building

the workforce of tomorrow, today

Microsoft IT Academy Program

Helping students achieve industry recognized skills and certification on the latest technology.

Microsoft IT Academy provides resources that benefit all students. Acquiring skills on the latest technologies helps students to become better collaborators, communicators, critical thinkers, innovators, problem solvers and citizens of our global economy. More than 50% of today's jobs require some degree of technology skills, and experts say that percentage will increase to 77% in the next decade.[1]

Studies suggest that in the next 5 to 10 years there will be a significant shortage in the supply of skilled IT professionals.[2] Over the next four years, IT employment will rise by 5.8 million jobs and 51% of all IT jobs will be software related, creating 75,000 new businesses.[2]

Microsoft believes that technology skills are essential to the prosperity of both individuals and nations. These skills contribute to economic growth through increased productivity, and by creating greater capacity to adopt new technologies, ways of working, and new sources of innovation.[3]

Microsoft IT Academy: the complete technology education solution
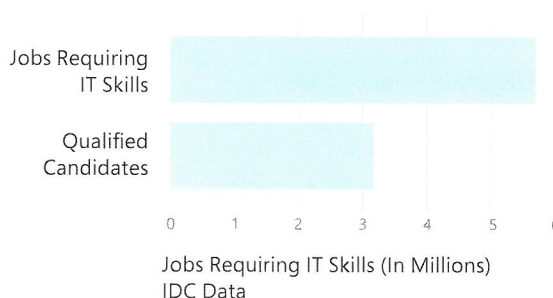
Microsoft IT Academy connects students, teachers, employers and local communities through leading-edge technology skills development. The program was developed to bridge the gap between education and the real-world by empowering students with the IT skills they'll need for college and for a career in today's technology-centered job market. The program also enables educators by providing the professional development resources they need to be successful in the classroom.

Membership is open to all primary, secondary, post-secondary, preparatory schools, vocational and trade or technical accredited educational institutions, libraries, museums and accredited sources of continuing education and those qualifying for Microsoft Volume Licensing academic agreements.

PROJECTED IT SKILLS GAP

Percentage of Jobs Requiring IT Skills
IDC Data
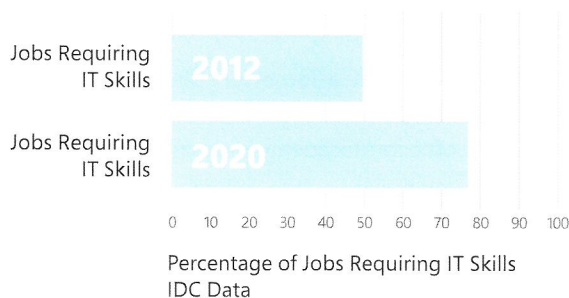
IT SKILLS REQUIRED IN 2020

Jobs Requiring IT Skills (In Millions)
IDC Data

Microsoft

Microsoft IT Academy benefits for students, teachers, academic institutions and employers.

If you join the Microsoft IT Academy (ITA) Program, you will get a full curriculum for teaching technology courses and learning tools that help students achieve success. ITA enables you and your institute to offer training not only on fundamental technology skills but also technical courses for your students who are interested in pursuing a career in IT after graduation.

PROGRAM BENEFITS

Curriculum

- The **Microsoft Digital Literacy curriculum** provides essential computing skills for learners new to computing
- The **Microsoft E-Learning curriculum** provides unlimited access to more than 400 courses aligning with Microsoft IT Academy programs
- Ready-to-use, customizable **lesson plans** including links to relevant Microsoft E-Learning and free demos and videos
- **E-reference** provides digital access for educators to more than 600 technology books, searchable by topic, technology and subject
- The **Microsoft Official Academic Course (MOAC)** series delivers a complete learning and teaching framework developed specifically for use in an academic setting
- **Microsoft Official Courseware (MOC)** is instructor-led training intended for IT professionals and developers who build, support, and implement solutions by using Microsoft technologies

Professional Development

- The **Teaching with Technology Curriculum** is online learning that helps educators integrate Information and Communications Technology (ICT) into their practice
- The **Microsoft Innovative Educator (MIE)** program provides trainers the opportunity to expand their skills integrating technology in their teacher training to positively impact teaching and learning

- **Teacher Starter Kits** include exam vouchers for Microsoft Office Specialist and Microsoft Technology Associate certification exams to enable educators to obtain globally recognized certification
- **Microsoft Certified Trainer (MCT)** provides tools, resources, and other benefits to support and help Microsoft IT Academy educators thrive as both technologists and educators

Certification

Microsoft Certifications differentiate students in today's competitive job market and broaden their employment opportunities. Certified students can support businesses by providing the expertise to optimize the use of Microsoft tools and solutions.

- **Microsoft Office Specialist (MOS)** exams prepare your students to be more productive in school and business careers
- **Microsoft Technology Associate (MTA)** exams provide an entry-level opportunity to explore various technical careers
- **Microsoft Certified Solutions Associate/ Expert** exams provide steps to validation of a student's ability to design and build innovative solutions across multiple technologies, both on-premise and in the cloud

Microsoft IT Academy provides the steps to establish a Certiport or Prometric testing center on your campus. Microsoft IT Academy members receive academic discounts for Microsoft Certification exams.

Pass a Microsoft Certification exam and apply for US college credit via the ACE College Credit Recommendation Service: www.acenet.edu/credit

Resources and Partnership

- **Easy to Use Private Members Site** with access to all program information, support, and resources in one place
- A listing in the **online Microsoft IT Academy locator** for discovery by millions of potential students
- **Microsoft IT Academy blog** that can help you stay up to date on announcements and benefits
- Quarterly **Microsoft IT Academy Newsletters** keeping Microsoft IT Academies up-to-date with offers and best practices
- Download and print co-branded **Certificate of Completion** certificates for students who have completed any of the Microsoft Certifications
- **Marketing materials,** press kits and videos to help promote your Microsoft IT Academy to parents, communities and governmental leaders
- **Marketing campaigns and special offers** for certifications and student activities
- Access to the **Microsoft Regional Support Center** for program enquiries and assistance
- A comprehensive **Welcome Kit** with program membership plaque

How do I get started?

Microsoft IT Academy is an annual subscription acquired through these Microsoft Academic Volume Licensing programs:

- Enrollment for Education Solutions (EES)
- Open Value Subscription for Education Solutions (OV-ES)
- Campus or School Agreements
- Academic Select and Select Plus Agreements

For more information, contact your Academic Licensing Reseller or visit www.microsoft.com/licensing/licensing-options/for-industries.aspx

Microsoft Office Certification offers discounted pricing:

- Academic pricing on Microsoft Official Courseware (MOC) www.microsoft.com/itacademy/program-benefits/curriculum.aspx

- Academic pricing on Microsoft Certification exams www.microsoft.com/itacademy/program-benefits/certification.aspx

→ For more information go to **www.microsoft.com/itacademy**

■■ Microsoft

optimize
program effectiveness

With Microsoft Certification, educators are able to validate their students' technology skills, which helps them stand out from the crowd and enhance their education and career prospects.

91%

of hiring managers consider employee certification as a criterion for hiring.[1]

81%

of hiring managers believe certified individuals perform better than non-certified peers.[1]

For more than 20 years, Microsoft Certification has been the IT industry's most respected validation of technology skills.

Technology is everywhere. There is a need to provide students the appropriate business software and technology skills necessary in everyday life, whether it is basic computer skills or advanced technical skills. Almost every job today requires some form of technology skills. Students who hold a Microsoft Certification can prove their proficiency.

A thriving industry

Worldwide, Microsoft Office holds 94% of the market share (500 million customers).[2] Students need skills on Microsoft Office whether they are moving toward advanced education or looking for a business career.

A lifetime of benefits

By earning a Microsoft Certification, students will:

- have a firm measure and increased confidence in their skills
- achieve a higher degree of success in their pursuit of higher education or a career in technology
- gain recognition among peers and employers, and a distinct edge in the competitive job market
- demonstrate their skills on the latest technologies
- chart a career development path for ongoing advancement of Microsoft technology skills

MOS certification: the global standard in Microsoft Office productivity

Educators can help students validate their skills through the **Microsoft Office Specialist (MOS) certification program**. For students whose sights are set on a career in business, Microsoft Office certifications are offered at three levels:

Microsoft Office Specialist

MOS certification is the recognized standard for core Microsoft Office skills.

Microsoft Office Specialist–Expert

MOS Expert certification recognizes an authority on advanced Microsoft Office functionality.

Microsoft Office Specialist–Master

MOS Master certification is the pinnacle distinction for outstanding proficiency with the Microsoft Office suite.

MTA certification: the first step to a career in IT

For students considering a career in information technology, **Microsoft Technology Associate (MTA) certification** is the first step. MTA certification validates a student's knowledge of technology fundamentals, and helps them stand out when submitting college and internship applications. MTA proves their understanding of a variety of entry-level technology concepts.

Microsoft

Microsoft Technology Certification: A clear path to success

Attract new students by offering certification on the latest technologies. Microsoft's certification program is straightforward and helps students acquire the technology skills they need to be successful in college and a career.

Start with MTA

Microsoft Technology Associate (MTA) certification is an optional first step to progressing on to more technical certifications. The MTA certification validates core technology concepts in infrastructure, database and development.

Progress with MCSA

Microsoft Certified Solutions Associate (MCSA) validates deeper skills on Microsoft technology and is a prerequisite for becoming an MCSE.

Earn your MCSE or MCSD

Microsoft Certified Solutions Expert (MCSE) and Developer (MCSD) certifications are the global standards for IT excellence and distinguish individuals with deep expertise.
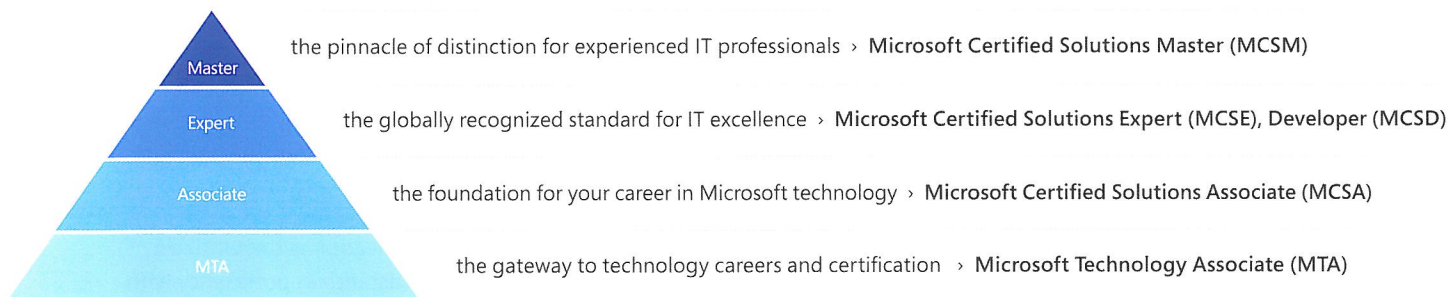
Microsoft Certifications complement institution curriculum, programs and reputation. Through certifications, educators can help students get recognized by peers and hiring managers.
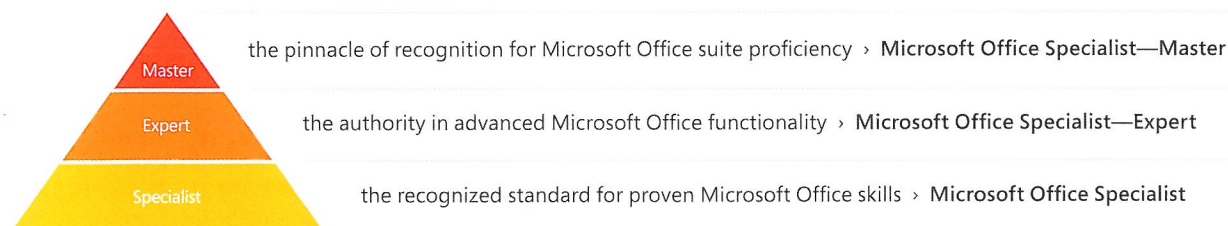
Resources

The Microsoft IT Academy program provides all the curriculum and lab resources an educator needs to prepare students for certification. To learn more about the resources available, visit **www.microsoft.com/itacademy**

Microsoft Technology Certification Tracks

Note that MTA is recommended---but not required--- for the Associate and Expert level certifications.

Master — the pinnacle of distinction for experienced IT professionals › **Microsoft Certified Solutions Master (MCSM)**

Expert — the globally recognized standard for IT excellence › **Microsoft Certified Solutions Expert (MCSE), Developer (MCSD)**

Associate — the foundation for your career in Microsoft technology › **Microsoft Certified Solutions Associate (MCSA)**

MTA — the gateway to technology careers and certification › **Microsoft Technology Associate (MTA)**

Microsoft Office Certification Tracks

Master — the pinnacle of recognition for Microsoft Office suite proficiency › **Microsoft Office Specialist—Master**

Expert — the authority in advanced Microsoft Office functionality › **Microsoft Office Specialist—Expert**

Specialist — the recognized standard for proven Microsoft Office skills › **Microsoft Office Specialist**

For more information go to www.microsoft.com/itacademy

Microsoft

Microsoft IT Academy Program

The Microsoft Account Team for the State of Iowa

The Microsoft IT Academy Statewide Solution Framework for the State of Iowa

Iowa's goal of preparing students to live, learn, and work as productive citizens in the 21st century is a goal that Microsoft shares with the State.

We are excited to demonstrate how we can support Iowa Governor Terry Branstad and the Governor's Science, Technology, Engineering and Mathematics ("STEM") Advisory Council.

It is our understanding that the Iowa Governor's STEM Advisory Council has the following expressed priorities, which support the goals listed in the Governor's Executive Order 74: _Student Interest and Achievement_; _Technology Enhanced Instruction for Global Learning_; _STEM Teacher Recruitment and Preparation_; _STEM Learner Readiness for Post-Secondary Education and Career_; _STEM Education Policy_; _Public Awareness of the Importance of STEM Education for the Economy and Society_; _Public/Private Partnerships and Mapping STEM Education to Economic Development_; and _STEM for ALL – the Highly-Abled, Under-Represented, and Nontraditional._[1]

We believe in these priorities and would like to propose a customized, statewide Microsoft IT Academy solution specifically designed to help drive _employability in Iowa_, _digital literacy_, _technical and STEM-focused training_, and _industry-recognized Microsoft certifications_.
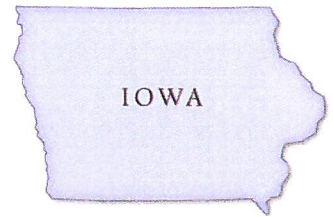
The Microsoft IT Academy Program delivers the very latest IT curriculum for students, ongoing professional development for Iowa instructors, and provides educational institutions with the instant recognition and credibility of the Microsoft brand.

The Program provides a complete IT education solution that bridges the world of education with the fast-changing world of work. In addition to boosting workforce readiness, the Program also helps drive academic transition and pre-college preparation for students eager to pursue higher education with a focus on advanced technology and STEM-related subjects.

A search for ICT jobs in Iowa requiring Microsoft certifications and technology skills results in more than 1,700 hits.[2]

Employers expect and demand skilled IT workers and IT job-ready hires that can succeed in the dynamic "tech savvy" international marketplace. In order to be productive members of the workforce and society, it is imperative that students not only graduate from high school, but also graduate with real-world technology skills and validated credentials.

IOWA

With more than 13,000 Microsoft IT Academy members in 160 countries (including 10 statewide IT Academy partnerships nationally), academic institutions and employers worldwide increasingly look to the Microsoft IT Academy Program to offer the latest IT education programs for Microsoft technologies (the Program is growing at an annual rate of 40%).

Preparing All Iowa Students to Live, Learn, and Work as Productive Citizens in the 21st Century

A statewide, customized Microsoft IT Academy solution for Iowa will demonstrate the depth of our investment and commitment to ensuring a successful, sustainable program in all Iowa high schools while supporting goals of driving measureable student outcomes through Microsoft certification.

A Customized Microsoft IT Academy Solution for Iowa Would Benefit:

- _All high school students, including home-schooled students and students living in rural areas of the State._
- _All high school teachers and staff, including IT and technical staff._
- _All Iowa communities at the local level._
- _All Iowa Department of Education staff._

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[1] Source: http://www.iowastem.gov/targeted_priorities, January 20, 2013
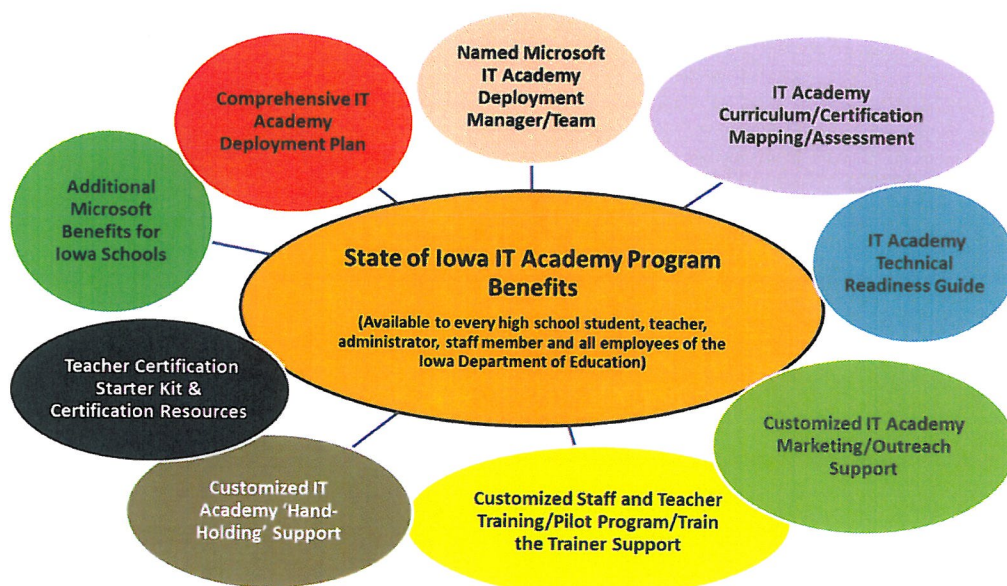
[2] Source: Indeed.com, January 20, 2013

Microsoft

Microsoft IT Academy Aligns With the Overarching Iowa Mission of Preparing Students for the 21st Century

It is RELEVANT by addressing statewide goals of ensuring that students are college-and-career-ready. It is INNOVATIVE by keeping pace with the leading-edge educational vision for Iowa. It is SUSTAINABLE by providing a framework for long-term success. In addition, it will support Iowa high school goals including:

- Helping high school students' graduate with **industry-recognized** Microsoft certifications to be competitive in the rapidly evolving 21st century workplace.
- Helping meet **statewide economic development** objectives, capitalizing on job and workforce demands, and preparing the next generation Iowa workforce for IT/STEM and IT-infused jobs across industry sectors.
- Creating a **sustainable** long-term learning framework for the high schools of Iowa that benefits students, teachers, school staff, and the broader community and that delivers measurable learning outcomes.
- Supporting Iowa leadership in **innovative** IT education reform.

- Ensuring **equality of access** for all Iowa high school campuses regardless of location, size, or economic status.
- Providing Iowa CTE directors, teachers, and staff with the necessary **training, guidance, tools, and support** to most effectively benefit from the Microsoft IT Academy Program.
- Leveraging existing Iowa IT curriculum with an additional and enhanced IT education solution that is meaningful and relevant by **mapping to industry-recognized** Microsoft skills standards and certifications that align to the requirements of the workplace.
- Providing schools with industry-relevant, skills-based learning aligned to Microsoft certifications and emphasizing **articulation of learning** among high schools and postsecondary schools, including recognition of academic, higher-level credit for attainment of Microsoft certification.
- Promoting a foundation for **lifelong learning**—the ability to adapt and upgrade individual skills in a rapidly changing world—by providing the building blocks of essential skills students require to be active, lifelong learners in a technology intensive environment, and to compete and be at the forefront of the 21st-century global economic system

Iowa Microsoft IT Academy Customized Framework

A customized Microsoft IT Academy Program for Iowa would include all of the following components.

State of Iowa IT Academy Program Benefits
(Available to every high school student, teacher, administrator, staff member and all employees of the Iowa Department of Education)

- Comprehensive IT Academy Deployment Plan
- Named Microsoft IT Academy Deployment Manager/Team
- IT Academy Curriculum/Certification Mapping/Assessment
- Additional Microsoft Benefits for Iowa Schools
- IT Academy Technical Readiness Guide
- Teacher Certification Starter Kit & Certification Resources
- Customized IT Academy Marketing/Outreach Support
- Customized IT Academy 'Hand-Holding' Support
- Customized Staff and Teacher Training/Pilot Program/Train the Trainer Support

Microsoft

Iowa IT Academy Statewide Deployment Framework

As part of our commitment to providing Iowa high schools with the most productive experience possible, included with a statewide Microsoft IT Academy solution for Iowa is provision for a comprehensive and customized Microsoft IT Academy Deployment Framework including administrator outreach, teacher training and readiness, on-boarding tools, ongoing support, and much more.

Our comprehensive Deployment Framework will demonstrate the depth of our investment and commitment to ensuring that the Microsoft IT Academy Program is successfully deployed in Iowa high schools and that we are tangibly supporting your goal of driving measurable 21st century student outcomes via Microsoft certification.

"In today's economy, providing the Microsoft IT Academy to high school students just makes sense."

—June Atkinson
North Carolina State School Superintendent

Iowa Statewide Deployment Overview

The deployment solution for the State of Iowa will be customized to help ensure that together, we drive a successful deployment of Microsoft IT Academy to your high schools. We take our partnership with you very seriously and are committed to providing you with the most successful deployment and program experience possible.

Our vision of a successful deployment includes:

- Collaborating with you to plan a custom deployment program and timeline that meets your needs while applying best practices from other large-scale deployments.
- Providing ample resources for CTE directors, teachers, and IT staff, including trainings, readiness materials, and support paths to ensure the most positive experience with the program.
- Ongoing engagement with you to monitor and evaluate each deployment phase to achieve mutually defined success outcomes.

A high-level framework of the proposed Deployment Solution, including the four key phases below, reflects our commitment to ensuring that the Microsoft IT Academy Program is successfully deployed in all Iowa high schools.

Key Phases	Description
1	Microsoft Learning deployment team meets the Iowa IT Academy team to discuss the scope and details of deployment including scheduling, pilot program, desired outcomes, and dependencies.
2	Iowa IT Academy lead provides Microsoft with a list of Iowa high school names, addresses, and an initial primary contact at each of the campuses (template will be provided). The high school campus may amend the initial primary contact at any time.
3	Based on detailed discussions with the Iowa IT Academy team, Microsoft Learning will draft a detailed IT Academy Deployment Plan for review and approval.
4	The Iowa IT Academy Deployment Plan (including roles and responsibilities for Iowa and Microsoft Learning) is approved and phased implementation begins with administrator and teacher training and the pilot launch.

Microsoft

Investment Summary

Microsoft Learning is committed to supporting the State of Iowa in its guiding mission and educational goals and will create a customized, statewide Microsoft IT Academy Program and Deployment Solution. The program is designed to serve every Iowa high school for a three-year agreement period.

To help the state of Iowa meet its educational goals, and to support the ongoing innovation of Iowa leadership, Microsoft Learning is able to provide a price of US $1,584 (ERP) per high school per year for a statewide Microsoft IT

Academy solution. This includes Program access for every high school student, instructor, administrator and all employees of the Iowa Department of Education. It also includes a statewide Iowa IT Academy Deployment Solution (approximate costs in excess of $80,000).

This customized solution delivers the most holistic and rich package of benefits, training, and support from Microsoft Learning at a price that clearly demonstrates our deep level of commitment to the IT education goals of Iowa — preparing students for the 21st century workforce.

Microsoft IT Academy Program (ITA)	ITA Annual Membership Cost—Standard IT Academy Program	ITA Annual Membership Cost—Customized Iowa Solution	Total ITA Annual Cost* for Iowa (351**) Solution
Estimated Retail Price (ERP)	US $1,750 per high school	US $1,584 per high school	US $555,984 per year

* This pricing excludes any applicable taxes. The final price is determined between the State of Iowa and the Microsoft LAR/Reseller.
**Includes 350 high schools and a single membership for the Iowa Department of Education. Number of high schools based on NCES data and should be verified by the State.

Overview of Microsoft Learning

Microsoft Learning offers comprehensive learning, certification, and readiness solutions to academic and commercial customers, partners, and students and is committed to providing a lifelong technology education that ensures relevancy in the rapidly changing 21st-century world in which we live, study, and work. The program delivers:

- Leadership in driving 21st century IT education and workforce development programs.
- A complete lifelong technology learning solution including technical readiness, competencies and increased employability potential for career enablement, and enhancement.

- Industry-leading academic and commercial learning programs and solutions that help address the IT skills gap, for both technical jobs and those requiring basic IT skills.
- Learning solutions to more than 10 million industry and academic customers annually.

The program includes a global community of over 13,000 Microsoft IT Academy members, 16,000 Microsoft Certified Trainers, and 1,700 Microsoft Network Partners with Learning Competency members. During the last decade, Microsoft IT Academy has provided information and communications technologies (ICT) skills knowledge to approximately 36 million IT professionals and 15 million developers globally.

"Putting training and certification in every high school in Washington State will bridge the gap between the world of education and the world of work."

— Randy Dorn, Washington State Superintendent of Public Instruction, United States

"The Microsoft IT Academy brings greater technology to the classroom and ensures that students in every corner of the Commonwealth have access to a quality technology education."

— Bob McDonnell, Governor of the Commonwealth of Virginia, United States

Microsoft
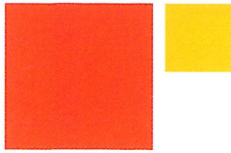
North Carolina Department of Public Instruction

Providing equal access to technology skills at all public high schools

Organization size

- › 750 employees
- › 115 school districts
- › 2,452 public and charter schools
- › about 95,000 teachers
- › 1.4 million students grades pre-K through 12

Organization profile

The North Carolina Department of Public Instruction (NCDPI) functions under the policy direction of the State Board of Education, providing leadership and guidance to the state's public schools.

For more information go to: www.microsoft.com/ itacademy

Business situation

To best prepare students for life after high school, the North Carolina Department of Public Instruction (NCDPI) searched for a way to provide all students in the state with access to technology skills training and certifications aligned with the needs of business and industry. NCDPI decided to launch the Microsoft IT Academy Program. The Microsoft IT Academy has ensured a "future proof" curriculum and certifications in which students will always be taught current technology.

A focus on Career and Technical Education is just one way that NCDPI works with school districts to help prepare students for the future. "Today's economy is hard on anyone looking for a job," says Mary Jo Nason, Section Chief, Career and Technical Education (CTE) at NCDPI. "However, the economic downturn has been especially hard on recent high school graduates. At the same time, employers are clamoring to find workers with the necessary technical skills."

The Microsoft IT Academy

The Microsoft IT Academy is a subscription-based membership program that is designed to help schools offer students and faculty learning solutions for IT skills training and certification.

"The Microsoft IT Academy is a perfect example of how our state is leading the way in preparing high school students for college and a career."

— **North Carolina Board of Education**

Benefits

As you can see from the table below, certification success exploded with the adoption of the Microsoft IT Academy Program both in district participation and certifications earned. Through this program, students in all North Carolina high schools will have equal access to licenses for Microsoft software, an e-learning environment, official Microsoft courseware, Microsoft-approved testing centers, and more. The program provides everything they need to learn real-world technology skills and earn certifications that can help them succeed when entering the workforce or continuing on to college.

NORTH CAROLINA HIGH SCHOOLS' STATEWIDE ADOPTION RATE	AUG 2009 - JUN 2010 (3 districts participating	AUG 2010 - JUN 2011 (72 districts participating)	AUG 2011 - JUN 2012 (72 districts participating)
Number of MOS certifications	21	8,794	43,630
Number of student certifications	16	8,065	42,563
Number of unique students certified	16	4,459	23,447
Number of teacher certificates	5	729	1,148
Number of unique teachers certified	3	304	507

Microsoft Office Specialist (MOS) Certifications through the Microsoft IT Academy across North Carolina's public high schools

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers in the United States and Canada who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to www.microsoft.com.

Microsoft

Boston City Campus and Business College

Strengthening a reputation for IT training and reducing costs for students

BOSTON
City Campus & Business College
Education. For Life.

Organization size

> › 625 employees
> › about 25,000 students
> › 48 campuses

Organization profile

Boston City Campus and Business College trains students for careers in a variety of fields, including IT. The school was founded in 1991.

"The savings resulting from our Microsoft IT Academy discounts make it easier for our students to achieve their certification goals."

Susan de Roos,
Managing Director,
Boston City Campus
and Business College

For more information go to:
www.microsoft.com/
itacademy

Boston City Campus and Business College in South Africa wanted to strengthen its credibility as a high-quality, affordable provider of training for Microsoft Certifications. In 2009, it joined the Microsoft IT Academy Program and the benefits were quickly realized by students, educators and staff members.

Business situation

Boston City Campus and Business College offers workplace preparation and vocational training at 48 campuses across South Africa. The college serves about 25,000 students, some in extremely remote and impoverished parts of the country.

One of the college's most popular offerings is training for IT work, a fast-growing field in South Africa. To increase IT students' employability, the college requires them to pass Microsoft Certification exams before graduating. Boston City Campus and Business College had long used Microsoft educational materials in its certificate training courses.

To differentiate itself from competitors, the college wanted to strengthen its reputation as a high-quality provider of training for Microsoft Certifications. It also wanted to help control costs for its students, many of whom have low incomes.
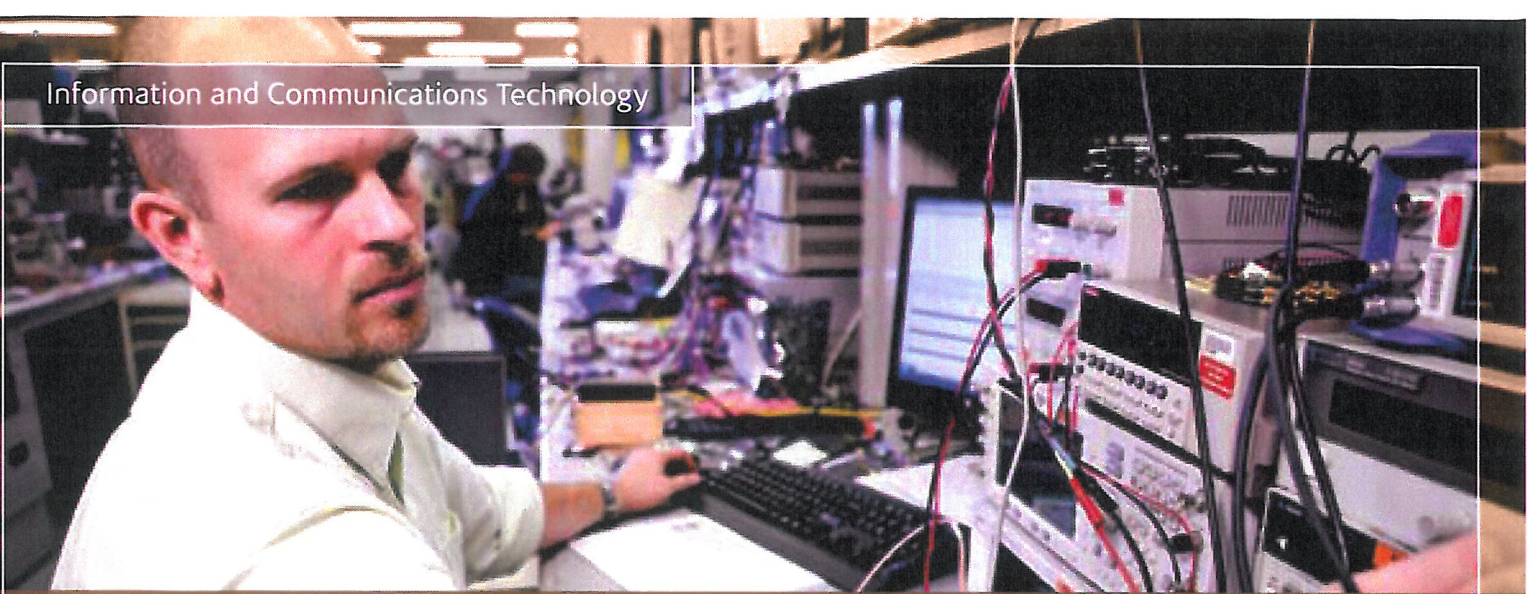
Business solution

By joining the Microsoft IT Academy Program, the college receives discounted, simplified access to such tools as the Microsoft Official Curriculum, the Microsoft Official Academic Course series, test vouchers, practice tests, lab exercises, eBooks and eLabs, and lecture and study materials.

Benefits

- **Increased student employability**
  Our world-class Microsoft IT Academy offers the hands-on skills and experience that today's graduates need to succeed in technology careers.

- **Enhanced professional development**
  Educators and other staff members have the opportunity to improve their own knowledge base with complementary resources and online courses, plus discounted software and certifications.

- **Cost savings for educators and students**

  Boston City Campus and Business College has controlled costs for its students and further strengthened its reputation as a high-quality provider of IT training.

  Students can earn certifications and college credit which help to lower future college tuition costs and advance their career opportunities.

Microsoft

Data Center Hub

Advanced Research

Cutting-edge Technologies

World-class Companies

THRIVE
in NORTH CAROLINA™

Information and Communications Technology

North Carolina has the tangibles that businesses need as well as a lifestyle that helps employees flourish. Our secret is simple: When people Thrive, business Thrives. We understand that in today's global economy, people are your greatest source of competitive advantage—happy, fulfilled employees are more productive employees. From our business resources to our human resources to our natural resources, we offer businesses what they need to create a competitive advantage and Thrive.

BEST
BUSINESS
CLIMATE

Consistently ranked among the best business climates in the nation by *Forbes*, CNBC, *Chief Executive* and *Site Selecton*.
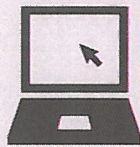
North Carolina's Distinct Advantages

North Carolina has world-renowned universities and community colleges as well as a highly skilled and productive workforce that continues to attract and keep the top information and communication technology companies here. When you add in the partnerships that our universities have with leading-edge technology companies and the state's investments in infrastructure such as an advanced broadband telecommunications network, you can see why companies here flourish.
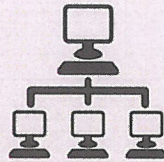
| >100,000 Workers |
| >3,000 IT Firms |

More than 100,000 workers are employed in more than 3,000 IT firms. Raleigh and Charlotte named two of top 20 "Most Wired Cities" by *Forbes* magazine.

North Carolina Research and Education Network (NCREN) is one of the world's leading statewide regional optical networks connecting most of the state's colleges and universities, school districts, community initiatives and medical and research institutions.

>5,300
IT Professionals

More than 5,300 individuals are available to fill IT occupations.

More than 1,800 upperclassmen are enrolled in computer science curricula in the state's colleges and universities.

Every year North Carolina colleges and universities graduate more than 800 students with bachelor's degrees and more than 470 students with advanced degrees in computer and information sciences.

North Carolina's 58-campus Community College System offers many information and communication technology-related curricula.

A Quality of Life That Attracts Talent

From our moderate climate with excellent recreational opportunities to our culture-rich history and a low cost of living, North Carolina has what people are looking for to Thrive.

- Moderate climate
- Culture rich in history and the arts
- World-class sports events
- Recreational opportunities
- Quality health care
- Low cost of living—housing, utilities, supplies and groceries, transportation and health care are all below the national average
- Low construction costs
- Diverse educational opportunities and jobs available

North Carolina offers an exceptional quality of life that contributes to a highly desirable place for businesses to attract and keep skilled workers.

The low cost of living in North Carolina makes it easier for our residents to take part in and enjoy all the great things that this state has to offer.

Strong Pipeline for Labor

The Microsoft IT Academy

North Carolina is the first state in the nation to implement the Microsoft IT Academy statewide to all 628 public high schools. The Microsoft IT Academy provides students with real-world technology skills they need to be successful in college and a career by giving students the opportunity to learn in-demand software and technical skills as well as earn industry-recognized certifications such as a Microsoft Office Specialist (MOS) or a Microsoft Certified Professional (MCP).

North Carolina Community Colleges offer

curricula to develop a skilled IT workforce, including:

- Computer Engineering
- Computer Information Technology
- Computer Programming
- Database Management
- Information Systems Security
- Networking Technology
- Simulation and Game Development

Fifteen of the 16 UNC System campuses plus several private colleges and universities offer computer science curricula for bachelor's degrees, master's degrees and PhDs, as well as professional certificates.

Computer science programs in the state offer instruction in essential areas, along with an emphasis on written and oral communication skills, critical thinking, marketing concepts, independence and collaboration. Key topics include:

- Algorithms
- Artificial intelligence
- Bioinformatics
- Computer graphics
- Hardware systems
- Networks
- Operating systems and architecture
- Parallel and distributed computing
- Robotics
- Security
- Software development and engineering
- Theory
- Testing
- Web and Internet computing

We have the resources, training and infrastructure needed for growth.

Council for Entrepreneurial Development (CED)

Founded in 1984 to stimulate the creation and growth of high impact companies, today it is the largest entrepreneurial support organization in the U.S. with more than 5,500 active members.

MCNC Grid Computing Networking Services

A non-profit organization delivering next-generation information technology by continuously evaluating new hardware and software in test beds and deploying leading-edge computing and networking services all supporting and advancing the competitiveness of the research and education community throughout North Carolina.

North Carolina Technology Association (NCTA)

The primary voice of the information technology industry in the state, dedicated to growing and strengthening the IT industry through increasing public awareness, promoting companies and influencing key public share information on crucial technologies.

North Carolina Research and Education Network (NCREN)

Developed in 1985, it's a reliable, robust fiber-optic network providing high-speed network services to The University of North Carolina's 16-campus system, Duke University, Wake Forest University, UNC-TV and other private universities, colleges and non-profit institutions in the state.

Initiatives that are Thriving in North Carolina

Nanotechnology

North Carolina universities and colleges are home to more than 33 research, development and education organizations and programs focused on nanotechnology.

North Carolina is also home to many nanotechnology leading minds, such as Dr. Joe DeSimone, a professor of chemical engineering at UNC-Chapel Hill and N.C. State University. Dr. DeSimone has been awarded several prestigious honors and has generated at least 12 start-up companies.

Some of the more than 70 companies working with nanotechnology in the state include:

- **Advaero Technologies,** Greensboro
- **Blue Nano,** Charlotte
- **nCoat Inc.,** Whitsett
- **Liquidia Technologies Inc.,** Research Triangle Park
- **Nextreme, Inc.,** Durham

Semiconductors and Chip Technology

Recognized for research and the development of semiconductors and chip technology, N.C. is home to many internationally known companies including:

- **Cree,** Research Triangle Park
- **Engineering Research Center for Advanced Materials Processing (AEMP),** Centennial Campus at N.C. State University
- **Infineon Technologies,** Morrisville
- **Kyma,** Raleigh
- **Lord Corporation,** Cary
- **Nitronex,** Durham
- **Photonic Devices,** Cary
- **Qualcomm,** Cary
- **RFMD,** Greensboro and Charlotte
- **Silicon Wireless Corporation,** Durham
- **Ziptronix,** Morrisville

Photonics

North Carolina has emerged as a major center for global telecommunications and photonics. More than 300 telecommunications and optical networking companies call North Carolina home including:

- **Caspian Networks,** Research Triangle Park
- **Institute for Next Generation IT Systems,** N.C. State and Duke universities
- **Tessera,** Charlotte

We also have several research initiatives dedicated to further enhancing the photonics and optical industry including:

- **Charlotte Institute for Technology Innovation,** UNC-Charlotte
- **Fitzpatrick Center for Photonics and Communications Systems,** Duke University
- **Center for Advanced Computing and Communications,** N.C. State University

Digital Media

North Carolina is on the cutting-edge of interactive digital media—from video games to serious games. Support resources in the state include the North Carolina Advanced Learning Technologies Association and the Digital Games Research Center at N.C. State University, conducting a wide variety of research focused on new modes of entertainment and interaction in digital media. With more than 30 companies and over 1,000 workers in the industry, the state is home to many of the industry's pioneers and most recognizable names including:

- **Destineer,** Research Triangle Park
- **Epic Games,** Cary
- **Electronic Arts,** Morrisville
- **Emergent Game Technologies,** Chapel Hill
- **Insomniac Games,** Research Triangle Park
- **Red Storm Entertainment,** Centennial Campus at N.C. State University in Raleigh
- **Virtual Heroes Inc.,** Research Triangle Park

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Information and Communications Technology Companies Thrive Statewide
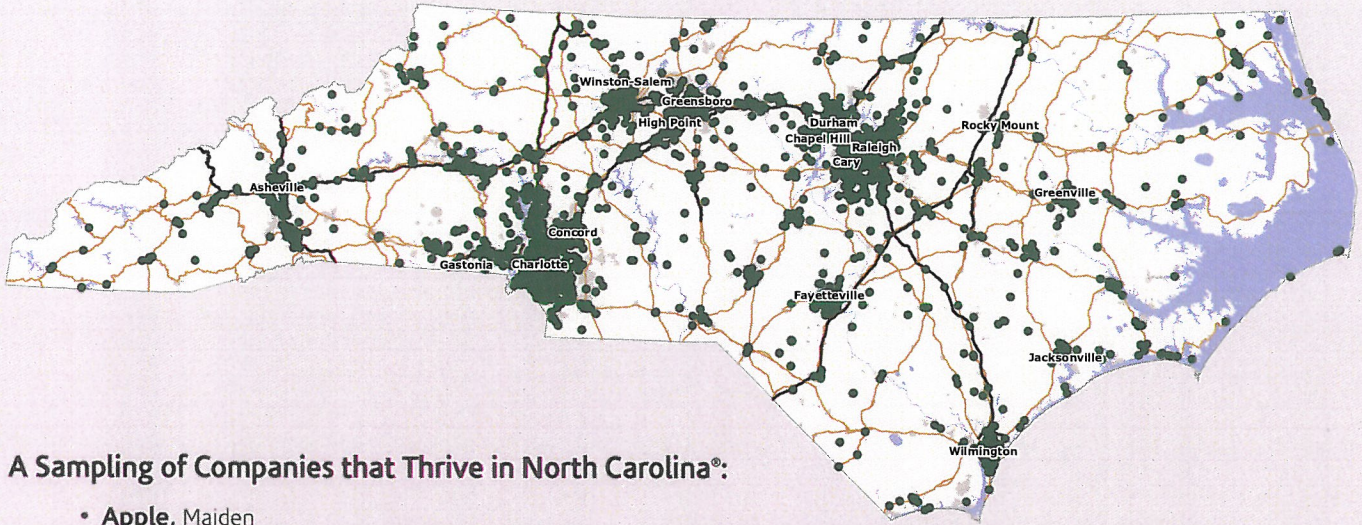
A Sampling of Companies that Thrive in North Carolina®:

- **Apple,** Maiden
- **AVL Technologies,** Asheville
- **Celestica,** Durham
- **Cisco,** Research Triangle Park
- **CommScope,** Hickory, Claremont, Newton and Statesville
- **Corning Incorporated,** Concord, Durham, Hickory, Midland, Wilmington and Winston-Salem
- **Cree,** Research Triangle Park, Morrisville, Durham
- **Credit Suisse,** Research Triangle Park
- **Dacentec,** Lenior
- **Disney Entertainment,** Kings Mountain
- **Facebook,** Forest City
- **Fidelity Investments,** Research Triangle Park
- **Flextronics,** Asheville, Charlotte, Creedmoor and Durham
- **Google,** Lenoir
- **HCL,** Cary
- **IBM,** Research Triangle Park
- **Infocrossing, a Wipro Company,** Kings Mountain
- **Lenovo,** Morrisville
- **Microsoft,** Charlotte
- **NetApp,** Research Triangle Park
- **Red Hat,** Centennial Campus at NC State University in Raleigh
- **RFMD,** Greensboro and Charlotte
- **SAS,** Cary
- **Tyco International,** Greensboro, Winston-Salem and Raleigh

Get Location Data

Use our Economic Development Intelligence System (EDIS) to search property details and map out locations in addition to getting drive-time and distance reports related to demographic information such as workforce, population and businesses.

ThriveNC.com/LocationTools

North Carolina Department of Commerce | 4310 Mail Service Center, Raleigh, N.C. 27699-4310 U.S.A. | 1.919.733.4977 | ThriveNC.com

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IT Academy – U.S. State Agreements

North Carolina
Every high school across the state

628

Hawaii
Libraries statewide – first in the world

52

Arkansas
Every high school and workforce agencies

343

Georgia
Every high school across the state

465

Utah
High schools and Higher Education statewide

148

Washington
Every high school -- statewide ITA and certifications

703

Virginia
Every high school across the Commonwealth
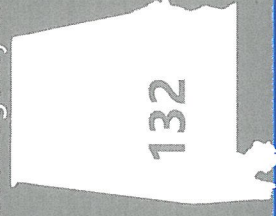
250

Louisiana
High schools statewide

256

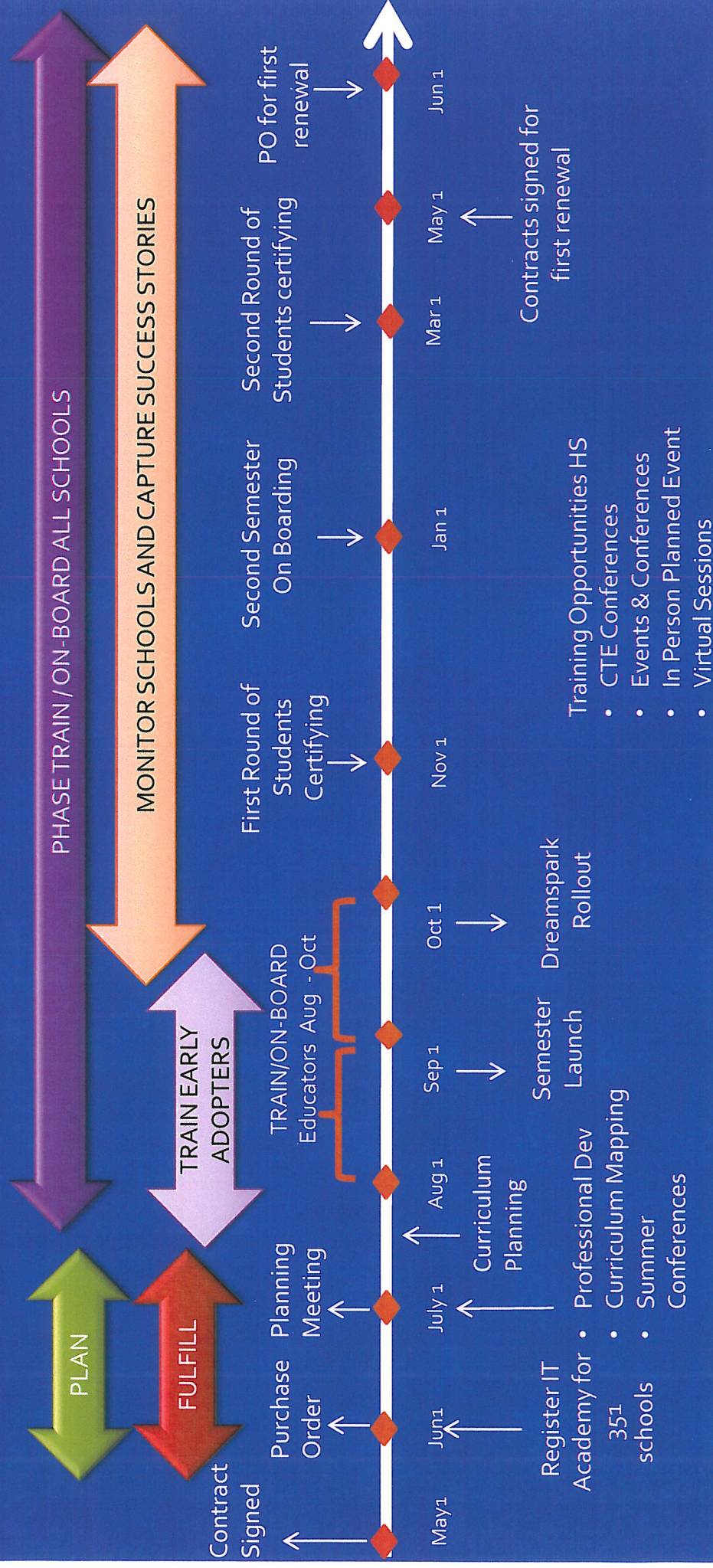**Alabama**
High schools in every local education agency in state

132

Florida
High schools *and middle schools* statewide

214

State of Iowa IT Academy DRAFT Timeline

PLAN

FULFILL

PHASE TRAIN / ON-BOARD ALL SCHOOLS

MONITOR SCHOOLS AND CAPTURE SUCCESS STORIES

TRAIN EARLY ADOPTERS

Timeline markers:

- May 1 — Contract Signed
- Jun 1 — Purchase Order
  - Register IT Academy for 351 schools
- July 1 — Planning Meeting
- Aug 1 — Curriculum Planning
  - Professional Dev
  - Curriculum Mapping
  - Summer Conferences
- Sep 1 — Semester Launch
  - TRAIN/ON-BOARD Educators Aug - Oct
- Oct 1 — Dreamspark Rollout
- Nov 1 — First Round of Students Certifying
- Jan 1 — Second Semester On Boarding
- Mar 1 — Second Round of Students certifying
- May 1 — Contracts signed for first renewal
- Jun 1 — PO for first renewal

Training Opportunities HS
- CTE Conferences
- Events & Conferences
- In Person Planned Event
- Virtual Sessions

1. Sign contract, purchase order, register schools
2. Planning Meeting
3. Teacher Early Adopter Identification & Training
4. Professional Development
5. Educator Trainings
6. Educators & Students Certifying

STATE OF IOWA

TECHNOLOGY AND STEM JOBS RANKING INFORMATION[1]

TOP 25 BEST JOBS in AMERICA (based on growth, pay and quality of life) 1. **Biomedical Engineer** 3. **Software Architect** 4. **Clinical Research Associate** 5. **Database Administrator** 7. **Market Research Analyst** 9. **Software Developer**	**TOP PAYING U.S. JOBS** 2. Petroleum **Engineer: $265,000** 4. Petroleum **Geologist** (scientist): **$247,000** 6. **Actuary: $208,000** 7. **Software Architect: $162,000** 12. **IT Security Consultant: $156,000**
TOP NEW JOBS in AMERICA (including 10-year job growth) 1. **Video Game Designer: 32.4%** 3. **IT Data Scientist: 18.7%** 4. Wind Turbine Mechanical **Engineer: 8.8%**	**TOP FASTEST-GROWING U.S. JOBS** (Including 10-year job growth) 2. Medical Devices Clinical **Engineer:** **61.7%** 8. Cost **Engineer: 36.4%** 9. Clinical **Research** Associate: **36.4%**
TOP 3 STEM jobs in IOWA[2] (percentage of STEM jobs forecasted through 2018) 1. **Computer Occupations: 52%** 2. **Engineers & Engineering Technicians: 24%** 3. **Life & Physical Science Occupations: 15%**	**MICROSOFT JOBS IN IOWA[3]** Number of **jobs requiring Microsoft skills:** **1,761** Number of **jobs requiring Microsoft skills** **paying $50,000-$250,000** per year: **700** Number of **jobs requiring Microsoft Office** **related skills: 942**

[1] SOURCE: http://money.cnn.com/pf/best-jobs/, January 2013
[2] SOURCE: http://cew.georgetown.edu/STEM/, January 2013
[3] SOURCE: http://www.indeed.com/, January 2013

■■ Microsoft

Memorandum

From: Microsoft Corporation
To: Governor Terry Branstad
Date: January 20, 2013
Subject: How Microsoft IT Academy can help increase focus on science, technology, engineering and math and support *higher achievement* and *better career opportunities* for Iowa students.

Mission and Goals

The Iowa Governor's STEM Advisory Council has identified targeted areas supporting the goals listed in the Executive Order 74. These priorities address the most pressing challenges facing STEM education in Iowa and include: *Student Interest and Achievement*; *Technology Enhanced Instruction for Global Learning*; *STEM Teacher Recruitment and Preparation*; *STEM Learner Readiness for Post-Secondary Education and Career*; *Stem Education Policy*; *Public Awareness of the Importance of STEM Education for the Economy and Society*; *Public/Private Partnerships and Mapping STEM Education to Economic Development*; and *STEM for All – the Highly-Abled, Under-Represented, and Nontraditional*.[1] **Microsoft IT Academy can help the Iowa Governor's STEM Advisory Council address these priorities, and support the State in the expressed goal of building the best schools in the nation.[2]**

National STEM, Skills Development and Talent Outlook

- In today's economy, **1 out of 2 jobs requires information technology (IT) skills**. In less than 10 years, this number will increase to **3 out of every 4 jobs requiring IT skills.** *(IDC, 2011)*
- The **unemployment rate of workers in computer-related occupations today is 3.4%**, compared to the **national unemployment rate for all occupations which is approximately 8.1%** *(U.S. Bureau of Labor Statistics)*.
- According to a report by Georgetown University, the national projection is for **2.4 million job openings in science, technology, engineering and math (STEM)** through 2018. In most states, **computer occupations are the largest of the STEM occupations** *(Georgetown University)*.
- A recent study predicts that between 2010 and 2020, **the American economy will annually produce more than 120,000 additional computing jobs** that will require at least a bachelor's degree. But the country's higher education system is **currently producing only 40,000 bachelor's degrees in computer science** nationally. *(Integrated Postsecondary Education Data System from the U.S. Department of Education's National Center for Education Statistics (NCES). Available at https://webcaspar.nsf.gov.)*

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[1] Source: http://www.iowastem.gov/targeted_priorities, January 20, 2013
[2] Source: https://governor.iowa.gov/goals/1st-schools-in-the-nation/, January 20, 2013

Iowa STEM, Skills Development and Talent Outlook

The following predictions are from the Georgetown University Report entitled, "Help Wanted: Projections of Jobs and Education Requirements Through 2018".[3]

- Between 2008 and 2018, **new jobs in Iowa requiring postsecondary education and training will grow by 101,000.**
- Between 2008 and 2018, **Iowa will create over 527,100 job vacancies** both from new jobs and from job openings due to retirement. **319,000 of these job vacancies will be for those with postsecondary credentials.**
- **62% of all jobs in Iowa (1.1 million jobs) will require some postsecondary training** beyond high school in 2018.
- Iowa ranks 24th (nationally) in postsecondary education intensity for 2018.

The following predictions are from the Georgetown University report entitled, "STEM State Level Analysis".[4]

- **Iowa will demand a total of 67,330 STEM jobs by 2018**, up from 57,830 in 2008.
- **91% of those jobs will require postsecondary education and training** by 2018.
- STEM jobs will be 4 percent of all jobs in Iowa in 2018. This represents a **16 percent increase in STEM jobs.**
- **52 percent of STEM jobs in Iowa will be in computer occupations** by 2018.

Occupational Distribution of STEM Jobs through 2018 in Iowa

	Computer Occupations*	Engineers & Engineering Technicians	Life & Physical Science Occupations	Architects, Surveyors & Technicians	Mathematical Science Occupations	Total**
Number of Jobs	34,930	16,110	10,130	4,320	1,840	67,330
% of all STEM jobs	52%	24%	15%	6%	3%	100%

*Computer Technicians, Programmers and Scientists

** Totals may differ slightly due to rounding

The Microsoft IT Academy and Certification Story for Iowa

IT Academy includes the following industry-recognized and globally-relevant resources to inspire today's students to prepare for the jobs of today – and tomorrow. Prepared students can help Iowa meet the demands of the 1,700 available jobs today[5] along with the forecasted (between 2008-2018) 527,100 job vacancies tomorrow (for those qualified individuals with postsecondary credentials, including STEM talent).

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[3] Source: http://cew.georgetown.edu/publications/reports/
[4] Source: http://cew.georgetown.edu/stem/
[5] Source: www.indeed.com

January 20, 2013

- Certification: According to the 2010 Microsoft Certified Professional (MCP) Program Satisfaction Study, **91 percent of hiring managers consider employee certification as a criterion for hiring.** The certification resources in IT Academy help prepare all students to meet the needs of hiring managers locally, nationally and globally. Students, teachers, administrators and staff members can use IT Academy training to become certified in a wide variety of IT areas, including Microsoft Office as well as advanced technical topics including programming, network administration, web development, database development, and the increasingly relevant cloud technical certifications[6].

- Curriculum: The Microsoft IT Academy Program offers **a comprehensive technology curriculum to help students learn the IT skills they'll need to become competitive** locally, nationally or globally - including a robust digital curriculum platform to support 'equality of access' amongst all Iowa students (and schools). This includes a comprehensive program that includes access to software licenses, Web-based E-Learning and official Microsoft course materials. Topics range from computer basics to high-level programming, along with information and communications technology management. Through the training, students get hands-on experience with the latest Microsoft software and hundreds of E-Learning courses.

- STEM Software and Technical Resources: Iowa member schools will have access to Dreamspark Standard, which will provide students and teachers with access to Microsoft's key developer tools and platforms for learning and research purposes. Additionally, STEM (Science, Technology, Engineering, and Mathematics) departments will receive access to customized Dreamspark benefits. **Through Dreamspark, all Iowa students will have access to professional-level developer and designer tools** so that students can chase their dreams and create the next big breakthrough in technology - or just get a head start on their career.

Statewide Microsoft IT Academy Promotes Certification

One 'best practice' is the State of North Carolina which in just three year of partnering with Microsoft to make IT Academy available statewide has experienced unprecedented growth in student certifications.

	Pre-IT Academy (Aug 2009-June 2010)	1st Year of IT Academy (August 2010-June 2011)	2nd Year of IT Academy (August 2011-June 2012)
Number of total Microsoft Office Specialist (MOS) Certifications*	21	8,794	43,630
Number of student MOS certifications	16	8,065	42,563
Number of teacher MOS certifications	5	729	1,148

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[6] According to a recently released White Paper by IDC, cloud-related skills represent virtually all of the growth opportunities in the IT worldwide. The complete IDC white paper is available for download here: http://www.microsoft.com/en-us/news/presskits/learning/.

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Statewide Certifications Impacts Student Performance

Another 'best practice' comes out of Florida, and the Florida Career and Professional Education Act (CAPE) Program. Students in CAPE programs attaining certification experience better performance.

Key Performance Indicator	Non-CAPE Academy Students	CAPE Academy Students (without Certifications)	CAPE Academy Students (with Certifications)
Average GPA	2.53	2.6	3.03
Dropout Rate	2.4%	1.4%	0.1%
Graduating 12th Graders	66.5%	76.7%	94%

Iowa Statewide IT Academy Investment Summary

For a nominal additional investment of approximately $1.1 million (per biennium) to the Iowa education budget Iowa's estimated 350 public high schools (and the Iowa Department of Education) will receive access to the tools and resource in IT Academy for the benefit of all students, teachers, administrators and staff members.

Microsoft IT Academy Program	Annual Membership Cost—Standard IT Academy Program	Annual Membership Cost—Customized Iowa Solution	Annual Cost* for Iowa (351**) Solution	Total 2013-2015 Biennium Investment
Estimated Retail Price	$1,750 per high school	$1,584 per high school	$555,984 per year	$1,11,968 per biennium

* This pricing excludes any applicable taxes. The final price is determined between the State of Iowa and the Microsoft LAR/Reseller.

**Includes 350 high schools and a single membership for the Iowa Department of Education. Number of high schools based on NCES data and should be verified by the State.

Conclusion

Microsoft IT Academy will deliver approximately $52,229 worth of Microsoft content (including certification, curriculum, STEM software and technical content) to Iowa high schools, based on Microsoft academic pricing. For an annual investment of approximately $555,984 (per year) the State of Iowa will receive approximately $18.3 million worth of Microsoft content for Iowa's estimated 350 high schools (and the Iowa Department of Education). The resources in IT Academy can support the Iowa Governor's STEM Advisory Council in addressing some of the most pressing challenges facing STEM education statewide, while at the same time helping Iowa achieve the goal of building the best schools in the nation. The Microsoft team looks forward to further exploring how IT Academy can become a meaninful part of the STEM and 21st century skills readiness solution for the students and citizens of Iowa.

For additional information, visit the Microsoft IT Academy website at:

http://www.microsoft.com/en-us/itacademy/default.aspx,