#40yearsofamtek

amtek company, inc.

1979-2019

CELEBRATING 40 YEARS

CERTIFICATION WORKSHOPS

October 16-17, 2019

NEW RIVER COMMUNITY COLLEGE
CHRISTIANSBURG & DUBLIN

www.amtekcompany.com

WEDNESDAY, OCTOBER 16

8:00 am

- SOLIDWORKS Certification — Christiansburg / NRV Mall Site, Room 118
- PBL for Wide Format Printing–Cutting featuring Roland — Christiansburg / NRV Mall Site, Room 147
- NOCTI & SACA Robotics Certification featuring FANUC + Siemens CNC Certification featuring EMCO — Dublin Campus, Rooker Hall Rm 117B

12:00 pm

LUNCH (NRV Mall Site - Rm 123; Dublin Campus - Martin Hall Student Lounge, Rm 117)

1:00 pm

- *cont'd*
- *cont'd*
- American Welding Society (AWS) Certification featuring Miller — Dublin Campus, Rooker Hall Rm 112
- NIST, ISC & CompTIA Cybersecurity Certifications featuring Marcraft — Dublin Campus, Rooker Hall Rm 136

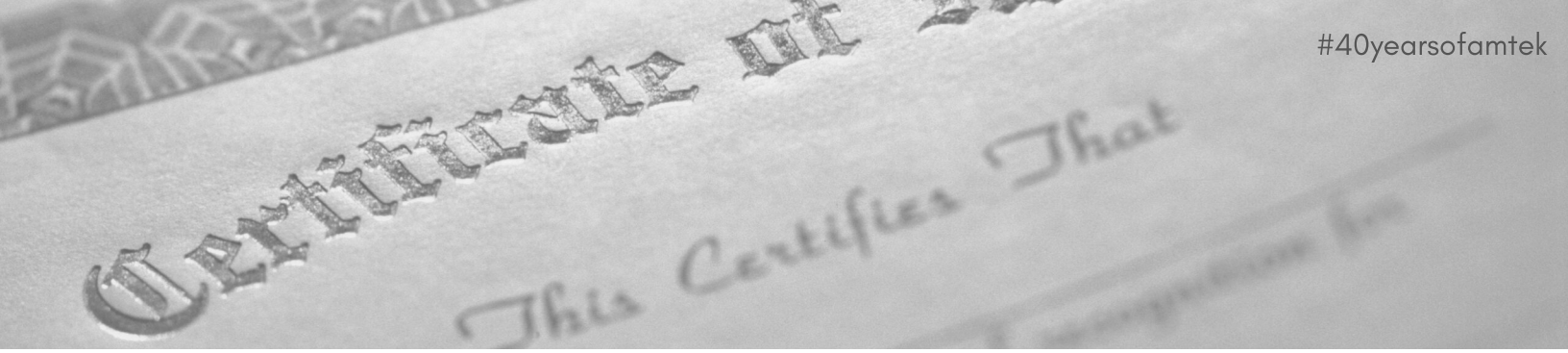
4:00 pm

5:30 pm

Amtek Company 40th Anniversary Celebration Dinner
(The Farmhouse | 285 Ridinger St, Christiansburg, VA 24073)

New River Community College, Christiansburg / NRV Mall Site
782 New River Rd NW Suite 400, Christiansburg, VA 24073

New River Community College, Dublin Campus
5251 College Dr, Dublin, VA 24084



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THURSDAY, OCTOBER 17

8:00 am

9:00 am

Makerbot 3D Printing Certification
Christiansburg / NRV Mall SIte
Room 147

ASE & NATEF Certification featuring LJ Create
Dublin Campus
Rooker Hall Rm 128

MSSC & SACA Mechatronics and Industry 4.0 Certification featuring Amatrol
Dublin Campus
Rooker Hall Rm 117B

Heavy Equipment Operation and NCCER Certification featuring SimLOG
Dublin Campus
Martin Hall
Student Lounge (Rm 117)

12:00 pm **LUNCH (NRV Mall Site - Rm 123; Dublin Campus - Martin Hall Student Lounge, Rm 117)**

1:00 pm

Stratasys Additive Manufacturing Certification
Christiansburg / NRV Mall Site
Room 147

(cont'd)

Lift Truck Operations and OSHA/National Safety Council Certification featuring SimLOG
Dublin Campus
Martin Hall
Student Lounge (Rm 117)

4:00 pm

New River Community College, Christiansburg / NRV Mall Site
782 New River Rd NW Suite 400, Christiansburg, VA 24073

New River Community College, Dublin Campus
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PROGRAM - WEDNESDAY, OCTOBER 16

Christiansburg / NRV Mall Site

*All NRV Mall Site lunches are served at 12:00pm in the Auditorium (Rm 123)

Hands-on Training with the New SOLIDWORKS xDesign and xShape for Education + SOLIDWORKS Certification

8:00am - 4:00pm | Rm 118

Receive exclusive access to the new SOLIDWORKS xDesign and xShape for Education applications - two new cloud-based CAD design applications with built-in social collaboration platforms for a truly connected experience (think task assignment, commenting, feedback, etc.) available through any browser on any type of device (including MACs) with no installation necessary.

SOLIDWORKS xDesign is a series of design and collaboration apps that are native to the 3DEXPERIENCE platform, allowing users to create 3D mechanical designs without the restriction of needing a CAD workstation. SOLIDWORKS xShape allows much faster and more flexible creation of freeform shapes than standard parametric surface modeling.

This workshop will also get you started on your way to becoming SOLIDWORKS Certified with an overview of the SOLIDWORKS Certification process, tips for becoming certified, and practice exercises to prepare you for the Certification Exam.

Project-Based Learning (PBL) for Wide Format Printing-Cutting *featuring Roland DGA*

8:00am - 4:00pm | Rm 147

Learn everything you need to teach digital fabrication in the classroom with Project Based Learning techniques. In this interactive workshop led by Roland DGA experts, attendees will complete a series of hands-on projects that cover the teaching principles of engineering, design, and art.

Not only will attendees become familiar with wide format printing systems, they will also walk away with two (2) projects that can be replicated in the classroom. The first project utilizes an SG Series Printer Cutter to create coaster packaging that can be used as a holder. The second project challenges attendees - in teams -- to create a package prototype for a custom printed T-shirt.

All attendees will receive hands-on experience with a variety of Project-Based Learning technologies and software, an official Roland DGA Digital Fabrication Workshop Certificate, and resources for digital fabrication tutorials.

Dublin Campus

*All Dublin Campus lunches are served at 12:00pm in the Martin Hall Student Lounge (Rm 117)

NOCTI & SACA Robotics Certification *featuring FANUC* + Siemens CNC Machining Certification *featuring EMCO*

8:00am - 12:00pm | Rooker Hall Rm 117B

Receive hands-on experience with FANUC Robots and learn how to certify your students so that they have the entry level core Robot Operator skills they need. This workshop will cover:

- Robot programming, material handling and its components, and software for students
- NOCTI Certification - the importance of certification, how schools can become NOCTI members, details on the certification exam, and more
- Collaborative robots in education and industry
- Overview of FANUC Certification Carts, including curriculum and software
- Learn about the Siemens Lifelong Educational Advantage Program (L.E.A.P.) and EMCO CNC machining certifications for students

American Welding Society (AWS) Certification *featuring Miller*

1:00pm - 4:00pm | Rooker Hall Rm 112

Learn more on how to incorporate welding training solutions including free resources to help support learning curriculum, Augmented Reality and Motion Tracking Technologies into today's classrooms and weld labs while hearing about innovative welding lab solutions that save space and match industry features. Incorporating classroom and lab training solutions to meet high demand welding skills ultimately helps prepare students for American Welding Society (AWS) certification. This workshop will cover:

- Tips for preparing students to complete AWS exams
- Hands-on training with the AugmentedArc® Augmented Reality Welding System, the industry's most realistic welding simulation solution for classroom training

NIST, ISC & CompTIA Cybersecurity Certifications *featuring Marcraft*

1:00pm - 4:00pm | Rooker Hall Rm 136

*attendees must bring their own laptops for this session

Given the current threat landscape, training programs at all levels – from K-12 to university – are now expected to cover the full gamut of cybersecurity principles, like Infrastructure Security, Network Security (Local and Enterprise), Industrial Cybersecurity Systems, Digital Forensics, and Ethical Hacking (Black Hat, White Hat and Gray Hat), among others.

Join us and learn to develop a comprehensive cybersecurity training program that maps to top industry certifications and standards, including National Institute of Standards and Technology (NIST), International Information System Security Certification Consortium $(ISC)^2$, and CompTIA A+ and Net+.

IIn this workshop, attendees will complete a series of hands-on cybersecurity exercises that can be replicated in their classrooms, including:

- Using a Packet Sniffer to monitor and manipulate WiFi communications
- Configure a Wireless Network Adapter for Promiscuous Mode operation
- Explore a Kali Linux OS distribution along with its embedded Hacking Tools
- Isolate a WPA2 Authentication Key
- Use a Steganography package to create, transfer and read Hidden Messages without encryption

Amtek Company's 40th Anniversary Celebration

The Farmhouse Christiansburg - 285 Ridinger St, Christiansburg, VA 24073

5:30pm - 8:30pm

Please join us in celebrating our 40 years of working with educators with a buffet dinner and open bar at The Farmhouse Christiansburg. This dinner is FREE for anyone who attends at least one of our Certification Workshops on October 16-17.

New River Community College, Christiansburg / NRV Mall Site
782 New River Rd NW Suite 400, Christiansburg, VA 24073

New River Community College, Dublin Campus
5251 College Dr, Dublin, VA 24084

PROGRAM - THURSDAY, OCTOBER 17

Christiansburg / NRV Mall Site

*All NRV Mall Site lunches are served at 12:00pm in the Auditorium (Rm 123)

MakerBot 3D Printing Certification

8:00am - 12:00pm | Rm 147

Join us for a blended assessment based course that includes in-person and online training designed to help educators become 3D printing experts.

At our in-person training, you'll learn how to setup and run your 3D printer successfully in the classroom as a MakerBot Operator. Follow this up with our online training course that gives you the confidence to create your own 3D printing lesson plans or projects as a MakerBot Curriculum Creator.

Become a MakerBot 3D printing expert. Learn how to setup and manage your 3D printer, create your first prints and troubleshoot common issues. We'll cover:

- 3D printing technology & history
- Printer (setup and usage) and essential parts
- MakerBot Print
- Thingiverse & 3D Modeling
- Basic troubleshooting

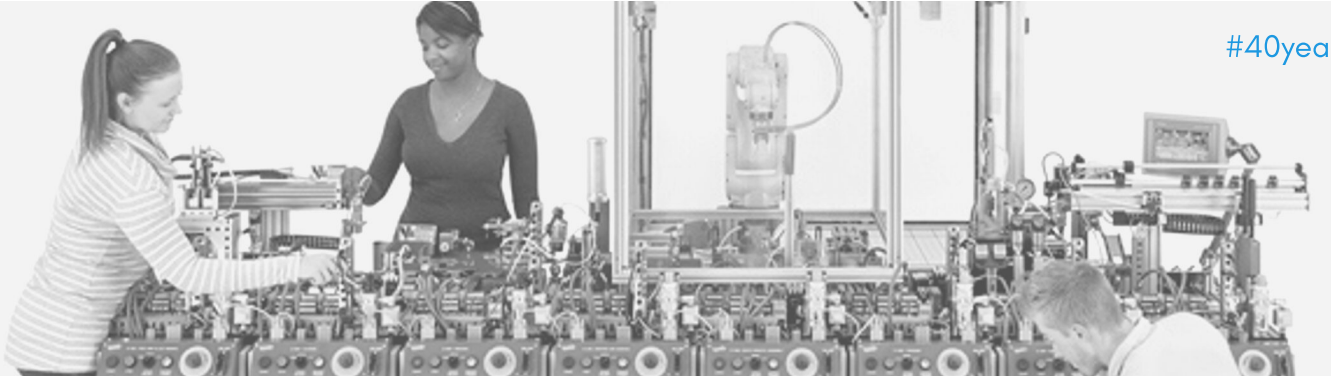
Stratasys Additive Manufacturing Certification

1:00pm - 4:00pm

Additive manufacturing (AM) is revolutionizing the way many products are designed and manufactured. However, unless companies can effectively scale this new technology into production uses, the real promise of AM may not be fulfilled. One of the challenges often identified as limiting AM's scale is the lack of a capable and skilled AM workforce. Join Stratasys, the global leader in 3D printing, to learn about what leading applications are being used right now in local businesses and multi-national corporations and what the future holds. Learn how schools are leaning into additive manufacturing as a cross-disciplinary tool for career readiness and innovation. And then walk away with knowledge of how you can help to prepare the workforce of tomorrow by offering a professional proficiency credential in additive manufacturing technologies, industries and applications, FDM and PolyJet materials and technology, design considerations from CAD to CAM, fabrication considerations and post-processing methods.

At this workshop, led by experts from Stratasys, attendees will learn:

- How additive manufacturing certifications are fundamentally changing workforce development in all industries
- 3D printing applications for K-12, community college, and university educators across disciplines, including CTE, Makerspaces/FabLabs, Business, Health Sciences, Engineering, Anthropology, Art, and more
- About the Stratasys Additive Manufacturing Certification Program and how to become an approved certification institution



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Dublin Campus

*All Dublin Campus lunches are served at 12:00pm in the Martin Hall Student Lounge (Rm 117)

MSSC & SACA Mechatronics & Industry 4.0 Certification *featuring Amatrol*

8:00am - 4:00pm | Rooker Hall Rm 117B

The fusion of emerging technologies and the Industrial Internet of Things (IIoT) has led to the creation of Smart Factories. Smart Factories require highly skilled workers to program, operate and maintain these advanced systems. However, industry is facing a skills shortage, and companies are struggling to find highly qualified technicians.

This workshop focuses on emerging Industry 4.0 technologies, educational systems designed to train the future workforce, and the certifications needed to ensure training meets industry expectations. Attendees will:

- Learn about Industry Recognized Credentials focused on preparing students for the Fourth Industrial Revolution: Industry 4.0)
- Hear how Manufacturing Skills Standards Council's (MSSC's) Certified Production Technician (CPT) certification serves as a solid foundation for Industry 4.0 training
- Receive hands-on training with MSSC/Amatrol's Skill Boss training system, which provides 50+ skills aligned to the MSSC-CPT certification
- Learn about new Smart Automation Certification Alliance (SACA) certifications aligned to emerging Industry 4.0 technologies and how your school can become a SACA pilot site
- See firsthand the new Smart Factory training system at New River Community College and hear how the school can incorporate Industry 4.0 training into its programs
- Discuss curriculum options – packed with a breadth and depth of automation topics and skills – for educational programs as well as customized workforce solutions

ASE & NATEF Certification *featuring LJ Create*

8:00am - 12:00pm | Rooker Hall Rm 128

This workshop focuses on ASE certification and how the AutoLAB program from LJ Create can help your students gain ASE certification. Attendees will:

- Learn to give students a solid understanding of automotive technology and fault-finding techniques using practical training equipment, such as sectioned components, automotive electrics, troubleshooting trainers, and more
- Receive hands-on training with a complete system of hardware and software resources used to teach automotive repair skills to NATEF standards (includes MLR, AST, and MAST)
- Explore comprehensive curriculum resources that cover all the theory behind ASE's Task List

Heavy Equipment Operations (HEO), Simulation, and NCCER Certification *featuring SimLOG*

9:00am - 12:00pm | Martin Hall Student Lounge, Rm 117

Operating heavy equipment such as backhoe loaders, excavators, and bulldozers, requires special skills that are very much in demand. And using Personal Simulators from Simlog, you can expose your students to such a possible career and set them on the path to high-paying jobs.

Led by Paul Freedman, Simlog's President, this workshop will:

- Describe job prospects for HEO in the construction industry
- Explore how Simlog's Personal Simulators can provide a learning environment that encourages skills exploration, with students learning in a self-managed way
- Present the "crosswalk" alignment between Simlog's Simulation Modules with the NCCER's (National Center for Construction Education & Research) certification
- Review two Customer Success Stories, about a career and technology center in South Carolina, and a community college in Florida
- Provide a "hands on" opportunity to "test drive" Simlog's Backhoe Loader Personal Simulator

Lift Truck Operations, Simulation, and OSHA/National Safety Council Certification *featuring SimLOG*

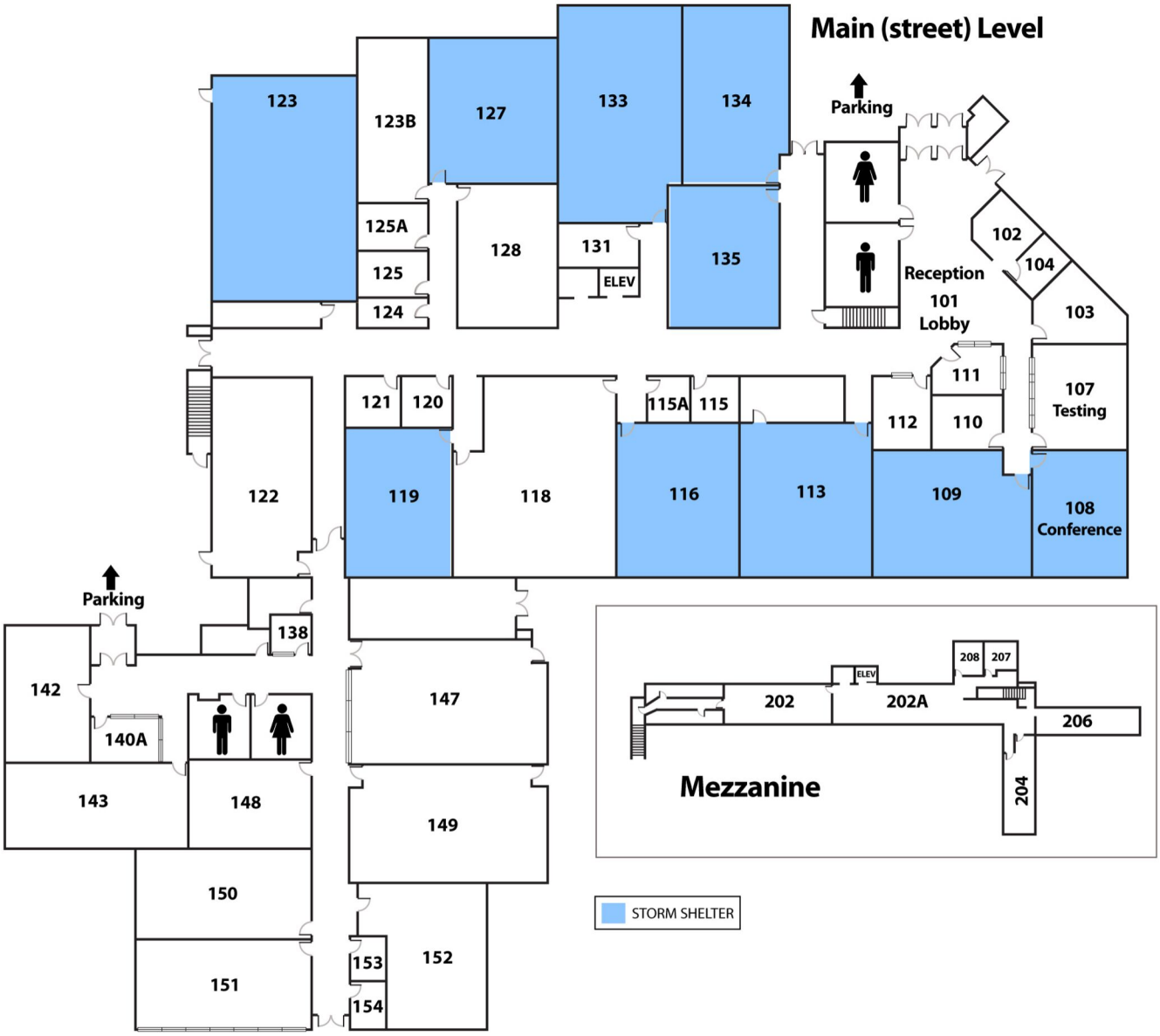
1:00pm - 4:00pm | Martin Hall Student Lounge, Rm 117

E-Commerce continues to drive the tremendous growth in transportation, distribution, and logistics with the new Amazon HQ destined for Virginia as one local example. For that reason, training people to operate sit-down counterbalance forklifts and stand-up reach lift trucks is increasingly important (lift truck operators are the highest paid hourly workers in the entire supply chain.)

Led by Paul Freedman, Simlog's President, this workshop will:

- Explore how Simlog's Personal Simulators can provide a learning environment that encourages skills exploration, with students learning in a self-managed way
- Present the "crosswalk" alignment between Simlog's Simulation Modules and OSHA/National Safety Council certification
- Review a Customer Success Story about a lift truck operator training program in New Jersey
- Provide a "hands on" opportunity to "test drive" Simlog's Forklift Personal Simulator

CHRISTIANSBURG / NRV MALL SITE



NRCC NRV Mall site, Christiansburg

DUBLIN CAMPUS - ROOKER HALL

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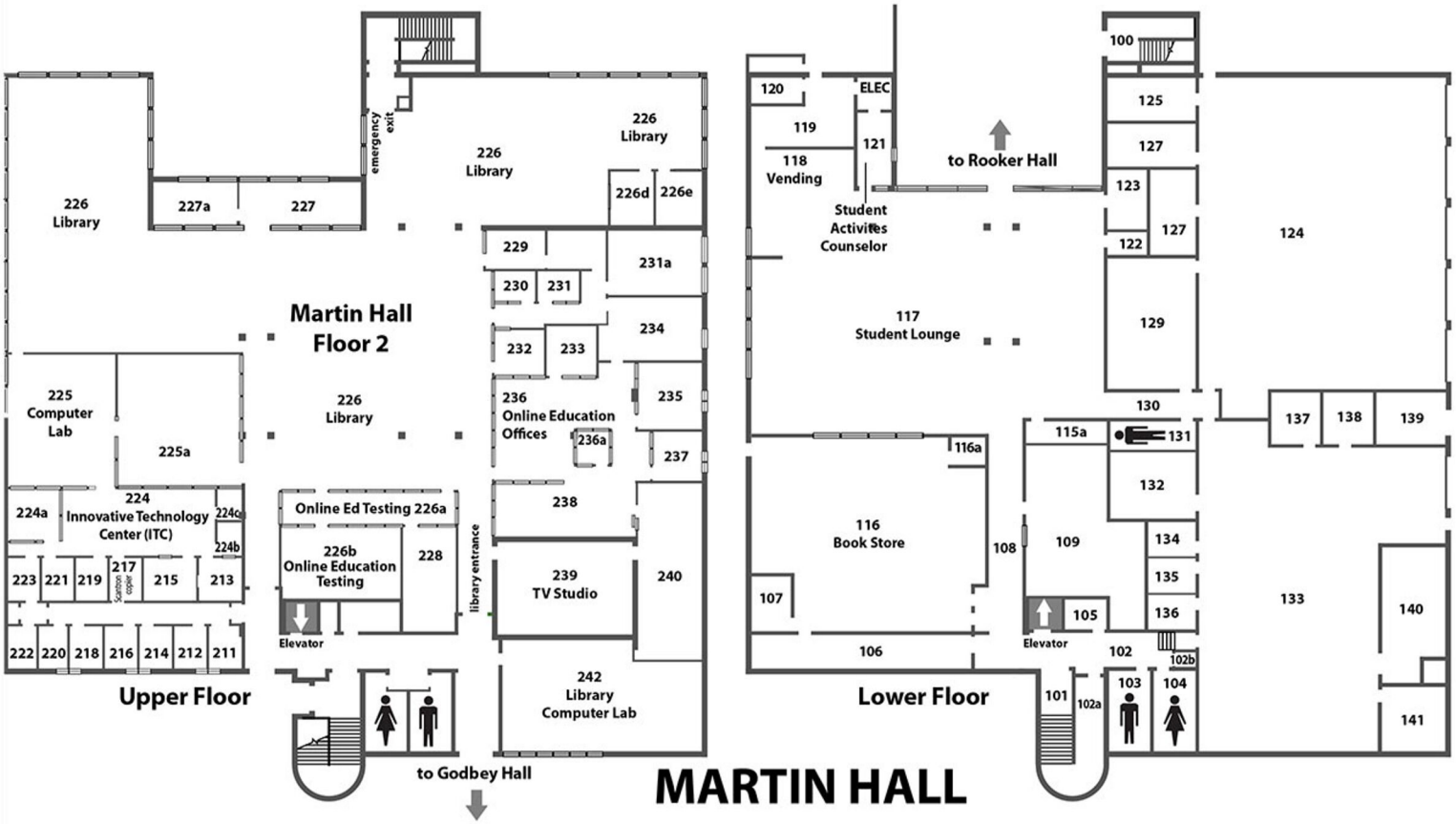
DUBLIN CAMPUS - MARTIN HALL



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