KLEF

DEPARTMENT OF SKILL DEVELOPMENT



About AWS Services

AWS Services are a flexible, cost-effective, scalable, and easy to use cloud-computing platform for businesses of all sizes serving hundreds of thousands of customers in more than 190 countries.

AWS offers over 90 fully featured services for compute, storage, networking, database, analytics, application services, deployment, management, developer, mobile, Internet of Things (IoT), Artificial Intelligence (AI), security, hybrid, and enterprise applications, from 44 Availability Zones (AZs) across 16 geographic regions in the U.S., Australia, Brazil, Canada, China, Germany, India, Ireland, Japan, Korea, Singapore, and the UK.

AWS Educate Program is Amazon's global initiative to provide students and educators with the resources needed to greatly accelerate Cloud-related learning endeavors and to "Teach tomorrow's cloud workforce today".

Click – <u>www.awseducate.com</u>

Details of the Partnership

AWS Educate and KL University have collaborated to identify opportunities to provide students and faculty access to the AWS Educate program. The adoption of AWS Educate will give trainees access to resources needed to accelerate cloud-related learning endeavors, including AWS Promotional Credits for hands-on experience with AWS technology, training, content, career pathways, and job board.

AWS Educate Program

The AWS Educate program ("AWS Educate") is Amazon's global initiative to provide students and educators with the resources needed to greatly accelerate cloud-related learning and to help power the workforce of tomorrow. The program offers a robust set of no-cost tools, resources, and AWS Promotional Credits for students and educators to skill up on the cloud.

Student receive several benefits upon approval into AWS Educate:

- AWS Promotional Credits to explore AWS tools and service
- Specialized content & hands-on activities designed to get students comfortable with the basic of cloud computing
- Access to 12 Cloud Career Pathways covering in-demand topics such as machine learning, cyber security, and software development, each with 30+ hours of content

- Ability to earn AWS badges for different competencies such as IoT, gaming, and Alexa skills
- The AWS Educate job board with job and internship opportunities from Amazon and other companies in the AWS Partner network

Student interaction with AWS Educate is focused initially on learning pathways to enable students to understand AWS technology and how these skills relate to in-demand career opportunities.

Duration of the training Program/ Curriculum integration details

The set of courses under AWS provides 40 hours of interactive video content under 10 curated courses and its absolutely free for KLU students. The course title includes Data Scientist, Machine Learning Scientist, Solution Architect, DevOps Engineer and Application Developer. The pathways are integrated into curriculum through skilling courses.

1) Program Name: Cloud Computing Fundamentals

About the Program:

Learn about the Amazon Web Service (AWS) solutions - including compute, storage, analytics, databases, networking, and developer tools – that companies large and small across the globe use to build their businesses.

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Audiences:

B.E / B.Tech , 2nd year Computer Science /Information Technology/ Electronics & Communications , B.Sc Computer Science 2nd and 3rd year students

Learning Pre Requisite

- Basic understanding of operating systems, networking, virtualizations
- Completion of the AWS Educate Cloud Computing 101 Learning Pathway
- AWS Educate Membership. Instructions will be provide by the college or university on how to register with a student or faculty member's college email address.

Learning Outcome:

- This course will provide a fundamental understanding of cloud computing and a systematic knowledge of the basics of cloud technologies, architecture, and security.

2) Program Name: Cloud Literacy Program

About the Program:

This course explores cloud computing models and Amazon Web Services (AWS) fundamentals.

Audiences:

B.E / B.Tech/ B.Sc Computer Science /IT/Electronics & Communication, 1st , 2nd and 3rd Year Students

Pre Requisites:

- Basic knowledge of Windows/ Linux operating systems and working with any browser
- Completion of the AWS Educate Cloud Inventor Badge
- AWS Educate Membership. Instructions will be provide by the college or university on how to register with a student or faculty member's college email address.

Learning Outcome:

Students will be able to understand the fundamental concepts of cloud computing, networking, cybersecutity, and data analysis on the cloud.

3) Program Name: Basics of Machine Learning

About the Program:

Learn about the diverse knowledge and skills machine learning scientists use every day, including distributed systems, programming and scripting, and data analytics.

Audiences:

B.E / B.Tech , 3rd year Computer Science / Information Technology / Electronics & Communications , B.Sc Computer Science 3rd year

Pre-Requisites

Knowledge of Java, Python, and Scala

Knowledge of database concepts including relational and NoSQL Databases

Experience with linear algebra, probability theory, calculus, calculus of variations, graph theory, statistics and probability, differential equations, mathematical statistics, optimization, regression and time series, probability distributions, hypothesis testing, Bayesian Modeling and fitting of a distribution

Completion of AWS Educate Machine Learning Pathway

Learning Outcome:

This course will provide an understanding of the fundamental issues and challenges, strengths and weaknesses of machine learning approaches. Students will be able to design and implement various machine-learning algorithms in a range of real-world applications.

Benefits of this Partnership

For Students

The Cloud Career Pathway framework enables students to put their cloud knowledge to use various self-paced pathways across four overarching job families (Software Developer, Cloud Architect, Analytics and Big Data, and Operations/Support Engineer). Each pathway includes instructional content, assessments, and a final project. Upon completion, learners are eligible to receive an AWS Educate Certificate of Completion or an AWS Educate Badge.

Each student from AWS Educate member institute is eligible to receive Cloud Credit Grant of 75USD.

For Faculty Members

Faculty members have access to the AWS Educate Educator Portal loaded with tools to help them better integrate AWS Cloud technology into their curriculum. Professors, teaching assistants, and other educators receive access to AWS technology, open source content for their courses, training resources, AWS Promotional Credits, and professional development opportunities.

Each faculty member from AWS Educate Member Institute will receive Cloud Credit Grant of 150 USD.

Cloud Economy

In the fall of 2017, Rackspace published a study titled <u>The Cost of Cloud Expertise</u> based on a survey of 950 IT decision makers and 950 IT professionals that was conducted in collaboration with LSE academics and Vanson Bourne. It found, "Nearly three quarters of IT decision makers (71%) believe their organizations have lost revenue due to a lack of cloud expertise. On average, this accounts for 5% of total global revenue, or \$258,188,279 per organization." The average revenue for those organizations was \$5.2 billion. At the time of writing, a search for "cloud computing" jobs on Indeed.com returned more than 10,000 listings.

Faculty In-charge – SPOC

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