

ADVANCED SKILL DEVELOPMENT COURSES



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Additional Skill Acquisition Programme (ASAP)

The Additional Skill Acquisition Programme (ASAP) is a skilling intervention, jointly implemented by the Department of General Education and the Department of Higher Education, Government of Kerala, targeted towards tackling the issue of low employability among youth in Kerala, by imparting foundation skills and industry-relevant training to select students of Government and Government-

aided schools and undergraduate colleges, which are associated Partner Institutions within the programme. From its inception in 2012, ASAP has been able to make commendable impact within the skilling eco-system in the State, both in terms of skilling the youth of the State, as well as implementing national qualification framework and establishing programme-wise quality assurance framework.

Advanced Skill Development Centers (ASDCs)

Realizing the gap between the skill sets required by the industry and the knowledge level of the students in Higher education institutions in the state, ASAP set up its Advanced Skill Development Centres in Engineering Colleges and Polytechnics across Kerala. The ASDCs are envisioned to equip students with futuristic and advanced skill sets required for 4.0 industrial revolution. The

training conducted through ASDCs will be in sync with industry requirements regularly updated to meet emerging market needs and will be transacted through qualified and competent professionals thereby equipping students with the skills, capabilities and competencies required to be globally competitive and tap the emerging potential opportunities.

What we do?

Identifying institutions for setting up ASDCs:

The institutions where the ASDCs are set up and courses are offered are identified considering academic factors such as the results of students, interest of the institution fraternity towards new schemes, infrastructure available at the institutions, etc. A nodal officer is also appointed at each ASDC for coordinating the activities for the respective institution.

Faculty Development Programmes:

Based in the underlying perception that the upskilling of the pupil begins with the upskilling of the teacher, ASAP conducts regular “Training of Trainers” programmes to bring to pace the faculty members with the changes in the technologies used by the industry.

Student Mobilization:

ASAP has a strong team of over 200 Programme Managers across the state who are actively involved in student mobilization

activities such as campaigning at each institution and orientation to the students across colleges and subject streams to facilitate informed decision-making.

Offer courses based on Industry Skill Requirements

Based on field surveys and analysis of various studies conducted we list down the courses that are currently industry-relevant. The courses and the curriculum is regularly updated to meet the emerging market needs and prepare human resources in future ready skills demanded by 4th generation industry. The courses offered at ASDCs are either developed in-house by the Curriculum division of ASAP or offered by major industries working in the skill development domain. All the courses offered at ASDCs are NSQF aligned.

Course transaction:

The courses are offered at ASDCs using teaching aids such as videos, presentations

and study material, that is available both offline as well as online, to ensure that core ideas and concepts are delivered in the intended manner. The faculty trained through the FDP aid the students in completing the courses on time. Furthermore, innovative strategies such as focus group discussions are conducted among students at different skill levels to understand their aspirations. Feedbacks are collected from students at regular intervals to formulate training methods that suit student needs.

Assessment & Certification:

The assessments for the courses are conducted by the industry partners through separate assessment platforms. The students successfully completing all Modules and assessments of the course, will be jointly certified by ASAP and the respective industry partner who is the course provider for that course

Courses to be offered in Engineering Colleges:

Course Name	Duration	Beneficiary Category	Branch	Industry Partner	Fees	Certification
Artificial Intelligence Developer	756 Hours	S5	Any	ASAP	Rs 35000/-	Exact Amount to be fixed
Life Skill Module	100 Hours	3 rd Semester	Any	ASAP	Rs3000/- Engineering Colleges	Rs 2500/- (BEC Certification)
Google Associate Cloud Engineer	48 Hours	7 th Semester	CS/IT/ECE	Google	NIL	40\$
Robotic process Automation	42 Hours	5 th Semester	Any	UiPath	NIL	150\$
Virtual Reality 201 – beginner Level	60 Hours	5 th Semester	Any	Facebook School of Innovation – sv.co	NIL (for 1st Batch)	NIL (for 1st Batch)
TCS – Industry Honor Certification	4 Semesters (Each Course 90 Hours)	5 th Semester	Any	TCS	Rs 42000/- for 4 electives	IHC will be awarded for students who successfully complete all 4 courses
Salesforce Developer	92 Hours	7 th Semester	Any	Salesforce	NIL	200 \$
Salesforce Administrator/ Business Analyst	48 Hours	3 rd Semester	Any	Salesforce	NIL	200 \$
Generative Design Beginner Level	45 Hours	3 rd Semester	Mechanical/ Civil	AUTODESK		Rs 3000 + GST
AWS Academy Cloud Foundation	20 Hours	5 th Semester	Any	AWS Academy	NIL	50\$ + GST
AWS Academy Cloud Associate	40 Hours	Students completing Cloud Foundation	Any	AWS Academy	NIL	75\$ + GST
SDPK Courses	Details will be communicated later					

Courses to be offered in Polytechnics:

Course Name	Duration	Beneficiary Category	Branch	Industry Partner	Fees	Certification
Life Skill Module	100 Hours	1 st Semester	Any	ASAP	Rs 1500/- for Polytechnic	Rs 2500/- (BEC Certification)
Salesforce Administrator/ Business Analyst	48 Hours	3 rd Semester	Any	Salesforce	NIL	200 \$
Salesforce Developer	92 Hours	5 th Semester	Any	Salesforce	NIL	200 \$
Generative Design Beginner Level	45 Hours	3 rd Semester	Mechanical / Civil	AUTODESK	NIL	Rs 3000 + GST
AWS Academy Cloud Associate	40 Hours	Students completing Cloud Foundation	Any	AWS Academy	NIL	75\$ + GST

GOOGLE ASSOCIATE CLOUD ENGINEER

ABOUT THIS COURSE: Associate Cloud Engineer certification training is a free online programme offered by Google for Engineering and Polytechnic Students and Teachers. The programme has online self-learning instructional content and assessments. The learners will get free access to Google Cloud resources (approx. \$350 value). An Associate Cloud Engineer deploys applications, monitors operations of multiple projects, and maintains enterprise solutions to ensure that they meet

target performance metrics. Learner gains experience through working with public clouds and on-premises solutions. They are able to use Google Cloud Console and the command-line interface to perform common platform-based tasks to maintain one or more deployed solutions that leverage Google-managed or self-managed services on Google Cloud.

Objective

- Understanding about how to transfer data to form suitable for computer aided analysis.
- Set up a cloud solution environment
- Plan and configure a cloud solution
- Deploy and implement a cloud solution
- Ensure successful operation of a cloud solution
- Configure access and security

COURSE OUTCOME:

After the completion of the course the student will be able to

CO 1	Students learn comprehensive and flexible infrastructure and platform services provided by Google Cloud Platform, with a focus on Compute Engine.
CO 2	Students learn through a combination of presentations, demos, and hands-on labs, participants explore and deploy solution elements, including infrastructure components such as networks, systems and applications services.
CO 3	Students will learn deploying practical solutions including securely interconnecting networks, customer-supplied encryption keys, security and access management, quotas and billing, and resource monitoring.

COURSE DETAILS:

PARTICULARS	GOOGLE ASSOCIATE CLOUD ENGINEER
DURATION	48 Hours
TRAINER	FACULTY (MENTORSHIP- NO REMUNERATION)
MODE OF DELIVERY	ONLINE WITH STUDY JAMS
BENEFICIARY GROUP	SEMESTER 7 th
BRANCH	CS/IT/ECE
FEE STRUCTURE	NIL
CERTIFICATION FEES	\$ 40 (Google Certification)

SYLLABUS OF THE COURSE

MODULE 1

GOOGLE CLOUD PLATFORM FUNDAMENTALS : CORE INFRASTRUCTURE

Introducing cloud Platform- Getting started with Google Cloud Platform-GCP Services- Virtual Machines in the cloud- Compute Engine-Google Compute Engine and Networking- Storage in the cloud- Difference among GCP's core storage options-Containers in the Cloud- Application in the cloud- Platform-as-a-Service ("PaaS") -Developing Deploying and Monitoring in the Cloud- Kubernetes Engine-Big Data and Machine Learning in Cloud- Summary and Review

MODULE 2

ESSENTIAL CLOUD INFRASTRUCTURE : FOUNDATION

Introduction- Introduction to Google Cloud Platform- GCP infrastructure Virtual Networks-Virtual Private Cloud(VPC)- Networks-Subnetworks-IP addresses-routes-Firewall rules-Network pricing-Virtual Machine- Basics of Compute Engine- Creating virtual machines

MODULE 3

ESSENTIAL CLOUD INFRASTRUCTURE : CORE SERVICES

Introduction-Architecting with Google Compute Engine course-Google Cloud Identity and Access Management (IAM)- Storage and Data Base Services- storage and database services in GCP- Resource Management- Resource Monitoring- Stackdriver- Summary and Review

MODULE 4

ELASTIC CLOUD INFRASTRUCTURE SCALING AND AUTOMATION

Introduction- Interconnecting Networks- GCP's hybrid connectivity products- Cloud VPN, Cloud Interconnect, and Peering - Load Balancing and Auto Scaling- load balancers Infrastructure Automation- Managed Service-Managed Services- Overview of BigQuery, Cloud Dataflow-Cloud Dataprep by Trifacta- Cloud Dataproc

Welcome to Design and Process- Defining the Services- Business Logic Layer Design- Data Layer Design- Presentation Layer- Design for Resiliency, scalability and disaster recovery- Design for Security- Capacity planning and Cost optimization- Deployment Monitoring Alerting and Incident Response-Review- Project Presentation.

COURSE HIGHLIGHTS

- On-demand courses: Build skills in the cloud with video-based training with Coursera.
- Free access to Architecting with Google Compute Engine Specialization with up to 40 hours of content.
- Get free access to self-paced labs on Qwiklabs.
- Faculty are eligible for a 100% discount on exam fees while students can get a 50% discount.
- A Google Cloud certification in G Suite.