

**CAPSONE:
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- Life changing experience for college and K-12 students.
- Innovative career pipeline for industry.
- Power house for education /social services in the City of Newark.
- Key partner to community at all levels.

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What Capstone Has Become: A New Vision For 21st Century Education

When we started the CCS capstone program 9 years ago, most people thought of it only as a real world experience through projects. Many thought that a 3-credit hour course must be limited by traditional course constraints, budget, capacity, politics, students' capabilities and college resources. But we saw a different picture. When people fail to see the power of "collective passion", faith in students potentials and the contagious nature of students-centered education, they see no thing but constraints. In the capstone program, we saw no thing but endless possibilities for students, university and community.

As a network of networks, the multidisciplinary capstone today is changing

how classrooms operate and redefining how students learn, running a free real world open university year-



NJIT provost listening to two HS students in capstone-sponsored Real World Connections presenting their real world project .

round, transforming the way business work with education, impacting K-12 education, health care and social services in the City of Newark and NJ and partnering with the world to empower our students.

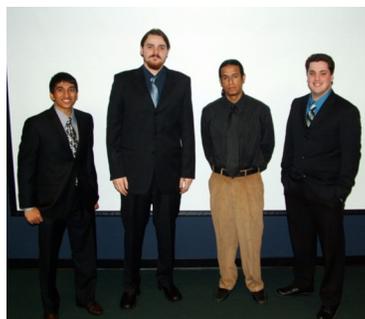
Capstone class works as a very social "learning organization" co-designed by students and industry. These classes adapt to students' demands, learn from weekly feedback and respond rapidly and dynamically to real world clients' expectations so education becomes more relevant, exciting and rewarding. In addition to industry-sponsored projects, the capstone offers other options such as strategic management, entrepreneurship, research and development and teaching projects.

The capstone course provides hands-on interactive training on hot technical topics demanded by IT employers in addition to workshops in leadership, project management, presentation, communication and social skills carried out by industry subject matter experts, top executives, faculty,

Capstone experiences are now open to freshmen and sophomore NJIT students from all colleges

Get real world training, work on real world projects, be part of our big team instantly. Get certified, get endorsed by industry, get rewarded, get paid. The sky is not even the limit.

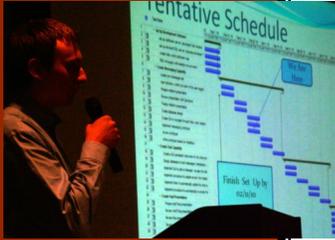
Capstone Fast CISCO Certification and Training



Capstone students completed the CCNA-01 requirements, passed the exam and became CISCO certified as part of their capstone project experience.

Upgrading CISCO labs across the state, offering FREE CISCO training for NJIT students, getting students CISCO certified in less than six weeks, offering real world opportunities in network administration, security and teaching. Our CISCO team is helping college & high school students getting jobs in a tough economy.

Capstone Students' Accomplishments in Fall 2011



Senior Capstone Student presenting his project development plan.

**"Capstone
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- Here is a small taste of what our Capstone students have been working on this semester:
- We partnered with the NJIT Center for Information Age Technology. This group has worked with CIAT to develop two exhaustive templates for use by Government Agencies. Recent litigation will make it mandatory for all Government Agencies to have a web-presence, these templates will allow even non-technical groups to host and maintain their own web site.
- Working with WattLots, a solar energy corporation, our students were to help design their new green arbor technology. Our students were tasked with providing a complete network diagram and all networking design plans for the Arbor. These plans had to both support the desired couponing system as well as ensure tight network security.
- Students teamed up with Audible.com, an Amazon music branch to develop a mobile application. This project has two parts, a newsfeed publisher and an Automated Android Framework. The Newsfeed tool will be used to better administer and update Audible's news and events. The Android Framework will be used to provide an automated build-verification test for all Android devices.
- Working with the Barat Foundation, students continued work from last semester on the "healthy green" food truck. The truck will use both technology and great tasting food to encourage and educate a healthier lifestyle. It will also provide a mobile campaign center for the Let's Move Anti-Obesity campaign.
- Partnering with Newark Technology High School and CISCO, the project entails attending and assisting in learning about Cisco networks in a Cisco Lab at Technology High School. Using simulation software to create a cloud network for a company to be able to connect and share data with other departments. Upon completion of the simulation the group will proceed in building of the actual physical network will be made.
- A second Cisco group (student sponsored) designed and implemented a Content Distribution Platform for independent artists. The CDP will provide an easy, centralized way for artists to share their work by supply a portal to advertise, bandwidth to transfer files to others, and a means to become known. This project was completed in a Cisco environment becoming a Cisco based enterprise network.
- Newark Public schools once again teamed up with NJIT to improve the effectiveness of standardized site evaluation tools and reaction time in the Office of Early Childhood in Newark Public Schools. Dubbed Project Serenity, this extensive task entailed creating an exhaustive web portal for the entering of evaluation data for state tests like ECERS. This project has been long and tiring but will impact the lives of children in Newark for years to come.

Changing the Way Businesses Work With Students

The capstone did not only partner with hundreds of businesses and organizations but changed the way business view education and work with students. This Fall semester, most of our industry clients came to class

every two weeks to advise our students, mentor them and provide them with frequent feedback in regard of projects deliverables. These same industry clients will be endorsing students' live ac-

complishments again in person in our Dec. 7th, 2011 public showcase as live recommenders in support of instant career opportunities.

Capstone Fast Career Track



In-class social networking dinner with top industry executives.

- As part of capstone fast career track, capstone credibility with industry clients and government organizations allows us to get students full time jobs even before they finish the

- As always, this Fall our capstone alumni board continued to teach, mentor, advise and provide endless support to capstone students and program. Capstone advisory board continued to be a power house for the program.

- Capstone continued its tradition in rewarding well-performing students throughout the semester with certificates, gift cards, cash prizes, in-advance recommendation letters and much more.

- Capstone continued its public showcases and large presentations events as the fastest and most effective way to introduce our students to career opportunities, resources, key connections and community.

course. This year, IMS health, Saint Barnabas Health Care system, Audible.com: an Amazon.com company are just few examples.

- Students who get these jobs come back as our new sponsors to provide peer mentorship to new teams and some join our capstone alumni and industry advisory board.

Featuring 21 Century Classes

Beyond projects, capstone changed how classrooms operate including the seating style. This Fall:

- Top industry executives came to classroom to have social networking dinners with our students, train them and offer career opportunities right after class.

- IMS Health, Saint Barnabas Health Care System, and CISCO, participated in a networking and interview session, the rewards are career opportunities .

- Also, this Fall, there have been numerous opportunities for students to help teach in

multidisciplinary areas. From computer hardware to html, students got to utilize



"We are the prisoners of our self-created obstacles that don't allow us to see how many possibilities are out there."

IMS Health real world experience and career opportunities offered on site and at NJIT

Capstone changing how classrooms operate and how students learn

In Fall 2011, capstone courses continued to feature critical ingredients of the 21st century classes including:

- **Sense of ownership:** *Students select or propose their favorite projects, co-design the course, run class as a company, elect their CEO's, vote for activities and major decisions and get rewarded for constructive criticism.*
- **Social intelligence:** *Students help each other within the team & between teams, teach the class, advise & mentor peers, sit in a u-shape style and enjoy social activities inside and outside the classroom.*
- Students bring their education into real world environments as partners and not as employees.
- Students join carefully-designed real



Faculty, alumni and industry experts work as judges, advisors and mentors in team's meetings and presentations sessions

Capstone Real World Open University

This Fall alone, we ran several multi-session workshops as part of the capstone Real world open university:

- *Web development workshops including advanced PHP and Android programming.*
- *CISCO networking training workshop culminating in the students earning their CCNA1 certification.*
- *Two Project Management and Leadership multi session workshops*
- *Presentations skills workshop.*

Real World Connections Program (RWC)

Capstone also sponsors our sister FREE MS/HS Real World Connections community program (RWC) where K-12 students form joint teams with capstone students work on multidisciplinary real world projects year-round including annual summer internship programs. RWC expanded capstone vision, mission, projects, partnerships and support and created endless possibilities for K-12 and NJIT students alike.

Newest RWC multidisciplinary projects include the Robotics project, the Music band, the Fashion Show and iPhone Game Development.

This program now includes a

strategic partnership with Newark public schools with emphasis on gifted and talented schools and the YES center. The college-level of RWC program also offers exceptional learning experiences and opportunities to non-capstone NJIT students and supports NJIT wide pro-



Two high school students inside the operation room at Newark Beth Hospital as part of RWC

We're on the Web!

www.capstoneprogram.com



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