

# Adrianna Holden-Gouveia

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## EDUCATION EXPERIENCE

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### Northern Essex Community College

Haverhill, MA

Professor:

2020 –Current

Associate Professor: 2013 –2020

- Curriculum and course development including creation of the Networking and Security Associate degree. Create and maintain Open Education Resource templates for courses(detailed below in Curriculum Development). Teach advanced courses in computer science and IT, including networking, security and Linux Administration. Curriculum development including department wide course templates and college wide initiatives for core competencies and assessment. Focused on career-driven learning outcomes through the internship program. Mentored students for awards such as 29 Who Shine. Participate in committees such as Integrated Student Experience and Student Success. Create and manage the lending library in the STEM center, focused on STEM and STEM adjacent books available to students to borrow for free.

STEM Faculty Lead: 2018 –Current

- Represent STEM faculty at committee meetings, be the faculty voice for STEM at larger events such as at the Integrated Student Experience. Help to facilitate events for the STEM center such as STEM education week, Engineering week and others. Work closely with other faculty and the Dean of STEM to have a variety of events on campus, as well as maintain the STEM center and ensure all STEM students are able to utilize the resources available. Also help to facilitate student engagement virtually during the pandemic, and work on ways to serve students equitably even when not on campus

Adjunct Professor: 2006 –2013

- Taught several courses in Mathematics Department and Computer Science Department including Computer for Beginners, Computer Applications using Microsoft Office (Word, Excel, PowerPoint & Access), Introduction to Computer Science, Introduction to IT, Operating Systems, HTML, Contemporary Math, Mathematical Ideas

Faculty Tutor: 2006 –2013

- Tutoring Math and Computer Science at all levels, one on one and small group

SAU #63 and others

NH

Summer School Teacher and Math Tutor

2000 –2006

- Assisted with teaching, special education students in Math, One-on-One and small group instruction. General tutoring in mathematics from 6th grade through college level courses

## EDUCATION

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### Rivier University

Nashua, NH

MBA

Graduated–2008

- Coursework includes Marketing, International Business, Investment Management, Strategic Planning and Economic Analysis

### Clark University

Worcester, MA

Dual Major, Mathematics and Computer Science

Graduated–2006

- Probability and Statistics graduate level course work. Numerical analysis for topics such as using real world data to predict future results. Able to use MATLAB, Octave, Maple and others to find formulas to fit experimental data such as predator/prey relationships, contamination levels of substances and then use data visualization tools to share reports with others

# CURRICULUM DEVELOPMENT

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- **Introduction to to IT** CTN 110  
*This is a gateway course to overview core aspects of Information Technology including hardware, networking, applications and security. This is a breadth course to help students get the fundamentals of IT and how it relates to things they might be interested in pursuing, jobs that are out there, as well as getting the fundamental concepts understood so students are prepared for later classes.*
- **Data Management** CIS113  
*This is an introductory course in data literacy and databases. The course includes aspects of database design including entity relationship modeling, tables, and queries. Students will utilize database applications and Structured Query Language (SQL). Data science including data collection, modeling, and visualization will be discussed. Best practices for data security and privacy in regards to current regulations around the world will be emphasized in this course. These fundamental concepts are introduced and reinforced with practical labs that can be customized based on student interest.*
- **Information security** CIS115  
*This course is required for all technical majors. This is hands-on style labs focused on the fundamental principles for information security, what everyone needs to know about cyber security in this day and age. There are minimal pre-requisites for this course so that it can be accessible to everyone. Topics and labs include how to identify and remove spyware, viruses and all types of malware. The importance of general cybersecurity knowledge as it relates to everyday life including password management best practices, social engineering prevention and education, and how basic technology we take for granted works and is secured. Things like the Internet of Things (IoT) and how that is secured as it relates to cars, smart home devices and security cameras, but also how it relates to the laws being passed around the world such as General Data Protection Regulation (GDPR) and how that is affecting businesses small and large.*
- **Introduction to Linux** CIS117\*  
*This course is designed as an introduction to the basics of Linux for all technical majors. This course utilizes hands-on style labs to explore basic system navigation, file manipulation, text processing and shell scripting. I designed the course to use Bash primarily.*
- **Introduction to Operating Systems** CIS121  
*This course is not currently being offered. It was designed to be a part Linux part sub-systems course. There were hands-on style labs, as well as a deep dive into the pieces of the kernel, and how computers are put together from the software to how the software interacts with the hardware.*
- **Programming for IT** CIS153\*  
*I designed this course to be the programming course that IT and Networking Security majors will take, this course is currently done in Python. We look at not just the basic syntax of data types, control flows and GUI applications, but how problem solving skills can be used with programming and scripting to assist in your job. There is also some project management and Agile techniques incorporated into the hands-on style assignments to work on how to break up problems and plan out your projects into milestones and goals.*
- **Advanced Computer Security** CIS215  
*This course is a continuation of our Information Security course. This course is a deeper more advanced look at all topics in cyber security. We cover cryptography, access control mechanisms, IDS/IPS, vulnerability analysis, networking intrusion and security auditing. We focus on how information security is handled in a corporate environment.*
- **Advanced Data Management** CIS210  
*This course is a continuation of our introduction to data course. This course is a deeper more advanced look at all topics regarding data and databases. This course will focus on advanced techniques and concepts in database management. Emphasis will be on Structured Query Language (SQL) but will also include some NoSQL, and current industry best practices for utilizing data and databases. This course will be using hands-on exercises and real-world case studies for topics such as database optimization, database scalability, performance tuning, and concurrency control.*
- **Linux Administration** CIS245\*  
*I created as a capstone style course for the IT and Networking Security degrees. This course focuses on what system administrators need to know on the job, both in terms of tools, but also topics that aren't usually covered in academia*

such as documentation, the importance of keeping your accomplishments listed so you're prepared for remote work and quarterly or yearly reviews. We also cover how to integrate previous knowledge such as Python and Regular Expressions (Regex) into streamlining your work and seeing where they can go next based on individual interests, as well as strengthening troubleshooting skills. This course utilizes hands-on labs for topics such as software configuration and installation, while employing best practices from the ground up for all aspects of systems administration.

- **Internship/Co-op**

COP110

Created to follow current best practices for internships and cooperative education, focused on STEM students. This course is designed to prepare Students in the CIS programs, working with their internship site to prepare them for jobs in the future, with needed skills such as resume building, portfolios, interviews both technical and HR style, as well as professional dress, social media and other topics that are helpful in the work place.

## INITIATIVES

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## WORKSHOPS

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- **Raspberry Pi**

Workshop focused on the things you can make with a raspberry pi, mostly working with pre-built programs that the students could then edit. We made a Magic Mirror that now lives in the STEM center, and a SelfieBot that comes to graduation and other large events. The Magic mirror is a raspberry pi hooked up to a monitor that displays customizable information such as the weather, the school calendar and current news. The SelfieBot is a robot that can take a picture (a selfie), it will then save the picture, print it on thermal paper and tweet out the picture with customizable hashtags.

- **3D printer**

An introduction to 3D printing, basics of how to use CAD software, as well as slicing software to get the printer safely running. Also how to use Octoprint so we can collect data about who is doing the printing, and create time lapses of the prints.

- **Intro to Soldering**

Short workshop with soldering activity that can be easily added to any STEM week (STEM ed, Engineering week etc) with small badges that everyone who participates can make and bring home. This workshop goes over soldering safety, as well as the basics of how to use a soldering iron, what you'd use one for, and what to do after you've created your badge.

- **Hacking the Vote**

2020 Election - Created a video about the Right to Repair Ballot Question 1 in MA. Working others at the college to encourage students to vote in my class and across the college. Presentation dedicated to the security of voting machines. Made for the 2016 election, but getting updated for the 2020 election. Focused on the vulnerabilities in voting machines from the hardware up through the software.

- **Social Media**

How to use social media, personal branding, how not to use social media and which social media to use depending on your goals. Looking at the best times of day to post, how to make eye catching posts, and the issues with using social media poorly and how that can not only reflect poorly on you, but also how social media can affect your ability to get or keep jobs in the future. How to work on your personal brand in terms of Search Engine Optimization (SEO) and putting your best foot forward.

## AWARDS, HONORS AND GRANTS

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- **NISOD award**

The NISOD Excellence Awards were established in 1991 to provide NISOD-member colleges with an opportunity to recognize individuals doing extraordinary work on their campuses.

- **OER Grant**

\*This indicates it was a brand new course for the college, not a redesign of an older course

*Winner of several OER grants designed to encourage Open Educational Resources to be created and shared as widely as possible to instructors and students*

- **Employee Recognition Award**

*The Employee Recognition Award recognizes the many and varied contributions of the college's nearly 700 employees.*