions (30) from the midterm in ITNW 1309.
PLO#2 Configure and implement virtual machines on a hypervisor platform	Course lab assignment (ITNW 2375 VMware vSphere: Installation, Configuration, and Management) Students will be expected to demonstrate they have the knowledge to configure and deploy virtual machines. This will be measured using Lab # 4 assignment given in the course. A faculty-developed rubric will be used to determine the level of student success in the lab assignment.	70% of the students are expected to achieve 70% grade or higher on the specified lab assignment in ITNW 2375.	78.94% of the students (30 out of 38) earned a grade of 70% or higher on the specified lab assignment (Lab 4) in ITNW 2375.	78% of the students (39 out of 50) earned a grade of 70% or higher on the specified lab assignment (Lab 4) in ITNW 2375.
PLO#3 Configure and implement cloud storage and database	Course project (ITNW 1373 Cloud Storage and Database) Students will analyze a "client's" given business requirements to design and document the best strategy to create cloud storage and database components using a leading cloud platform. They will deploy the components, create and upload data to these components, and configure setting for encryption, replication, scalability/availability. A faculty-developed rubric will be used to determine the level of student success in the project.	70% of the students are expected to achieve 70% grade or higher on the course project in ITNW 1373.	72.72% of the students (8 out of 11) earned a grade of 70% or higher on the course project in ITNW 1373.	72.72% of the students (8 out of 11) earned a grade of 70% or higher on the course project in ITNW 1373.
PLO#4 Design a cloud infrastructure to solve an assigned business/technical problem using a leading cloud vendor platform	Course project (ITNW 1336 Cloud Deployment and Infrastructure Management) Students in ITNW1336 are presented with a problem to solve as an assignment in this course. Students will analyze the given business/technical requirements to determine and document specifics of the Amazon Web Services (AWS) cloud services they will use. They will architect an infrastructure in AWS using best practices to develop a cloud solution. A faculty-developed rubric will be used to determine the level of student success in the project.	70% of the students are expected to achieve 70% grade or higher on the course project in ITNW 1336.	Not taught until Spring 2023	62.5% of the students (5 out of 8) earned a grade of 70% or higher on the course project in ITNW 1373.
PLO#5 Apply security configuration to a cloud environment using best practices	Course project (ITNW 1374 Cloud Computing Security) As organizations move to the cloud, students will need to understand concepts of cloud security. Students must be able to identify best practices supporting Identity and Access Management (IAM). Students will analyze a "client's" given business and security requirements to determine, document, and apply the best strategy to create IAM profiles and permissions for the cloud environment. A faculty-developed rubric will be used to determine the level of student success in the project.	70% of the students are expected to achieve 70% grade or higher on the course project in ITNW 1374.	Not taught until Spring 2023	100% of the students (8 out of 8) earned a grade of 70% or higher on the course project in ITNW 1374.