



WICHE Cooperative for
Educational Technologies

The leader in the practice, policy, & advocacy of technology-enhanced higher education.

Connecting Credentials and Right Signals Initiative

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**To increase the proportion of
Americans with high-quality
degrees, certificates and other
credentials to 60 percent by 2025.**

National Dialogue on Credentialing



Lumina Foundation/CSW/Co-Sponsors

National Summit – October 2015

Work Groups – Action Plan 2016

Field-Based Experimentation/Change

www.connectingcredentials.org

Creating a Connected Credentialing Ecosystem

- Common language
- Real-time data and technology
- Quality assurance to support portability and trust
- Scalable employer engagement – improve demand signals
- Pathways to increase equity

*Learning-
Based
&
Learner-
Centered*

The Right Signals Initiative

- American Association of Community Colleges (AACCC) 2-year effort
- Focus: Community Colleges working to improve connectivity of credentials (i.e. degree, industry certifications, badges, etc.)
- 20 colleges selected through Request For Proposal process facilitated by AACCC

Beta Credentials Framework

Purpose

- Helps users compare and contrast credentials
- Makes it easier to understand competencies associated with any credential
- Establishes a common language to describe across types of credentials what recipients should know and be able to do


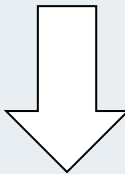
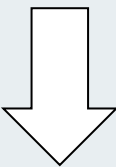
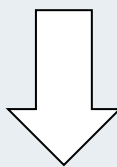
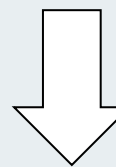
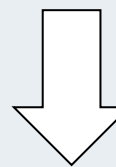
Development

- Developed by CSW team on behalf of Lumina Foundation with input from industry, colleges, certification/accreditation agencies, and policy organizations
- Aligns with DQP and Tuning initiative, the Employability Skills Framework, the Global Learning Qualifications Framework and others

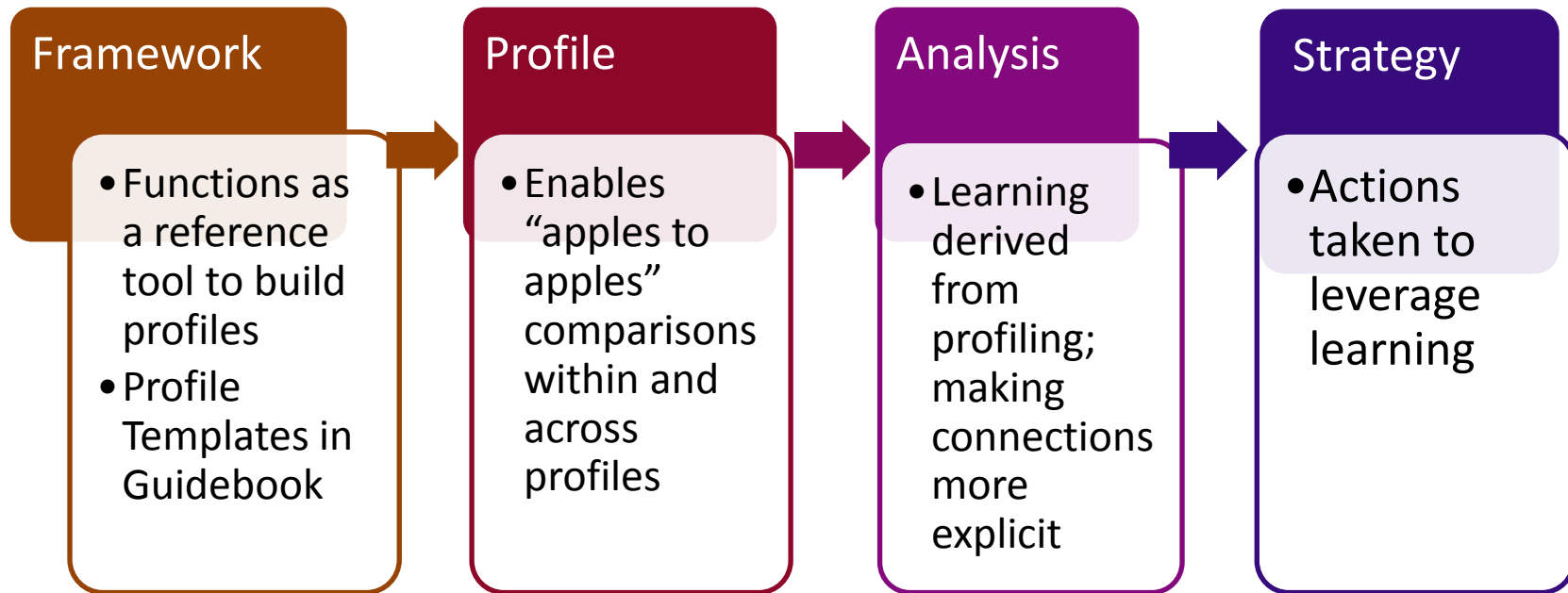
Structure

- Competency-based and content agnostic
- Organized around 2 learning domains; 1) Knowledge and 2) Skills (specialized, personal, and social)
- 8 levels determine the relative complexity, breadth and depth of learning achievement

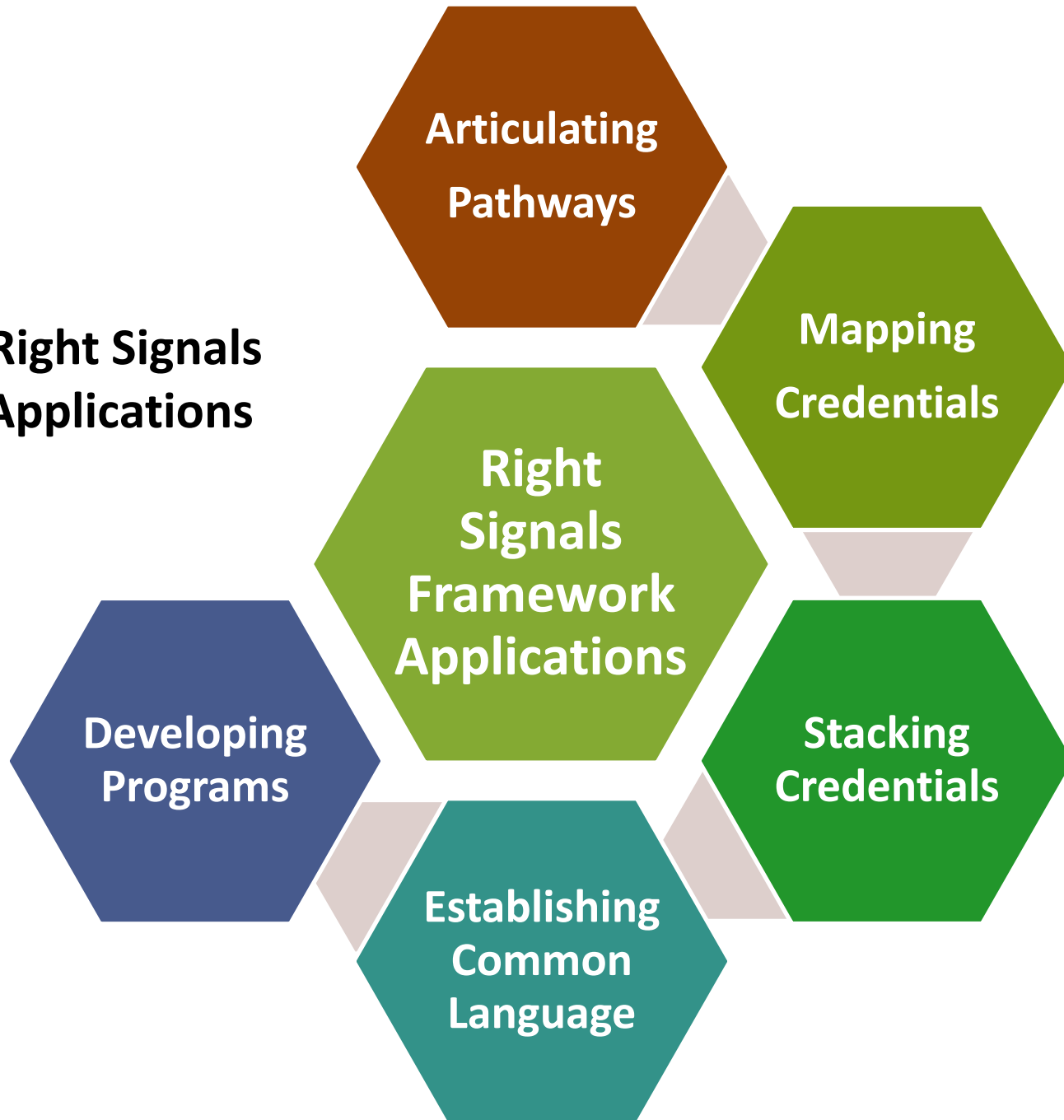
Snapshot of the Beta Credentials Framework

Levels	Knowledge	Skills			
The level requirements in study and work are described in terms of the degree of adaptability, range, complexity, and selectivity.	Knowledge describes what a learner knows, understands and can demonstrate. The requirements and competencies are described in terms of depth, breadth and dimension.	Skills describe what an individual can do in applying knowledge completing tasks, and solving problems (involving the use of logical, intuitive and creative thinking).	Specialized Skills The requirements and competencies are described in terms of: <ul style="list-style-type: none"> • Critical Thinking and Judgement; • Integrative Applications • Systems Thinking 	Personal Skills The requirements and competencies are described in terms of: <ul style="list-style-type: none"> • Autonomy • Responsibility • Self-Awareness and Reflection 	Social Skills The requirements and competencies are described in terms of: <ul style="list-style-type: none"> • Communication • Involvement • Teamwork and Leadership
Levels 1 - 8 	Levels 1 - 8 	Levels 1 - 8 	Levels 1 - 8 	Levels 1 - 8 	Levels 1 - 8 

Process to Use the Beta Credentials Framework



**Right Signals
Applications**



Profile Example Showing Stacking

	List Competencies or Learning Outcomes	Knowledge	Skills		Assessment Type and Proficiency (if relevant)	Rationale, Discoveries	
			Personal	Specialized Social			
<p>Potential Medical Assistant Badge</p> <p>Gaps?</p> <p>RN/BSN</p>	Describe how to use the most current diagnostic coding classification.	2	2	N/A	N/A	Outcomes-based Written sequence of process	Routine, structure, overall guidance
	Perform diagnostic coding	2	2	N/A	N/A	Outcomes-based Written sequence of process	Routine, structure, overall guidance
	Evaluate ways to promote safe, quality, evidence-based care to populations and communities in health care environments	4	4	4	4	Outcomes-based Written analysis Communication environment analysis	Subject to change, select principles and procedures, may involve overall supervisions Employability skills are implicit

Siemens Mechatronics Level 1: Course 1 Electrical Components

List Competencies or Learning Outcomes	Knowledge	Skills			Assessment Type and Proficiency (if relevant)	Rationale, Discoveries
		<i>Specialized</i>	<i>Social</i>	<i>Personal</i>		
Read, analyze and utilize the technical documents such as data sheets, timing diagrams, operation manuals, schematics, etc. for a mechatronics system.	4	4	N/A	N/A		
Correctly localize, identify and document causes of malfunctions in electrical components based upon technical documentations	3	3	N/A	N/A		
Trace and describe the flow of energy in a given mechatronic system or subsystem	4	4	4	4		
Transfer knowledge learned from one system to another	5	5	5	5		

Getting Started



The Guidebook contains:

- A list of applications and their purpose
- Step-by-step instructions for each application
- Application templates
- Instructions for individual or team engagement

Download and review the Framework and Guidebook

<http://connectingcredentials.org/framework/>

Types of Technical Support

- Train-the-Trainer Workshops
- Webinars and User Groups
- Coaching and Consultation
- Tool Development
- Systems Change Mapping
- Strategies to Scale Work

Contact: slupo@skilledwork.org



Continuous Improvement and Innovation

- Beta version of the Framework
- Proof-of-Concept/Field Testing phase
- Establishing a community of users
- Other projects are in the mix
- Rich repository of learning to share across colleges and projects
- Discover new applications
- Improve the use and function of the Framework

Contact: slupo@skilledwork.org

Rio Salado College (RSC)

- Established in 1978 to serve non-traditional students
- One of ten individually accredited colleges in the Maricopa County Community College District
- RSC serves over 56,000 students annually
- High portion of students are working adults who attend part-time and take longer to complete
- Roughly half students are online and other half are from partnerships



Challenge

- Credentialing world is confusing – lack of common language
- Resistance from higher education in recognizing industry credentials



Opportunity

- Create a common language, through the Credentials Framework, where the value of industry credentials and credit for prior learning can be better understood and lay the groundwork for both to be more readily accepted



Approach

Early Childhood Education (ECE)

Program that is designed incrementally and sequentially to help undergraduate students or early childhood practitioners take their next step in their education and career path.

<http://www.riosalado.edu/testing/prior-learning/Documents/certificates-licenses.pdf>



Rio Salado College Right Signals Project

Three key strategies

1. Alignment of ECE industry competencies to the Connecting Credentials Framework (CCF).
 - Recognition of Child Development Associate (CDA) National Credential.
(9 credits EED205, EED212, & EED215)
 - Align CCF with Arizona Early Childhood Workforce Career Lattice



Rio Salado College Right Signals Project

Three key strategies

2. Providing an Engagement Specialist (Coach) for each student receiving credit for prior learning for an ECE industry credential to create, implement, and review an individualized academic and career plan.



Rio Salado College Right Signals Project

Three key strategies

3. Using the ECE/CCF alignment, create simplified materials (handbook) and conduct events designed to inform students and employers of RSC's ability to support credit for prior learning, ECE education and career preparation.



Objectives

- Provide credential recognition as both a means to attract students and as a stepping stone to further a student's academic journey
- Provide clearer credential paths and ultimately, increase persistence and completion
- With applicability of framework, expand usage to with other faculty to other programs across the college and district



Gateway Community and Technical College

- Founded in 2001
- One of 16 regional community and technical colleges in Kentucky – part of KCTCS statewide system
- Approximately 3,500 students
- SACS Accredited
- Grantee of The Right Signals Grant and First in the World Grant
 - First in the World resulted in Information Commons and Urban Metro Campus

Enhanced Operator Certificate Program

- Local manufacturers identified a weak pipeline of Enhanced Machine Operators
 - Estimated to be short 260 workers/year
 - Positions being filled unsuccessfully by temp agencies
- Initially proposed as a 2 semester, 30 credit hour program was consolidated to a 16 week, 14 credit hour program

Enhanced Operator Certificate Program

- Local manufacturers include:
 - Bosch Automotive Steering
 - Fives
 - Linamar
 - Mazak
 - Mubea
 - Safran/Messier-Buggati-Dowty
 - Zumbiel

Enhanced Operator Certificate Program

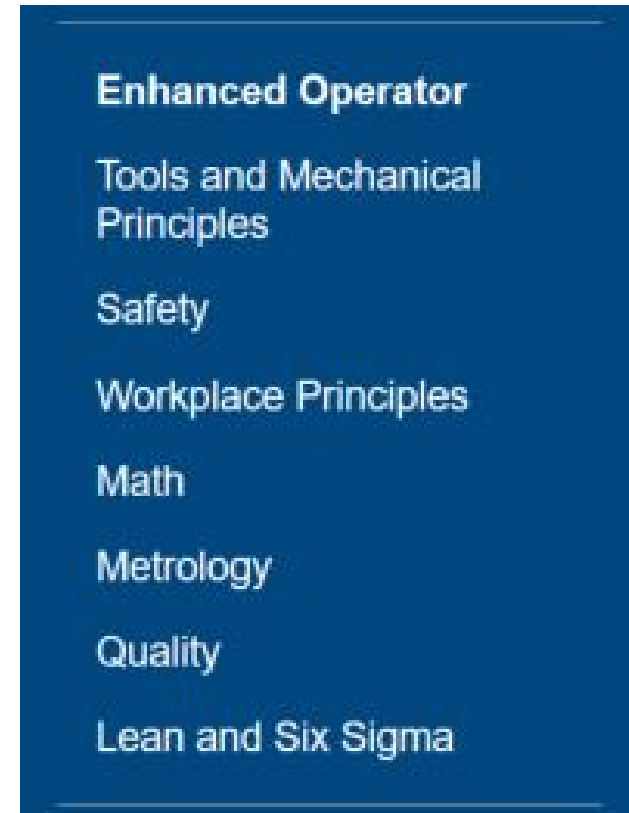
- Employers and faculty reviewed course objectives to determine which objectives their employees needed to be successful
- This cut down on time and financial investment for each student
- These earned credits can be transferred in to the College toward the Manufacturing Engineering Technology Associate in Applied Science program

Enhanced Operator Certificate Program

- Courses:
 - Workplace Principles (1 cr)
 - Industrial Safety (1 cr)
 - Applied Mathematics (3 cr)
 - Hand and Power Tools, including Mechanical Principles and Linkages (1 cr)
 - Lean Manufacturing (2 cr)
 - Metrology and Control Charts (2 cr)
 - Quality Management Systems (3 cr)
 - Lean Six Sigma Yellow Belt Preparation (1 cr)

Enhanced Operator Certificate Program

- The course is structured as a hybrid.
 - Originally 1 Lab every week for 16 weeks
 - Now 8 total labs, students can be complete in 12 weeks
- Online portions use Blackboard
- There are 2 face-to-face sessions each week to accommodate schedules



Enhanced Operator Certificate Program

- Orientation session steps students through the online course process

START Here

GTW_4162-03_Enhanced_Operator (GTW_4162-03_Enhanced_Operator)

Homepage

START Here

Announcements

Enhanced Operator

Tools and Mechanical Principles

Safety

Workplace Principles

Math

Metrology

Quality

Lean and Six Sigma

Faculty Information

Syllabus

Course Roadmap

Course Calendar

Communicate

My Grades

Check your Progress

Help Center

Let's Get Started!

Introduction

Hello! Welcome to the Enhanced Operator Certificate Program!

The START Here module will serve as an orientation to the online portion of class.

In this module we're going to review the syllabus, set some expectations, and get to know each other before diving into the course material.

Please review this module's learning objectives and complete the learning activities PRIOR to starting the course.

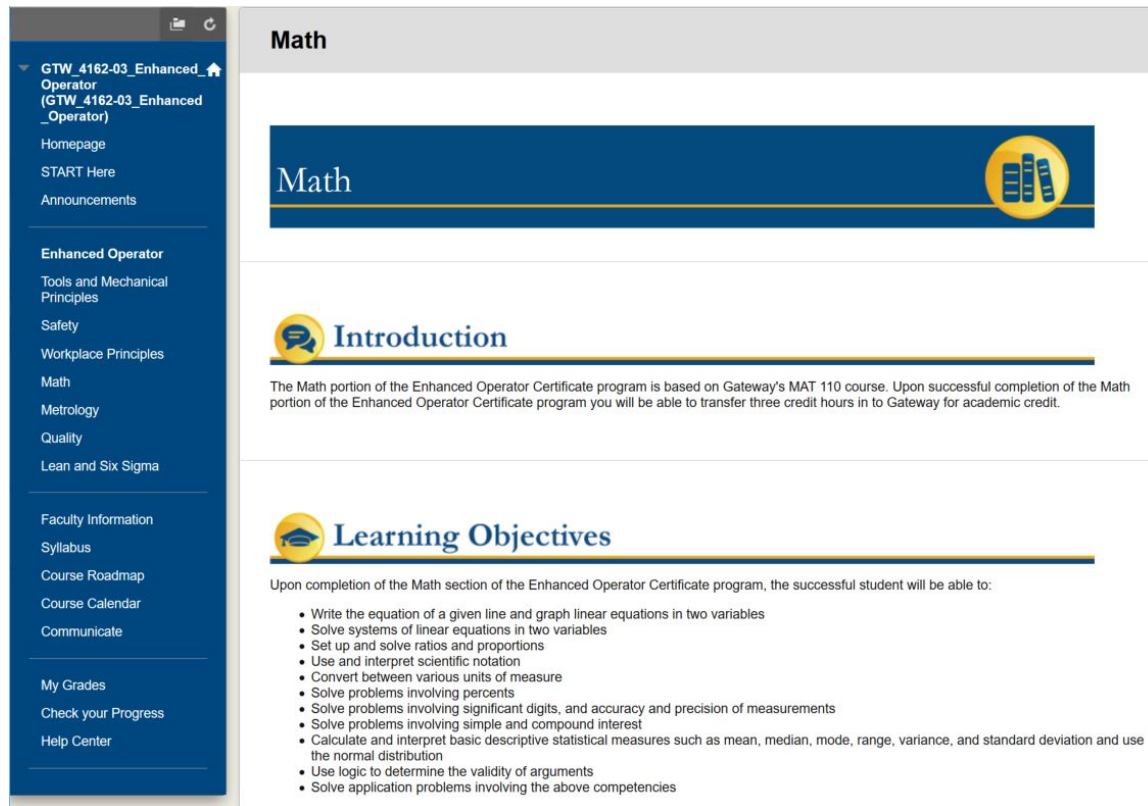
Browser Support

If you do not see a video or video window above or are having problems viewing video in this course, click on your browser icon below and follow the instructions.

Internet Explorer, Firefox, Chrome, Safari

Enhanced Operator Certificate Program

- Math is one of seven primary content areas. This includes a remediation portion.



The screenshot displays a web page for the "Math" section of the Enhanced Operator Certificate Program. On the left is a dark blue navigation sidebar with the following menu items: GTW_4162-03_Enhanced_Operator (GTW_4162-03_Enhanced_Operator), Homepage, START Here, Announcements, Enhanced Operator, Tools and Mechanical Principles, Safety, Workplace Principles, Math, Metrology, Quality, Lean and Six Sigma, Faculty Information, Syllabus, Course Roadmap, Course Calendar, Communicate, My Grades, Check your Progress, and Help Center. The main content area has a grey header with the word "Math". Below this is a blue banner with the word "Math" and a yellow circular icon containing three books. The next section is titled "Introduction" with a yellow speech bubble icon. The text states: "The Math portion of the Enhanced Operator Certificate program is based on Gateway's MAT 110 course. Upon successful completion of the Math portion of the Enhanced Operator Certificate program you will be able to transfer three credit hours in to Gateway for academic credit." The final section is titled "Learning Objectives" with a yellow graduation cap icon. The text states: "Upon completion of the Math section of the Enhanced Operator Certificate program, the successful student will be able to:" followed by a bulleted list of 12 objectives.

Math

Math

Introduction

The Math portion of the Enhanced Operator Certificate program is based on Gateway's MAT 110 course. Upon successful completion of the Math portion of the Enhanced Operator Certificate program you will be able to transfer three credit hours in to Gateway for academic credit.

Learning Objectives

Upon completion of the Math section of the Enhanced Operator Certificate program, the successful student will be able to:

- Write the equation of a given line and graph linear equations in two variables
- Solve systems of linear equations in two variables
- Set up and solve ratios and proportions
- Use and interpret scientific notation
- Convert between various units of measure
- Solve problems involving percents
- Solve problems involving significant digits, and accuracy and precision of measurements
- Solve problems involving simple and compound interest
- Calculate and interpret basic descriptive statistical measures such as mean, median, mode, range, variance, and standard deviation and use the normal distribution
- Use logic to determine the validity of arguments
- Solve application problems involving the above competencies

Enhanced Operator Certificate Program

- Diagnostic Exams are used to test for prior learning

Diagnostic Exam

You have thirty minutes to complete the Safety Diagnostic Exam. The content for the Safety portion will be available to you once you have taken the Diagnostic Exam. Once you have reviewed all of the content and completed all of the quizzes, you will have access to the Safety Final.

If you earn a 70% or better on the Diagnostic Exam, you will be able to take the Final Exam immediately. It is strongly suggested that you review all of the content in this section before moving on to the final.

Safety Diagnostic Test

Enabled: Adaptive Release

Learning Activities

Lesson 1 - Introduction

Enabled: Adaptive Release

After completing this lesson, you will be able to:

1. Identify who is responsible for safety.
2. Define "accident" and "hazard".
3. Name and define 4 main types of hazards.
4. List and define various types of accidents.
5. Compare meanings of "unsafe act" and "unsafe condition".

Enhanced Operator Certificate Program

- Badges allow students to better track their progress

The screenshot displays a user interface for 'My Achievements'. On the left is a dark blue navigation sidebar with the following menu items: GTW_4156-02_Enhanced_Operator (GTW_4156-02_Enhanced_Operator), Homepage, START Here, Enhanced Operator, Tools and Mechanical Principles, Safety, Workplace Principles, Math, Metrology, Quality, Lean and Six Sigma, Faculty Information, Syllabus, Course Roadmap, Course Calendar, Communicate, My Grades, Check your Progress, and Help Center. Below the sidebar is a 'COURSE MANAGEMENT' section with 'Control Panel', 'Files', and 'Course Tools'. The main content area is titled 'My Achievements' and features a profile for 'Steven McGuire' with a placeholder image and the text 'You have 0 new achievement(s)'. Below the profile are three tabs: 'All Achievements', 'Earned Achievements', and 'Unearned Achievements'. The 'Earned Achievements' tab is active, showing a grid of eight achievement cards. Each card includes an icon, a title, and a congratulatory message. The cards are: 1. Lean Simulation (Lean icon) with message 'Congratulations! As a part of the Lean and ...'; 2. Math (Math icon) with message 'Congratulations on completing Math! Here ...'; 3. Metrology (Metrology icon) with message 'Congratulations on completing Metrology! ...'; 4. Quality (Quality icon) with message 'Congratulations! You have passed the Qua...'; 5. Safety (Safety icon) with message 'Congratulations on completing Safety! Her...'; 6. Six Sigma/Yellow Belt Prep (Six Sigma icon) with message 'Congratulations on Completing the Yellow ...'; 7. Tools and Mechanical Principles (Tools icon) with message 'Congratulations on completing Hand and P...'; 8. Workplace Principles (Workplace icon) with message 'Congratulations on completing Workplace ...'. Each card has a three-line menu icon on the right side.

Enhanced Operator Certificate Program

- First cohort was a pilot to incumbent workers
- Second cohort was open to incumbent workers as well as un/under-employed students
- Now open to any students
- This fall will see a High School cohort

Enhanced Operator Certificate

Enhanced Operator is a 16-week training program designed by local employers to satisfy the skillset needed to fill positions at their companies.

APPLY NOW

Choose your path

1. Earn an Enhanced Operator Certificate, a locally recognized industry certificate
2. Receive preparation to sit for the Lean Six Sigma Yellow Belt Certification exam
3. Earn 14 hours of college credit toward the Manufacturing Engineering Technology Associate in Applied Science

Benefits

- Online learning that works into your schedule
- Convenient lab schedule options
- Complete in about half the time for half the cost
- Hands-on learning
- Portions of the curriculum self-paced
- Opportunities to test out of modules based on knowledge and experience
- Networking with local employers
- Guaranteed interviews with select industry partners

Founding Industry Partners

Safran MBD	Mubea
Zumbiel	Linamar Eagle
Bosch	Zotefoams
Mazak	Armor USA

Cost

Total course \$2300
No additional textbook cost
\$195 Lean Six Sigma Yellow Belt Certification Exam (optional)
Some employers offer scholarships or tuition reimbursement

For more information about the program, contact Michelle Flick, (859) 815-7687

Enhanced Operator Certificate Program

Cost Challenge

- The course costs \$2300/student
- Financial Aid not currently available
- Scholarships from Duke Energy
- Industry partners sponsor students
- Industry partners pay for incumbent workers
- Open source – only one book to buy, everything else online

Time Challenge

- Development
 - Roughly 6 weeks to build
 - Third revision
- Students
 - What does 14 credit hours mean?
 - Confusion on what will be asked of students
- Employers
 - Give students time during the day to work
 - Potential scheduling conflicts with lab sessions

Enhanced Operator Certificate Program

College Challenge

- How will credit transfer?
- How will billing work?
- Enhanced Operator students are not full college students and do not have access to some online resources (Office 365)
- Trying to fit industry to a standard semester schedule

Student Challenges

- Enrolling students
 - Get the word out to those who are interested
 - Some are very excited to get started or complete a degree
- Keeping students
 - Students feel overwhelmed because some have been away from school for a while
- Employers
 - Opening the pipeline

Questions?