Nordics & Baltics Networking Academy Conference

New NetAcad Courses: Opening doors

Stockholm 2015

Jutta Jerlich
May 2015
Continuing Innovation in Teaching and Learning

Cisco Developed

- Instructor-led, core NetAcad ICT courses offered in partnership with schools and organizations around the world
- Self-enroll courses are self-paced, self-directed courses designed to complement our core offerings

Community Developed

- Learning materials developed by NetAcad instructors partnering with Cisco
- Shared with the entire global NetAcad community to provide a way for instructors to expose students to some essential and emerging technology topics
- All instructors can open/teach classes using this supplemental content

Partner Developed

- Relevant content developed by a third party that aligns with our desire to increase employability
- Enables faster time to market
- Expands learning opportunities for our students with additional technology and soft skills courses
Coming technologies require new & evolving skills

**Technical Skills**
- Cloud
- Cyber Security
- Big Data
- Software-defined Networking
- Internet of Things
- Business transformation

**21st Century Skills**
- Critical thinking
- Collaboration
- Communication
- Creativity
- Problem-solving
- ITC Proficiency

Networked **connection** of people, process, data, things
Linux Essentials

DESCRIPTION
- Curriculum developed by Network Development Group (NDG)
- Instructor-led online curriculum
- 16 content modules
- Aligns with Linux Professional Institute (LPI) Linux Essentials Certificate

FEATURES
- Include practice lab activities and assessments to test understanding
- Virtual machine throughout the course
- Estimated time to complete: 70 hours
- 20% discount on LE certificate

TARGET AUDIENCE
- Targeted to entry-level Linux professionals
- No previous knowledge required

AVAILABILITY
- Language: English
- Instructor-led
Introduction to Cybersecurity

DESCRIPTION
- Introduces the importance of cybersecurity and current trends in industry
- Content organized in 8 modules that include presentations and panel discussions with industry experts

FEATURES
- Activities, videos and additional resources for students to explore
- Assessments include a pre-test, 8 quizzes, 1 final exam
- Students can self-enroll
- Estimated time to complete: 20 hours

TARGET AUDIENCE
- Introductory course for students interested in and introduction to cybersecurity and learning about the trends of cybersecurity in the market today
- No previous knowledge required

AVAILABILITY
- Currently available in English
- Self-enroll and instructor-led
Introduction to the Internet of Everything

DESCRIPTION
- Introduces the concepts and challenges of the transformational IoE economy
- Broad focus, not aligned to an industry vertical or certification

FEATURES
- Five modules of interactive instructional content featuring IoE experts
- Activities, videos, and simulation experiences
- Assessments include a pre-test, module quizzes, and final exam
- Class duration: 6 weeks
- Estimated time to complete: 15-20 hours
- No prerequisites

TARGET AUDIENCE
- Self-directed learners who want to understand what IoE means for them
- Self-directed learners who want to leverage their technical knowledge into IOE-related functions in the workplace

AVAILABILITY
- Self-enroll and instructor-led
Podcast Series: Internet of Everything

Series Overview
This podcast series provides an introduction to the future of the Internet, where a network foundation connects billions of things and trillions of gigabytes of data, enhancing our decision making and daily interactions. It can be used to prepare for the Introduction to the Internet of Everything course.

Learning Components
- 5 modules featuring a panel of IoE experts
- Links to related resources
- Downloadable mp3 files

Career Prep
Anyone seeking to develop a broad understanding of trends, technologies, and career opportunities in the Internet of Everything.

Prerequisites: None
Languages: English
Delivery Method: mp3 files
Estimated Time to Complete: 2.5 hours
Recommended Next Course: Introduction to the Internet of Everything
Entrepreneurship

DESCRIPTION
• Helps students develop an entrepreneurial mindset
• Teaches skills such as business planning, negotiation, financial literacy, and problem solving
• Content organized into 7 modules that include practice activities and quizzes to test understanding

FEATURES
• Students can self-enroll, or instructors can teach this course in their classrooms
• Estimated time to complete: 10-15 hours

TARGET AUDIENCE
• For students who want an introduction to an entrepreneurial mindset and business skills

AVAILABILITY
• Currently available in English, Arabic, Chinese and Spanish
• Self-enroll and instructor led
Be Your Own Boss Technopreneur Series

**DESCRIPTION**
- Provides tips and advice to launch a successful tech business
- Technopreneurs share lessons learned and success stories
- Complements the NetAcad Entrepreneurship course

**FEATURES**
- Eight 1-hr video recordings of instructional content (15 mins) and experience-sharing (45 mins) for each module
- 1 quiz and 1 survey per module
- Estimated time to complete: 1 hour/module, 8 hours for series

**TARGET AUDIENCE**
- Students interested in owning their own tech businesses
- Entrepreneurship course students seeking insights and advice
- No previous knowledge required

**AVAILABILITY**
- Language: English
- Self-enroll course in Cisco NetSpace
- 4 modules now available
Coming technologies require new and evolving skills

**Technical Skills**
- Cloud
- Cyber Security
- Big Data
- Software-defined Networking
- Internet of Things
- Business transformation

**21st Century Skills**
- Critical thinking
- Collaboration
- Communication
- Creativity
- Problem-solving
- ITC Proficiency

Networked *connection* of people, process, data, things
Knowledge disappears as soon as you have acquired it.

Have you noticed this as well?

Wanting to learn something may seem like a long way to go and a huge task.

After you are done, finished the exam, it seems to have become part of you and is not so visible any more.

Only when you start applying the knowledge in practice, using the knowledge in daily life and at work in a hands-on project …

Behavioral economist Dan Ariely calls it The curse of knowledge

When we know something and know it well and have practiced it, it is hard to recognize this knowledge inside yourself. It is also hard to communicate it to other to make them understand..

We sometimes forget that it is only practice and experience that made us to who we are today.
Create an exciting menu

Ingredients:
• Technical knowledge
• Business knowledge
• Project Management
• Languages
• Soft skills
• Team settings

Carefully mix technical knowledge and further skills based on the professional requirement of the industry

Set the time frame
Let the experience begin

Celebrate results
Use mentoring and coaching
New formats of teaching & learning

• Project based learning
• Problem based learning
• Idea Workshops – from ideas to prototypes
• Competitions
• Real life projects
• Technology in Action
• ...

>>> some ideas and examples
Project based Courses

Team Teaching

Dropout rates of 45% lead to the redesign of several study programs which are now offered as a project based curriculum with 5 teachers and subjects taught in combination.
Most countries lack sufficient IT security professionals to protect their IT infrastructure. To help mitigate this problem, many of them set up national cyber security competitions for finding young cyber talents and for encouraging them to pursue a career in cyber security.

The European Cyber Security Challenge leverages these competitions with a pan European layer

https://netacadeurope.wordpress.com/2015/05/20/european-cybersecurity-challenge/
Technology Orientation Courses

IT Essentials 5.0

- Aligned to CompTIA A+ industry certification
- Translated by Cisco and the community to many languages
- Recommended duration: 70 hours

combined with

- Entrepreneurship
- IoE
- Cybersecurity
- Linux Essentials

Used at Girls Days, introduction to next incoming students
Curriculum used in new ways

*IT Essentials Course for teachers at Thorildsplans Gymnasium*

Parts of the IT Essentials Curriculum can be taught in different subjects: English Language, Physics, Mathematics, Electronics.
Hackathons

48 hours for an interdisciplinary group of designers, engineers and programmers accepting the challenge to build an IoE based solution. Along with expert check-ins focusing on hardware, software, programming, business modelling and collaboration the teams are coached from the ideation phase to the prototyping and idea pitching.

ToThem would like to help guide you when you like to learn something new

Edumotion aims to understand student’s feelings, moods and emotions to help solve problems

Black Cat Analytics improves presentations thanks to real (and soon, big) data.

https://netacadeurope.wordpress.com/2015/02/02/hackathon-passion Milan
Pitching ideas

Creathon: 48 hours of intense work from an idea to a prototype open to all students from all background with all types of competences.

Event stimulating creativity and innovation, using new tools and methods, fostering and fueling creativity in everybody (organizers, helpers, partners and jury included) involved.

Students work in teams and come up with ideas about the innovative use of technology. The event last 1.5 days. The end of the competition was a 5 minute pitch explaining their projects aiming to convince jury members that their idea is the best.

https://netacadeurope.wordpress.com/2015/03/24/idea-pitching/
Continued Education for teachers

**Build your smart device**

... without learning a programming language.

Teaching in a different way requires one to experience how to learn in a different way:

The workshop “Be Creative with IoE: building a smart thing”

Learning in teams – here are the team roles:
- **Manager** – ensures the projects are implemented and that everybody is working
- **Designer** – design and construct the box
- **Programmer** – programs the software inside the boards
- **Engineer** – connect the Raspberry Pi and the Arduino, peripherals of I/O, wires

[https://netacadeurope.wordpress.com/?s=Build+your+smart+device](https://netacadeurope.wordpress.com/?s=Build+your+smart+device)
Involving stakeholders from along the value chain

**Workshop** in groups discussing IoE ideas – the most often mentioned ideas circled around solutions for the traffic in Stockholm.

It was inspiring to see how young Networking Academy students took this opportunity to **present their ideas in front of the auditorium**. It was a great experience for all to be part of this connection formed between all participants and the Cisco Partners involved.

Thanks to
... >70 Students from **KTH, Chalmers, Iftac, Halmstadt University, Mälardalen University** and others
... Cisco Sweden team and partners **Atea AB, TDC Sveriga AB, Cygate AB, Network services** and **Commsec**

[https://netacad-europe-wordpress.com/2015/02/05/talent-connection](https://netacad-europe-wordpress.com/2015/02/05/talent-connection)
Allow the learning outcome .... to be personal and different for everyone

Working in teams, communication in a global world, dealing with problems, applying your knowledge in a complex environment needs strategy, the power of observation, the passion for what you do and the feeling for people at the same time.

Learning takes a different shape for each person.

How cool it is to find a special twist to IT Networking from Nathan Boone

How a team can make you have the courage from Maximilian Lehrbaum

How a moving finish line still creates only winners from Felix Hartung

How it feels to work in 200% enthusiastic team from Kevin Van Ryckegem

How mutual respect kickstarts team work from Ivica Vugrinec

Wings for Life WorldRun @http://netacad-europe.wordpress.com
Competitions - Challenges

International Competitions from Cisco NetRiders WorldSkills National Skills

Run a semester long competition
THANK YOU

Questions ?
Idea ?
Projects / Initiatives to share ?
Thank you