IBM Academic Initiative

Building skills for a Smarter Planet

The Academic Initiative and you

Many college and university graduates don't have the skills businesses need most. Working with the IBM Academic Initiative, you can help better prepare your students for careers as business analysts, data scientists, cybersecurity professionals, software engineers and more.

Providing resources to help build top academic programs

The IBM Academic Initiative is a no-charge program providing educators with the training materials, curriculum guides, software and hardware needed to teach in-demand business and technology skills. From predictive analytics to data security and vulnerability management, the Academic Initiative can help you take students beyond the reach of the curricula offered at many colleges and universities. By introducing real-world challenges and technology into the classroom, the Academic Initiative gives students the hands-on experience valued by employers in today's marketplace.

Closing the skills gap

Why do we offer this? A dearth of skills plagues today's marketplace. In many parts of the world, the economy remains sluggish and unemployment remains high. Still, employers struggle to find the skilled professionals needed to address their business challenges. Sixty percent of the enterprises polled in the 2012 IBM Tech Trends Report[1]—a study surveying 1,200 IT decision makers, 250 academics and 450 students in 13 countries—report skills shortages in advanced Smarter Planet technology spaces such as business analytics and mobile development.

The numbers are similarly startling in academia. Seventy-five percent of the academics and students polled say that, primarily because of the slow pace of updating curricula and the cost involved, their institutions can't always provide students all the critical skills they need.

Building in-demand skills

Academic Initiative focus areas align with IBM's Smarter Planet initiative—a worldwide effort to harness the potential of smarter systems to provide sustainable development, improve economies, and propel societal progress. Our focus areas offer courses and resources in:

Business analytics

Preparing students for careers as:
Business analysts
Building the skills to apply business intelligence, marketing analytics, predictive analytics, financial performance management, and linear programming to obtain business insight.

60%
of enterprise respondents to 2012 Tech Trends report a shortage in business analyst skills

Big Data and information management

Preparing students for careers as:
Data scientists
Teaching the skills needed to collect, store, manage and understand data patterns and trends.

40%
of enterprise respondents to CompTIA 2012 State of the IT Skills Gap survey[2] report a shortage in Big Data and information management skills.

Information security

Preparing students for careers as:
Cybersecurity professionals
Teaching a broad array of the cybersecurity skills needed by today's businesses.

40%
of enterprise respondents to CompTIA 2012 State of the IT Skills Gap survey report a shortage in cybersecurity skills.

Software engineering and mobile development

Preparing students for careers as:
Next-generation mobile software engineers
Providing the skills and methodologies needed to keep pace with the rapidly evolving discipline of software engineering, including mobile software development.

65%
of enterprise respondents to 2012 Tech Trends report a shortage in next-generation mobile software engineering skills.

In addition to these focus areas, the IBM Academic Initiative offers curriculum building resources in business and IT, business process management, cloud computing, enterprise computing, IT service management and social business.

What Academic Initiative students are doing

- At the University of Southern California, 25 interdisciplinary teams of business and engineering students created new ways for using Watson supercomputer technology to solve real-world problems in a first-ever business-case competition sponsored by IBM.
- At Kenya's Jomo Kenyatta University of Agriculture and Technology, students are learning about mobile computing to help build transportation solutions that enable drivers to plot green travel routes—limiting fuel consumption and emissions while improving travel times.
- At Fordham University, they're helping build a Smarter Planet by mining public health databases to find correlations between health and broad categories of nutritional variables.
- At the National University of Singapore, students participate in degree programs in business analytics and engage in real-life projects to help clients in retail and industrial sectors gain greater insight from Big Data.
- At North Carolina State University, they're learning how to build healthcare applications that comply with the Health Insurance Portability and Accountability Act.

Why partner with IBM?

Since its inception in 2004, the IBM Academic Initiative has helped 37,000 faculty members at more than 13,000 institutions prepare more than 3.8 million students for careers in technology. Here's why so many institutions choose to partner with the IBM Academic Initiative:

- As a company, IBM specializes in innovation. Look at our annual report[3] to learn more. We are continuously transforming our products and methodologies to provide the greatest value possible to our clients. We bring this same outlook to the resources provided through the IBM Academic Initiative.

- The breadth of offerings that the IBM Academic Initiative offers you and your students—training materials, curriculum guides, software, hardware and cloud capabilities—is hard to match.
- Our offerings are available to you at no charge.
- We help train faculty in the use of our course materials, curriculum guides and software.
- Our curricula introduce real-world challenges into the classroom, helping students develop market-ready skills.
- Joining the IBM Academic Initiative makes you a part of a leading edge group of thinkers and doers. In our Knowledge Exchange, for example, you can interact with a worldwide community of academic partners who are developing new curricula to help students learn about new trends and solutions.

About our resources

The IBM Academic Initiative offers dozens of software programs for use—at no charge—in the classroom. Software programs include such popular titles as Cognos Business Intelligence, DB2 Enterprise Developer, InfoSphere BigInsights and InfoSphere Guardium Standard Vulnerability Assessment for Databases. Many of these programs are available via the IBM cloud, so you don't have to worry about downloading them to or installing them on campus computers. The Academic Initiative also provides educators and students with remote access to IBM hardware, including IBM Power Systems and System z mainframes. Learn more about our software and hardware on the IBM Academic Initiative web site.

Next steps

Are you ready to explore partnerships that can help your university address the technology skills gap? If you are a provost who wants to discover possible new areas of concentration to increase the competitiveness of your university, be sure to read the IBM Tech Trends report and encourage others to understand the value of the IBM Academic Initiative.

If you are a dean or a member of the teaching faculty, and you want to explore new programs or courses, visit the Academic Initiative web site for an overview of the learning resources, software and hardware offered. Then take a few minutes to fill out the Academic Initiative application form.

Once your application is approved, you can begin using our curriculum guides, training materials and software. You can also begin connecting with other professionals in our Knowledge Exchange.

Give your students an edge. Become a part of the IBM Academic Initiative. Join today.

For more information

For more information, visit the following website:
ibm.com/academicinitiative

[1] 2012 IBM Tech Trends Report, IBM, 2012, ibm.co/techtrendsreport2012

[2] CompTIA: 2012 State of the IT Skills Gap, CompTIA, 2012, http://www.comptia.org/research.aspx

[3] IBM Annual Report, IBM, 2012, ibm.com/annualreport/2012/ghv

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