EMC ACADEMIC ALLIANCE

Preparing the next generation of IT professionals for careers in virtualized and cloud environments.

EMC²

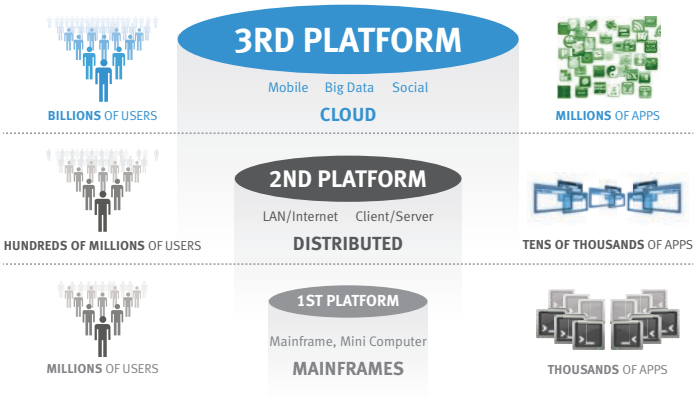
EMC ACADEMIC ALLIANCE

EMC collaborates with colleges and universities worldwide to help prepare students for successful careers in a transforming IT industry. The EMC Academic Alliance program offers unique 'open' curriculum-based education on technology topic such as cloud computing, big data analytics, information storage and management, and backup recovery systems and architecture. All courseware and faculty training are offered at no cost to qualifying higher education institutions.

The courses focus on technology concepts and principles applicable to any vendor environment, enabling students to develop highly marketable knowledge and skills required in today's evolving IT industry.

WHAT DOES THE IT LANDSCAPE LOOK LIKE FOR GRADUATES?

The IT industry is being redefined. The digital age now features what IDC terms the "3rd Platform[1]", built on a foundation of mobility, cloud, big data, and social. Today's data centers, built largely on "2nd Platform" technologies, represent the physical foundation underneath the cloud, and are thus a crucial component of the 3rd Platform. Graduates starting careers in IT will need to be knowledgeable on the technologies of both platforms in order to help find new ways to innovate around existing infrastructure, and dive into a future of 3rd Platform computing.



The digital universe, populated by billions of mobile, cloud-enabled users and devices, is predicted to grow 10x (from 4.4 to 44 zettabytes) in the next seven years[2].

[1]**Source: IDC Predictions 2014: Battles for Dominance — and Survival — on the 3rd Platform**, Dec 2013. By: Frank Gens, IDC Predictions 2014 Team

[2]Source: EMC Digital Universe with Research and Analysis by IDC, The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things, April 2014.

Contributing to this exponential growth is the "Internet of Things" (IoT). Through the IoT, computerization has literally moved to billions of Internet-enabled objects: from clothing to home security systems, community surveillance systems, and in all manner of consumer items through sensors, intelligent systems, and applications. Organizations of all types are being presented with greater opportunities to analyze new streams of data, gain more value from the data they already have, realize efficiencies, and obtain a whole new level of insight into their customers and markets.

In addition, information storage and management has evolved dramatically to be cheaper, faster, more secure, and with more capacity than ever imagined. Data centers are increasingly becoming software-defined enterprises – featuring virtualized architectures where resources are abstracted, pooled, and automated. This shift from traditional to software-defined data center will provide IT departments with enormous potential to deliver IT as a customizable, on-demand service.

WHAT NEW ROLES WILL BE AVAILABLE FOR GRADUATES?

Tomorrow's IT organization—an IT as a Service organization—will present many challenges and opportunities. IT professionals will be responsible for more data than ever, derived from new sources and in new formats. They will need to not only build and maintain technology assets, but also orchestrate services to enable the business to consume them effectively in its operations, decisions, and innovations. This holds profound implications for both traditional and emerging IT roles and skills.

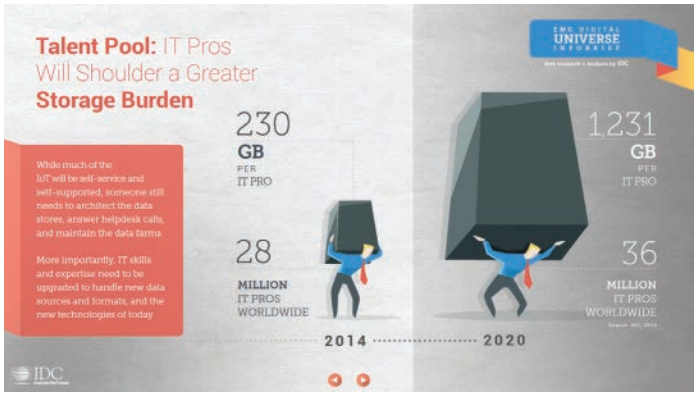
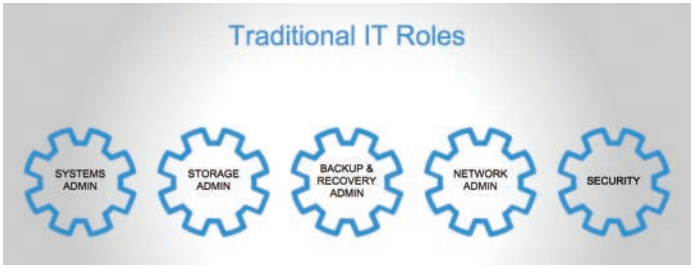
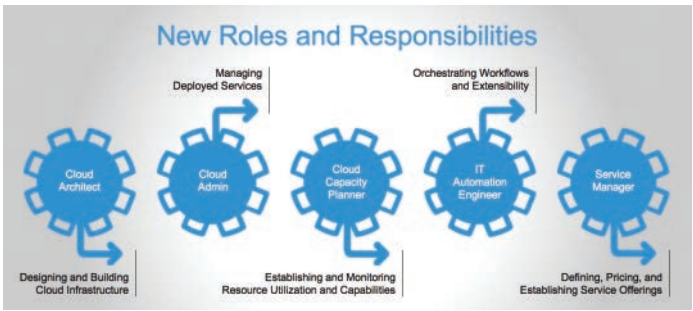


Image courtesy: IDC

Many emerging roles, such as cloud architect and cloud capacity planner, require a skill set focused on knowledge that spans across traditional IT roles as well as a focus on service.

TRADITIONAL VERSUS NEW ROLES AND RESPONSIBILITIES IN IT





To learn more on new roles and responsibilities go to http://EMC.com/microsites/edu-services-demo/index.htm

Ensuring that skills keep pace with the rate of IT innovation will challenge organizations in the coming years. To be successful in this changing landscape, IT leaders must focus on both developing and sourcing new skills for emerging roles, and on key infrastructure skills such as virtualization, where short supply hinders progress. Graduates that are well versed in both Second and Third Platform technologies will have a distinct advantage in the job market.

HOW CAN ACADEMIA AND EMC PARTNER TO HELP PREPARE STUDENTS?

Through the Academic Alliance program, EMC provides college and university faculties with curriculum options designed to fit a variety of IT-related programs. Courses on information storage and management, cloud, and data science are specifically targeted to enable students to develop highly marketable knowledge and skills to address the IT industry's top concerns.

EMC ACADEMIC ALLIANCE COURSE OFFERINGS

EMC Academic Alliance offers the following courses to prepare students for successful careers in the new IT landscape.

For complete course details go to http://education.EMC.com/AcademicAlliance/Courses

INFORMATION STORAGE AND MANAGEMENT (ISM) v3

Gain the skills needed to make informed decisions on storage-related technologies in increasingly complex IT environments, which are fast changing with the adoption of software-defined infrastructure management and Third Platform technologies. In this 16-module 'open' course, students will learn the architecture, features, and benefits of Third Platform technologies, software-defined storage, securing and managing storage infrastructure, and more.

Module 1:	Introduction to Information Storage
Module 2:	Third Platform Technologies
Module 3:	Data Center Infrastructure
Module 4:	Intelligent Storage Systems
Module 5:	Block-based Storage System
Module 6:	File-based Storage System
Module 7:	Object-based and Unified Storage
Module 8:	Software-defined Storage
Module 9:	Fibre Channel SAN
Module 10:	Internet Protocol SAN
Module 11:	Fibre Channel over Ethernet SAN
Module 12:	Introduction to Business Continuity
Module 13:	Backup and Archive
Module 14:	Replication
Module 15:	Securing the Storage Infrastructure
Module 16:	Managing the Storage Infrastructure

PRE-REQUISITE KNOWLEDGE:

Instructors and students will benefit from pre-requisite experience and education in the following areas:

- Computer systems and architectures
- Networking technologies and administration
- Operating systems, file systems, and data structures
- Computer systems administration and integration

SUPPLEMENTAL RESOURCES:

View Small Private Online Course Introduction here:
https://youtu.be/5eW2JmJLzwk

AVAILABLE INDUSTRY RECOGNITION: EMC ACADEMIC ASSOCIATE – INFORMATION STORAGE AND MANAGEMENT

Free online assessment, proctored by faculty at your convenience. Passing score earns students this recognition.

Next Step: EMC Proven Professional – Information Storage and Management (E05-001)
EMC Proven Professional Associate certification
Exam administered at Pearson VUE testing centers in a controlled, proctored environment
Certification discounts available to EMC Academic Alliance member students and faculty

CLOUD INFRASTRUCTURE AND SERVICES (CIS) v2

Gain the skills needed to make informed decisions on technologies, processes, and mechanisms required to build a cloud infrastructure. The course introduces the cloud computing reference model which includes five fundamental layers (physical, virtual, control, orchestration, and service) and three cross-layer functions (business continuity, security, and service management).

Module 1: Introduction to Cloud Computing
Module 2: Building the Cloud Infrastructure
Module 3: Physical Layer
Module 4: Virtual Layer
Module 5: Control Layer
Module 6: Service and Orchestration Layers
Module 7: Business Continuity
Module 8: Security
Module 9: Service Management

PRE-REQUISITE KNOWLEDGE:

Instructors and students will benefit from pre-requisite experience and education in the following areas:

- Computer systems, architectures, and administration
- Networking technologies and network administration
- Operating systems, file systems, and data structures
- Systems integration

SUPPLEMENTAL RESOURCES:

- Cloud And IT-as-a-Service For Business Transformation: Free 90-minute e-Learning providing Business Leaders and their teams with the definitions, concepts, skills and strategies to leverage Cloud Computing and ITaaS for agility and efficiency within their organizations. http://education.emc.com/transform
- Cloud Infrastructure and Services student guide
- Lab activities from NDG http://www.netdevgroup.com/content/emc/

AVAILABLE INDUSTRY RECOGNITION: EMC ACADEMIC ASSOCIATE – CLOUD INFRASTRUCTURE AND SERVICES

Free online assessment, proctored by faculty at your convenience. Passing score earns students this recognition

Next Step: EMC Proven Professional – Cloud Infrastructure and Services (E10-002)
EMC Proven Professional Associate certification
Exam administered at Pearson VUE testing centers in a controlled, proctored environment
Certification discounts available to EMC Academic Alliance member students and faculty

DATA SCIENCE AND BIG DATA ANALYTICS

Providing 40 hours of content, this 'open' course takes a hands-on practitioner's approach to the foundational techniques and tools required for data science and big data analytics. The course focuses on concepts, principles, and techniques applicable to any technology environment and industry and establishes a baseline that can be enhanced by further formal training and additional real-world experience.

Module 1:	Introduction to Big Data Analytics
Module 2:	Overview of Data Analytics Lifecycle
Module 3:	Using R for Initial Analysis of the Data
Module 4:	Advanced Analytics and Statistical Modeling for Big Data – Theory and Methods
Module 5:	Advanced Analytics, and Statistical Modeling for Big Data – Technology and Tools
Module 6:	Concluding and Operationalizing an Analytics Project
Module 7:	Big Data Analytics Lifecycle Lab

PRE-REQUISITE KNOWLEDGE:

Instructors and students will benefit from pre-requisite experience and education in:

- Computer Science
- Mathematics, statistics, and statistical modeling
- Computer programming

SUPPLEMENTAL RESOURCES:

- Data Science and Big Data Analytics For Business Transformation: Free 90-minute self-paced module for executives who plan to develop new Data Science capabilities and would like concrete examples of how organizations are taking advantage of Big Data for data-driven decision-making. http://education.emc.com/transform
- Data Science and Big Data Analytics student guide
- Structured lab with minimal infrastructure requirements and using open source tools

Next Step: EMC Proven Professional – Data Science and Big Data Analytics (E20-007)
EMC Proven Professional Associate certification
Exam administered at Pearson VUE testing centers in a controlled, proctored environment
Certification discounts available to EMC Academic Alliance member students and faculty

BACKUP RECOVERY SYSTEMS AND ARCHITECTURE (BRSA)

This 'open' course covers backup and recovery infrastructure and the concepts and technologies used in Backup and Recovery environments. Providing 40 hours of content, this course is for those who wish to specialize in this particular storage domain.

Module 1: Backup Theory
Module 2: Information Storage Concepts
Module 3: Backup Client
Module 4: Backup Storage Node
Module 5: Backup and Recovery Planning

PRE-REQUISITE KNOWLEDGE:

Instructors and students will benefit from pre-requisite experience and education in:

- Computer architecture and storage systems
- Networking technologies and network administration
- Operating systems, file systems, and data structures
- Backup and recovery concepts
- Virtualization concepts

SUPPLEMENTAL RESOURCES:

- Backup Recovery Systems and Architecture student guide

Next Step: EMC Proven Professional – Backup Recovery Systems and Architecture (E20-005)
EMC Proven Professional Associate certification
Exam administered at Pearson VUE testing centers in a controlled, proctored environment
Certification discounts available to EMC Academic Alliance member students and faculty

BUSINESS TRANSFORMATION MODULES

CLOUD AND IT-AS-A-SERVICE FOR BUSINESS TRANSFORMATION MODULE

A 90+ minute self-paced module that provides an understanding of cloud computing and ITaaS definitions, concepts, skills, and strategies that organizations leverage to achieve agility and efficiency.

This module addresses key questions from faculty, aspiring IT professionals, and academicians on:

- Key elements and best practices for services governance
- Services costing and financial transparency
- New roles, skills, and technology requirements to support IT service delivery
- Leveraging tips and practical experience from EMC IT's own ITaaS transformation

Visit: http://education.EMC.com/Transform

DATA SCIENCE AND BIG DATA ANALYTICS FOR BUSINESS TRANSFORMATION MODULE

A 90+ minute self-paced module that provides concrete examples of how organizations are leveraging Big Data for data-driven decision-making.

This module helps identify opportunities to solve business challenges using advanced analytics, develop the expertise to lead an analytics team, and learn how to:

- Identify business drivers for predictive analytics
- Develop effective Data Science teams that drive innovation through analytics
- Define a strategy to enable transformation to data-driven decision making
- Lead a project driven by a well-defined, repeatable, and scalable data analytics lifecycle

Visit: http://education.EMC.com/Transform

GETTING STARTED WITH THE EMC ACADEMIC ALLIANCE PROGRAM

To be eligible to participate in the EMC Academic Alliance program, institutions must be accredited, degree-granting institutions of higher education.

EMC course materials can only be used as part of a structured syllabus leading to undergraduate (Associate or Bachelor) or post-graduate academic credit.

All institution applications will be reviewed by the EMC Academic Alliance program team for alignment with program goals. Complete membership terms and conditions can be found at http://education.EMC.com/AcademicAlliance

PROGRAM BENEFITS

EMC Academic Alliance registered faculty members will receive:

- ## READINESS TRAINING
  Free faculty readiness training is provided through Video Instructor-led Training (Video-ILT). Delivered by subject matter experts, this training mode provides a near-classroom experience including white boarding, lab exercises, student questions, and course materials.
- ## COURSEWARE
  Comprehensive instructor materials include course slides, facilitator guide, student exercises, and case studies.

- ## EMC ACADEMIC ASSOCIATE - FREE ONLINE TESTING
  Proctor accounts are provided to administer the end-of-course EMC Academic Associate test. A passing score will earn students' the designation of "EMC Academic Associate", an EMC-issued certificate, and rights to use the Academic Associate logo.
- ## COMMUNITY
  Registered faculty are granted access to private Faculty Community with teaching resources and a networking forum. Students have access to an online community focused on Industry Readiness.

EMC² Academic Alliance PROVEN PROFESSIONAL

PROGRAM REQUIREMENTS

EMC Academic Alliance members are required to report registration data (number of students per class) each term a course is taught. Faculty may also be requested to provide EMC with data and/or feedback on a course implementation and delivery.

Data/feedback requested may include, without limitation, promotion, instructor performance, feedback for improving EMC courses, and student evaluations. Participating institutions will maintain their standing in the program by teaching the approved courses. The minimum requirement is one course per 24-month period.

Scan with a QR code reader to visit our website

COLLABORATE

Interactive communities provide opportunities to ask questions and participate in discussions on technical topics and course implementation.

VISIT US

EMC Academic Alliance:
http://education.EMC.com/AcademicAlliance

Connect with our Community!
education.EMC.com/ProvenCommunity

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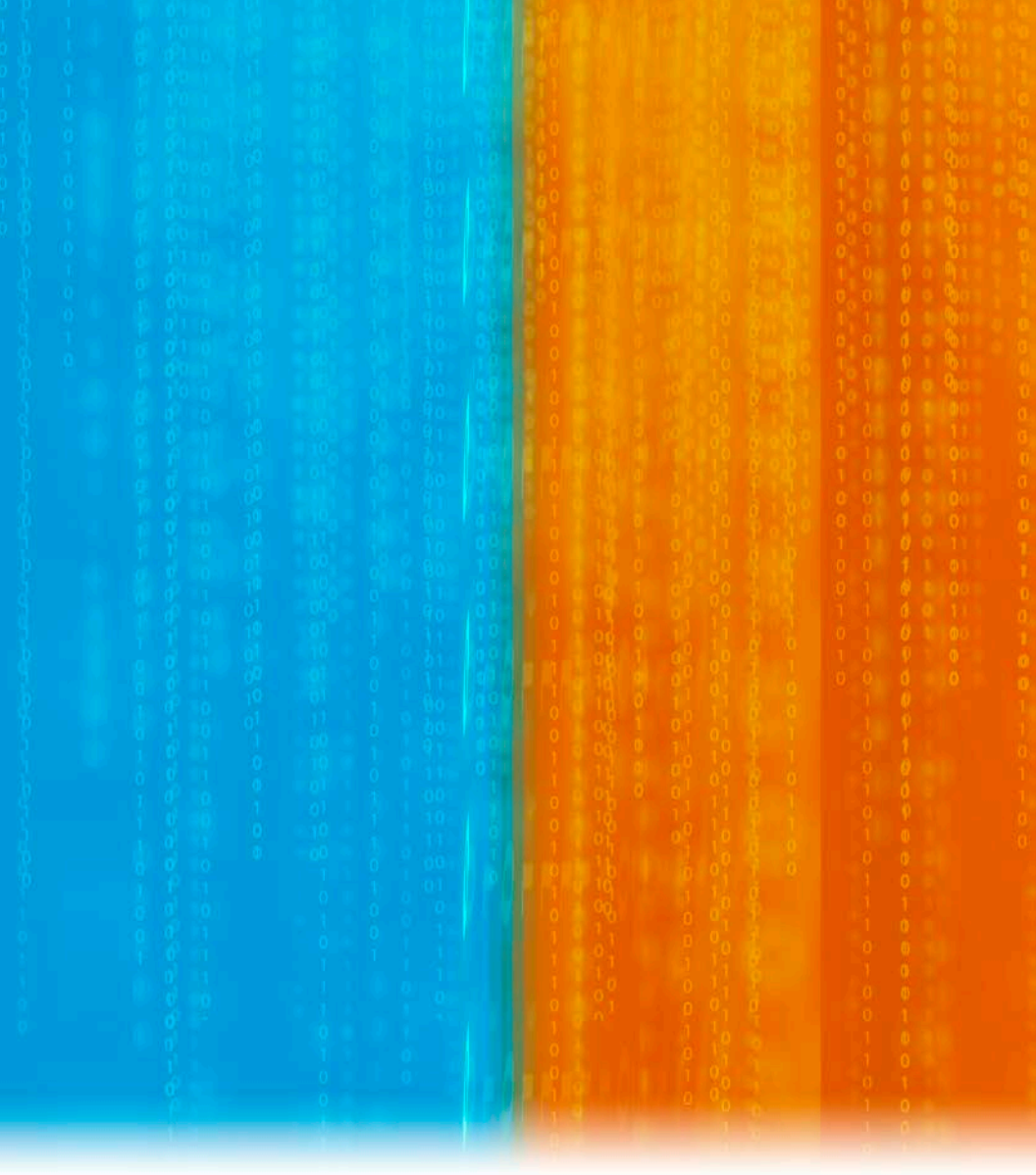
facebook.com/EMCAcademicAlliance

Follow us on Twitter!
twitter.com /EMCAcademics



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