Michigan's Work-Ready Transcript:
A statewide, comprehensive learner record of work-ready achievement for presenting meaningful credentials to employers and post-secondary institutions in support of competency-based, lifelong learning, and career-success.

Bruce Umpstead
Director, State Engagement
IMS Global Learning Consortium
bumpstead@imsglobal.org
517.290.6084

Mary Sutton
Executive Director
Michigan After-School Partnership
msutton@uwmich.org
517-371-4360

Michigan House of Representatives
School Aid and Department of Education Subcommittee

March 4, 2020

Outline:

1. Mike Rowe's & The Skill Gap Page 1

2. The Problem with Educational Software Page 2

3. Why Afterschool and Out-Of-School Programs Page 3

Mary Sutton, Executive Director
Michigan After-School Partnership

4. Michigan Council & Michigan's Children Page 6

5. Michigan Seal of Biliteracy Page 7

6. Deploying Work-Ready Transcripts Page 8

Example 1: Enhanced College Transcript Page 9

Example 2: Competency-Based Transcript Page 10

Example 3: Global Experiential Transcript Page 11

Example 4: Talent 2025 – Employability Skills Page 12

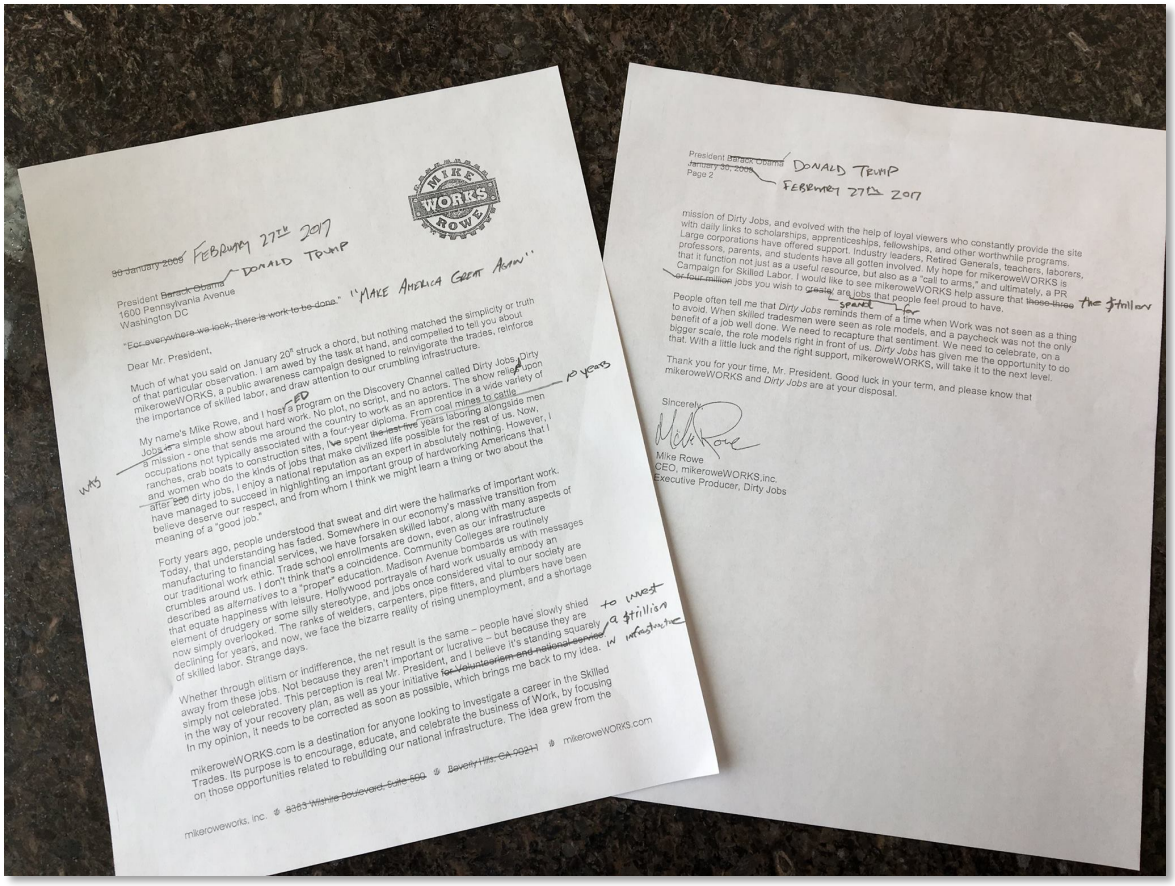
Attachment 1: Letter of Endorsement: Michigan's Children

Attachment 2: Wayne State University C2 Pipeline + Tallo Certified Resume

Mike Rowe's Letter to the Last Two Presidents

http://insider.foxnews.com/amp/article/54635

"There's a belief ... in the country that we can cure unemployment by creating opportunity," Rowe said. "The skills gap proves that opportunity alone is not enough to get people employed." – Mike Rowe, Dirty Jobs



Dear Mr. President,

Much of what you said on January 20th struck a chord, but nothing matched the simplicity or truth of that particular observation. I am awed by the task at hand, and compelled to tell you about mikeroweWORKS, a public awareness campaign designed to reinvigorate the trades, reinforce the importance of skilled labor, and draw attention to our crumbling infrastructure.

My name's Mike Rowe, and I host a program on the Discovery Channel called Dirty Jobs. Dirty Jobs is a simple show about hard work. No plot, no script, and no actors. The show relies upon a mission - one that sends me around the country to work as an apprentice in a wide variety of occupations not typically associated with a four-year diploma. From coal mines to cattle ranches, crab boats to construction sites, I've spent the last five years laboring alongside men and women who do the kinds of jobs that make civilized life possible for the rest of us. Now, after 300 dirty jobs, I enjoy a national reputation as an expert in absolutely nothing. However, I have managed to succeed in highlighting an important group of hardworking Americans that I believe deserve our respect, and from whom I think we might learn a thing or two about the meaning of a "good job."

Forty years ago, people understood that sweat and dirt were the hallmarks of important work. Today, that understanding has faded. Somewhere in our economy's massive transition from manufacturing to financial services, we have forsaken skilled labor, along with many aspects of our traditional work ethic. Trade school enrollments are down, even as our infrastructure crumbles around us. I don't think that's a coincidence. Community Colleges are routinely described as alternatives to a "proper" education. Madison Avenue bombards us with messages that equate happiness with leisure. Hollywood portrayals of hard work usually embody an element of drudgery or some silly stereotype, and jobs once considered vital to our society are now simply overlooked. The ranks of welders, carpenters, pipe fitters, and plumbers have been declining for years, and now, we face the bizarre reality of rising unemployment, and a shortage of skilled labor. Strange days.

Whether through elitism or indifference, the net result is the same – people have slowly shied away from these jobs. Not because they aren't important or lucrative – but because they are simply not celebrated. This perception is real Mr. President, and I believe it's standing squarely in the way of your recovery plan, as well as your initiative for Volunteerism and national service. In my opinion, it needs to be corrected as soon as possible, which brings me back to my idea.

mikeroweWORKS.com is a destination for anyone looking to investigate a career in the Skilled Trades. Its purpose is to encourage, educate, and celebrate the business of Work, by focusing on those opportunities related to rebuilding our national infrastructure. The idea grew from the

mikeroweworks, inc. ❖ 8383 Wilshire Boulevard, Suite 800 ❖ Beverly Hills, CA 90211 ❖ mikeroweWORKS.com

President Donald Trump
February 27th 2017
Page 2

mission of Dirty Jobs, and evolved with the help of loyal viewers who constantly provide the site with daily links to scholarships, apprenticeships, fellowships, and other worthwhile programs. Large corporations have offered support. Industry leaders, Retired Generals, teachers, laborers, professors, parents, and students have all gotten involved. My hope for mikeroweWORKS is that it function not just as a useful resource, but also as a "call to arms," and ultimately, a PR Campaign for Skilled Labor. I would like to see mikeroweWORKS help assure that those three jobs you wish to create are jobs that people feel proud to have.

People often tell me that *Dirty Jobs* reminds them of a time when Work was not seen as a thing to avoid. When skilled tradesmen were seen as role models, and a paycheck was not the only benefit of a job well done. We need to recapture that sentiment. We need to celebrate, on a bigger scale, the role models right in front of us. *Dirty Jobs* has given me the opportunity to do that. With a little luck and the right support, mikeroweWORKS, will take it to the next level.

Thank you for your time, Mr. President. Good luck in your term, and please know that mikeroweWORKS and *Dirty Jobs* are at your disposal.

Sincerely,

Mike Rowe
CEO, mikeroweWORKS.inc
Executive Producer, Dirty Jobs

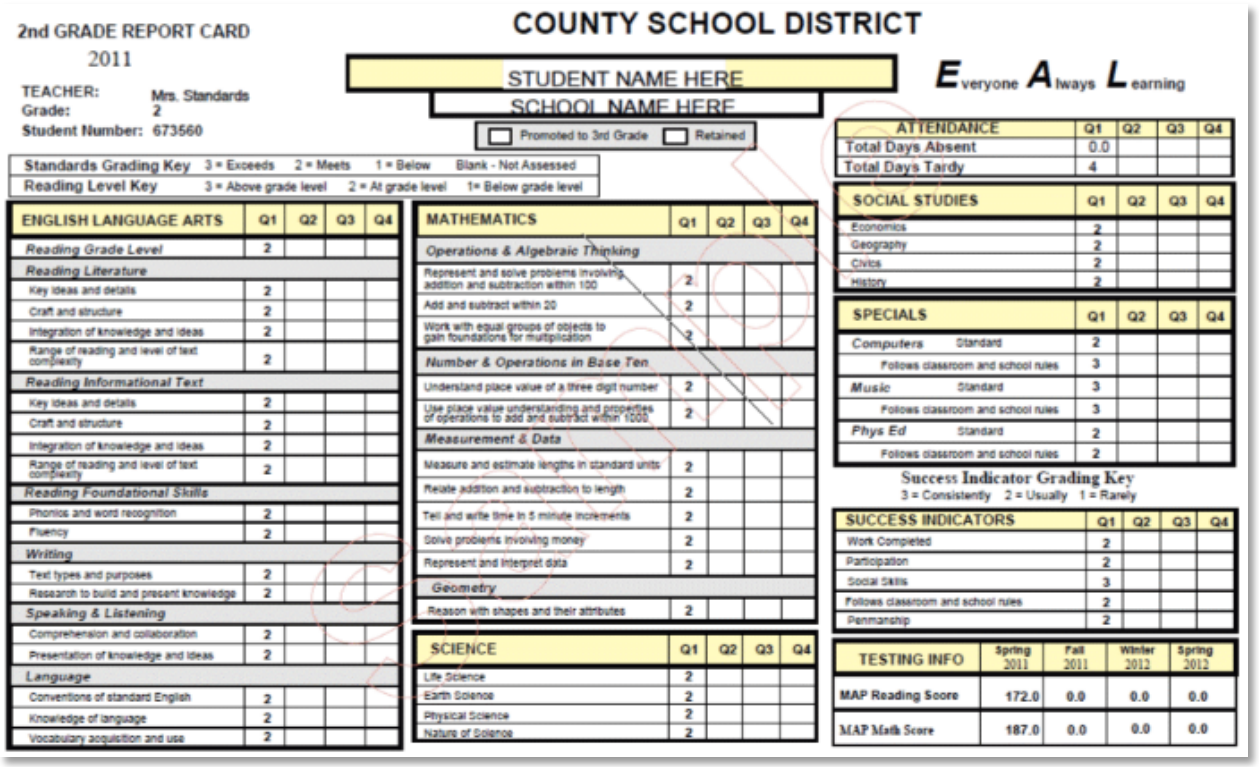
Bottom Line:

- Not much changed from 2007 to 2020.
- Despite Michigan's $100 Million in Marshall Plan for Talent, students don't have a way of presenting their work-ready skills on their 2020 transcripts.

Employers aren't asking for our students' high school transcripts.

The Problem with Educational Software

Education software DOES NOT track by work-ready skills and competencies. Our transcript system, gradebooks, and student information systems meet CURRENT MARKET DEMAND. Unfortunately, K12 innovators only discover the software issues after they are SEVERAL YEARS into their redesign.



2nd GRADE REPORT CARD
2011

COUNTY SCHOOL DISTRICT

TEACHER: Mrs. Standards
Grade: 2
Student Number: 673560

STUDENT NAME HERE
SCHOOL NAME HERE

☐ Promoted to 3rd Grade ☐ Retained

*E*veryone *A*lways *L*earning

Standards Grading Key 3 = Exceeds 2 = Meets 1 = Below Blank - Not Assessed
Reading Level Key 3 = Above grade level 2 = At grade level 1= Below grade level

ENGLISH LANGUAGE ARTS	Q1	Q2	Q3	Q4
Reading Grade Level	2			
Reading Literature				
Key ideas and details	2			
Craft and structure	2			
Integration of knowledge and ideas	2			
Range of reading and level of text complexity	2			
Reading Informational Text				
Key ideas and details	2			
Craft and structure	2			
Integration of knowledge and ideas	2			
Range of reading and level of text complexity	2			
Reading Foundational Skills				
Phonics and word recognition	2			
Fluency	2			
Writing				
Text types and purposes	2			
Research to build and present knowledge	2			
Speaking & Listening				
Comprehension and collaboration	2			
Presentation of knowledge and ideas	2			
Language				
Conventions of standard English	2			
Knowledge of language	2			
Vocabulary acquisition and use	2			

MATHEMATICS	Q1	Q2	Q3	Q4
Operations & Algebraic Thinking				
Represent and solve problems involving addition and subtraction within 100	2			
Add and subtract within 20	2			
Work with equal groups of objects to gain foundations for multiplication	2			
Number & Operations in Base Ten				
Understand place value of a three digit number	2			
Use place value understanding and properties of operations to add and subtract within 1000	2			
Measurement & Data				
Measure and estimate lengths in standard units	2			
Relate addition and subtraction to length	2			
Tell and write time in 5 minute increments	2			
Solve problems involving money	2			
Represent and interpret data	2			
Geometry				
Reason with shapes and their attributes	2			

SCIENCE	Q1	Q2	Q3	Q4
Life Science	2			
Earth Science	2			
Physical Science	2			
Nature of Science	2			

ATTENDANCE	Q1	Q2	Q3	Q4
Total Days Absent	0.0			
Total Days Tardy	4			

SOCIAL STUDIES	Q1	Q2	Q3	Q4
Economics	2			
Geography	2			
Civics	2			
History	2			

SPECIALS	Q1	Q2	Q3	Q4
Computers Standard	2			
Follows classroom and school rules	3			
Music Standard	3			
Follows classroom and school rules	3			
Phys Ed Standard	2			
Follows classroom and school rules	2			

Success Indicator Grading Key
3 = Consistently 2 = Usually 1 = Rarely

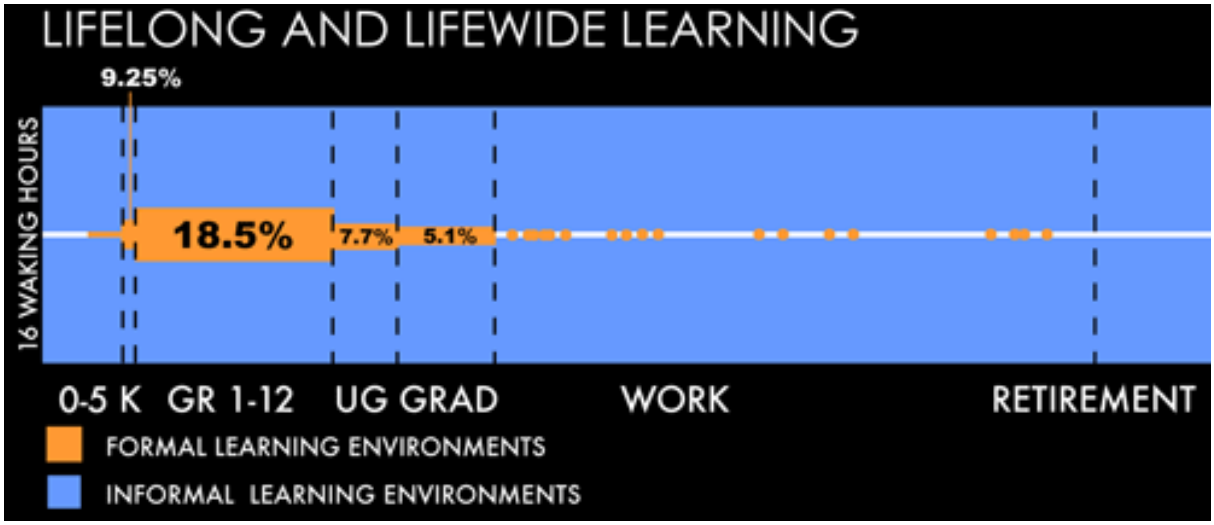
SUCCESS INDICATORS	Q1	Q2	Q3	Q4
Work Completed	2			
Participation	2			
Social Skills	3			
Follows classroom and school rules	2			
Penmanship	2			

TESTING INFO	Spring 2011	Fall 2011	Winter 2012	Spring 2012
MAP Reading Score	172.0	0.0	0.0	0.0
MAP Math Score	187.0	0.0	0.0	0.0

Where does the Work-Ready Skills go—especially for After-School and Out-of-School Credentials?

Why Afterschool & Out-of-School Programs

Time and Opportunity Matter



MASP is a coalition of statewide stakeholders with a vision that all Michigan students will have access to the opportunities and experiences to help them be successful in school and as future contributing members of a thriving workforce and community.

Youth spend less than 20% of their waking hours in school and more than 80% in non-school settings (Banks et al., 2007).

Out of school time hours provide significant opportunity to have a positive impact on student's engagement, experiences and opportunities. Afterschool programs take place during afterschool hours, before school, or during school holidays and the summer. These programs have, in many ways, increased flexibility that can be maximized to provide opportunities for students to engage in career readiness in authentic and engaging settings. For Michigan students to thrive today, they must have opportunities to develop, practice and demonstrate a wide array of skills and abilities.

Each day throughout our state, over 200,000 students are engaging in hands-on, experiential learning through afterschool programs that focus on technology, sciences, arts, and other areas that engage and interest them. Through programs like Youth in Government with the YMCA, First Robotics, Scouting, Renewable Energy Summer Camps at MSU with 4H and exploring career pathways at the C2 Pipeline at Wayne State University kids get excited, develop confidence and develop passions about their learning.

The Jackson Area Manufacturing Association has partnered with schools, community and industry members in the region to create opportunities in afterschool and summer as part of a comprehensive strategy to build a pipeline for manufacturing jobs in the region. These students are learning real skills, competencies and given the opportunity to apply knowledge and master skills learned in the classroom. These programs are helping them develop 21st century skills through opportunities for leadership, teamwork, critical thinking and problem solving.

Students from historically underserved backgrounds and low-income families especially benefit from these programs and help to level the playing field by making these experiences available to students who may otherwise not have access to them during the school day or on their own after school or in the summer.

C2 Pipeline at WSU is a 21st CCLC afterschool program exposing students to careers and awarding badges to students who demonstrate achievement. (Please see Attachment 2 to this briefing document.) They are able to earn a variety of badges aligned with career pathways that demonstrate the skills and experiences gained in the program. Likewise, First Robotics participants have earned over 15,000 badges in Machining, Programming, CAD, Electronics, Engineering Design and Partnerships and Leadership.

We know in our approach to solving some of the tremendous challenges we face in our education system that we need to create opportunities to nourish the whole child. Significant investments are being made in each end of the education spectrum from early childhood through college and career transitions. Investments in afterschool and summer learning programs need to be a documented part of every student's educational experience.

Supporting and educating students requires acknowledgement of the entirety of their unique skills, abilities and experiences. That acknowledgement of the totality of a student's competencies provides a currency that is only realized if those skills are seen and presented as a complete picture of the student and recognized.

First Robotics: 15,000 + badges have been awarded

Examples of Badge offerings in programs include:

- Machining
- Programming
- Communications
- Leadership
- CAD
- Electronics
- Engineering and Design Entrepreneurship
- Financial Literacy
- Biotech Med
- Forensic Science
- Green Architecture

Michigan Crossroads Council

The Boy Scouts of American and Michigan Crossroads Council is invested in introducing and preparing our Scouts for successful careers, also as lifelong learners. We already provide our Scouts and troops with a platform to track their Scouting experiences and badges digitally through a program called Scoutbook, but how do we enable them to share their achievements and learning with colleges, universities, and employers? A work-ready transcript promises to provide the technology bridge for sharing this good work. It takes a community to help parents raise a child, we're ready -- let's collaborate and get this done!

— Don Shepard, Scout Executive/CEO

Michigan's Children

For young people who find themselves struggling to graduate in four years due to challenging life circumstances, including students experiencing poverty, foster care, homelessness, or juvenile justice, expanded learning opportunities through afterschool and summer learning programs take on critical importance in helping them build concrete skills, from teamwork to specific professional skills, while connecting them with college and career opportunities. Unfortunately, many of the valuable skills and experiences young people gain in these programs go unrecognized as evidence of their learning because they are not found on a transcript.

— Matt Gillard, President & CEO

The Michigan Seal of Biliteracy

The Michigan Seal of Biliteracy has been created to recognize high school graduates who exhibit language proficiency in English and at least one additional world language. The Seal may be awarded to any student receiving a high school diploma, a high school certificate of completion or a high school equivalency certificate and who has demonstrated Intermediate High proficiency on acceptable world language assessments. The Seal has been created to encourage students to study world languages and embrace their native and heritage languages. The Seal will provide employers with a way to identify individuals with strong language and biliteracy skills. The Seal may serve as an additional tool for colleges and universities to recognize applicants' language abilities for admission and placement.

It's about Career Readiness.

In a recent survey of U.S. employers, 66% reported valuing foreign language skills in the hiring process, and 41% reported giving preference to multilingual job candidates (Damari et al., 2017). In Michigan, international trade-related jobs grew 17% from 2004 to 2014 while total employment declined 1% (Business Roundtable, 2015). There is also a growing need for bilingual employees across a wide range of occupations, regardless of educational requirements or salary (New American Economy, 2017). The Michigan Seal of Biliteracy serves as an endorsement to employers that a high school graduate enters the workforce with highly desired skills in more than one language.

Source: https://www.michigan.gov/mde/0,4615,7-140-81351-456570--,00.html

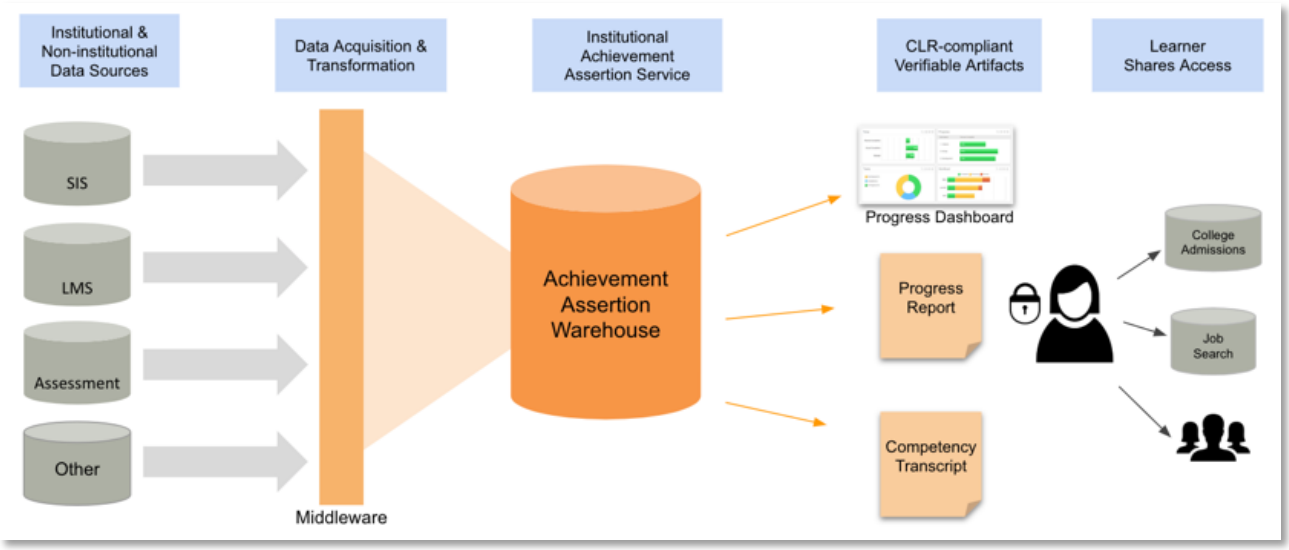
Deploying Work-Ready Transcripts

This project proposes to provide the Michigan Center for Educational Performance & Information (CEPI) with three years of grant funding to establish work-ready transcripts.

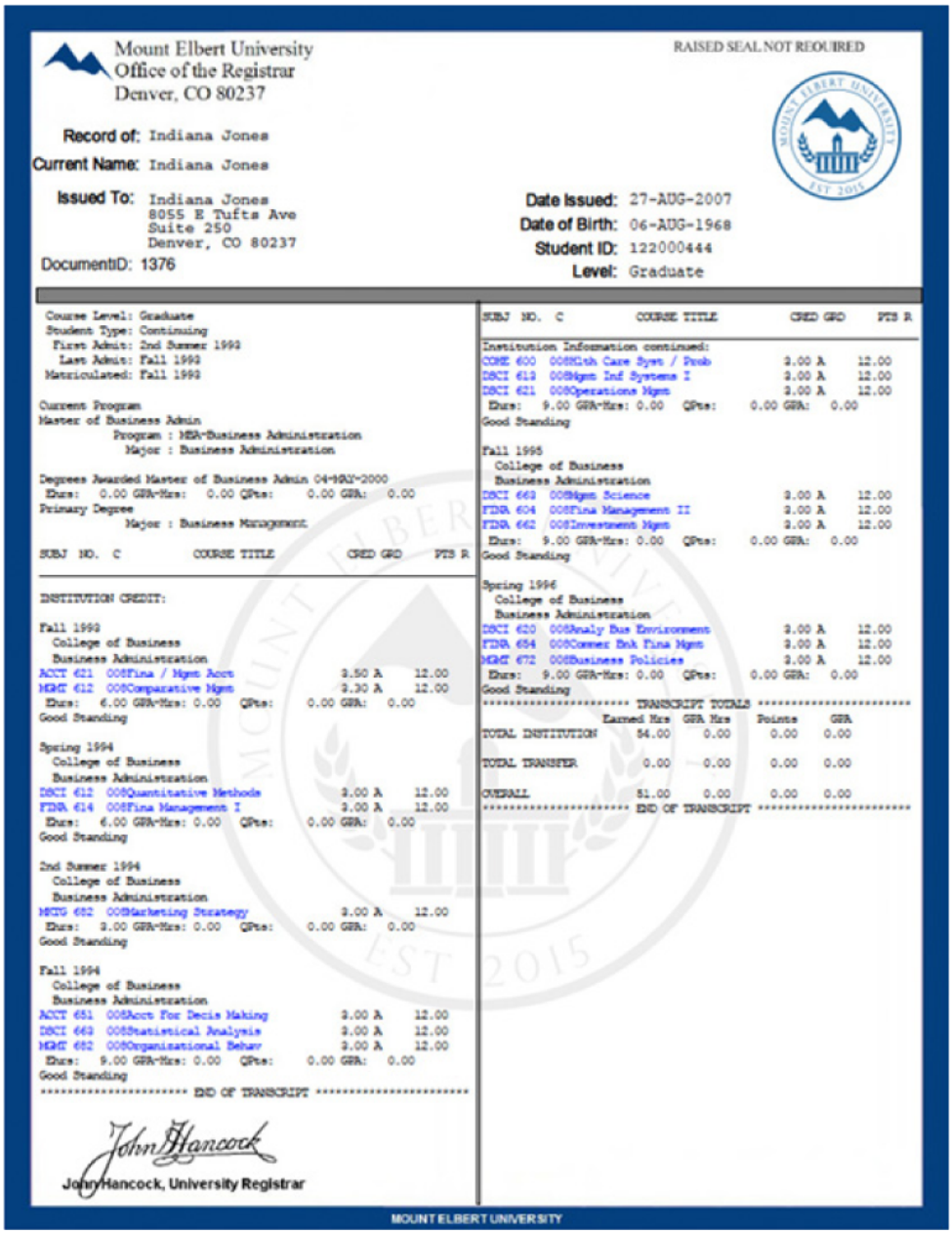
Michigan's Work-Ready Transcript
A statewide, comprehensive learner record of work-ready achievement for presenting meaningful credentials to employers and post-secondary institutions in support of competency-based, lifelong learning, and career-success.

1. **Demonstrate Models of Work-Ready Credentials on Existing eTranscript Systems**

2. **Establish a Comprehensive Learning Record (CLR) infrastructure so any program, school districts, and eTranscript service can deliver work-ready transcripts.**



Example 1: Enhanced College Transcript



Mount Elbert University
Office of the Registrar
Denver, CO 80237

RAISED SEAL NOT REQUIRED

Record of: Indiana Jones
Current Name: Indiana Jones

Issued To: Indiana Jones
8055 E Tufts Ave
Suite 250
Denver, CO 80237

DocumentID: 1376

Date Issued: 27-AUG-2007
Date of Birth: 06-AUG-1968
Student ID: 122000444
Level: Graduate

Course Level: Graduate
Student Type: Continuing
First Admit: 2nd Summer 1992
Last Admit: Fall 1993
Matriculated: Fall 1993

Current Program
Master of Business Admin
Program : MBA-Business Administration
Major : Business Administration

Degrees Awarded Master of Business Admin 04-MAY-2000
Hours: 0.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00
Primary Degree
Major : Business Management

SUBJ	NO.	C	COURSE TITLE	CRED	GRD	PTS	R
INSTITUTION CREDIT:							
Fall 1992							
College of Business							
Business Administration							
ACCT	621	008	Fina / Mgmt Acct	3.50	A	12.00	
MGMT	612	008	Comparative Mgmt	3.30	A	12.00	
Hours: 6.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							
Spring 1994							
College of Business							
Business Administration							
DSCI	612	008	Quantitative Methods	3.00	A	12.00	
FINA	614	008	Fina Management I	3.00	A	12.00	
Hours: 6.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							
2nd Summer 1994							
College of Business							
Business Administration							
MKTG	682	008	Marketing Strategy	3.00	A	12.00	
Hours: 3.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							
Fall 1994							
College of Business							
Business Administration							
ACCT	651	008	Acct For Decis Making	3.00	A	12.00	
DSCI	663	008	Statistical Analysis	3.00	A	12.00	
MGMT	682	008	Organizational Behav	3.00	A	12.00	
Hours: 9.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							
********** END OF TRANSCRIPT **********							

John Hancock, University Registrar

SUBJ	NO.	C	COURSE TITLE	CRED	GRD	PTS	R
Institution Information continued:							
COHE	600	008	Hlth Care Syst / Prob	3.00	A	12.00	
DSCI	613	008	Mgmt Inf Systems I	3.00	A	12.00	
DSCI	621	008	Operations Mgmt	3.00	A	12.00	
Hours: 9.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							
Fall 1995							
College of Business							
Business Administration							
DSCI	663	008	Mgmt Science	3.00	A	12.00	
FINA	604	008	Fina Management II	3.00	A	12.00	
FINA	662	008	Investment Mgmt	3.00	A	12.00	
Hours: 9.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							
Spring 1996							
College of Business							
Business Administration							
DSCI	620	008	Analy Bus Environment	3.00	A	12.00	
FINA	654	008	Commer Bnk Fina Mgmt	3.00	A	12.00	
MGMT	672	008	Business Policies	3.00	A	12.00	
Hours: 9.00 GPA-Hrs: 0.00 QPts: 0.00 GPA: 0.00							
Good Standing							

********** TRANSCRIPT TOTALS **********

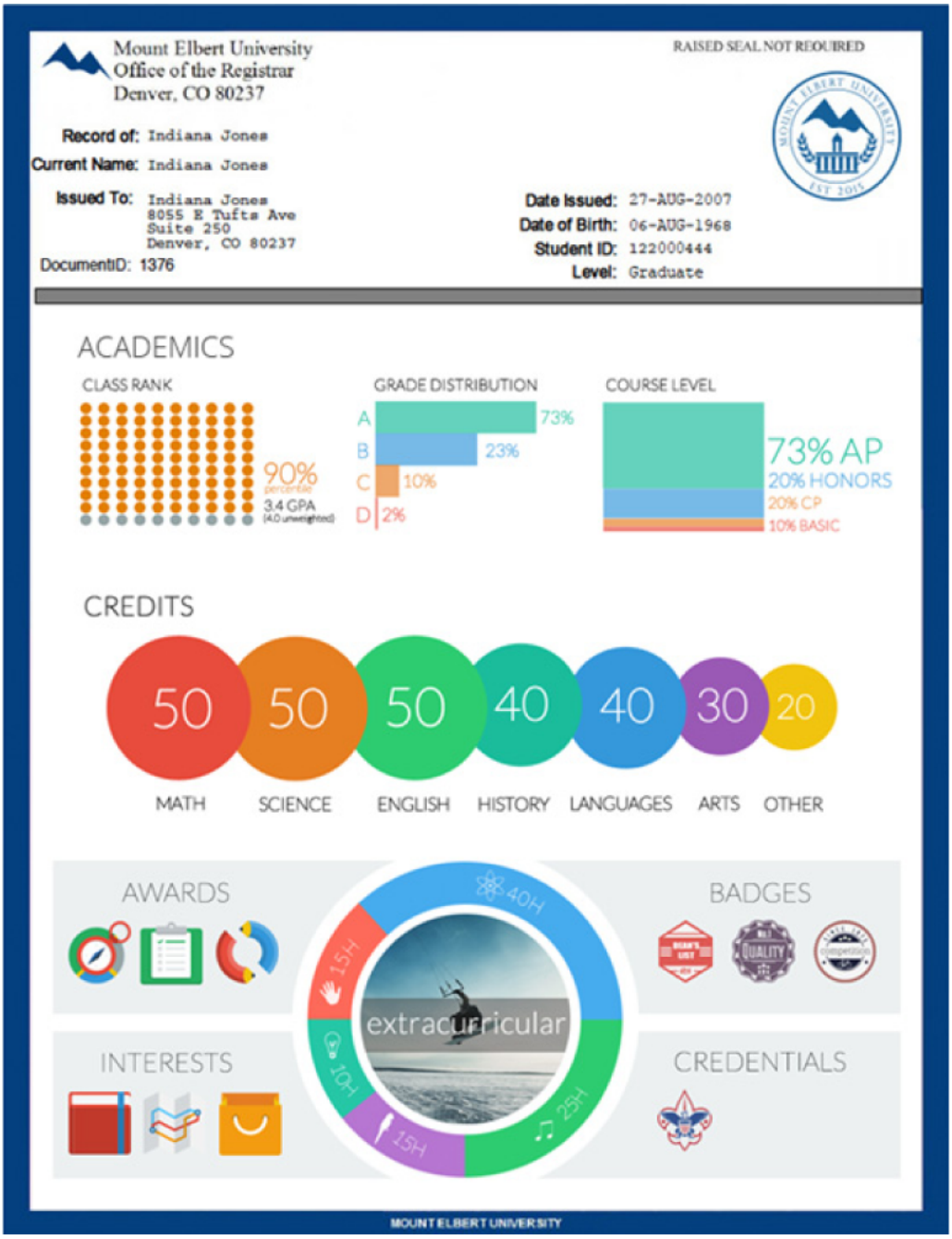
	Earned Hrs	GPA Hrs	Points	GPA
TOTAL INSTITUTION	54.00	0.00	0.00	0.00
TOTAL TRANSFER	0.00	0.00	0.00	0.00
OVERALL	51.00	0.00	0.00	0.00

********** END OF TRANSCRIPT **********

MOUNT ELBERT UNIVERSITY

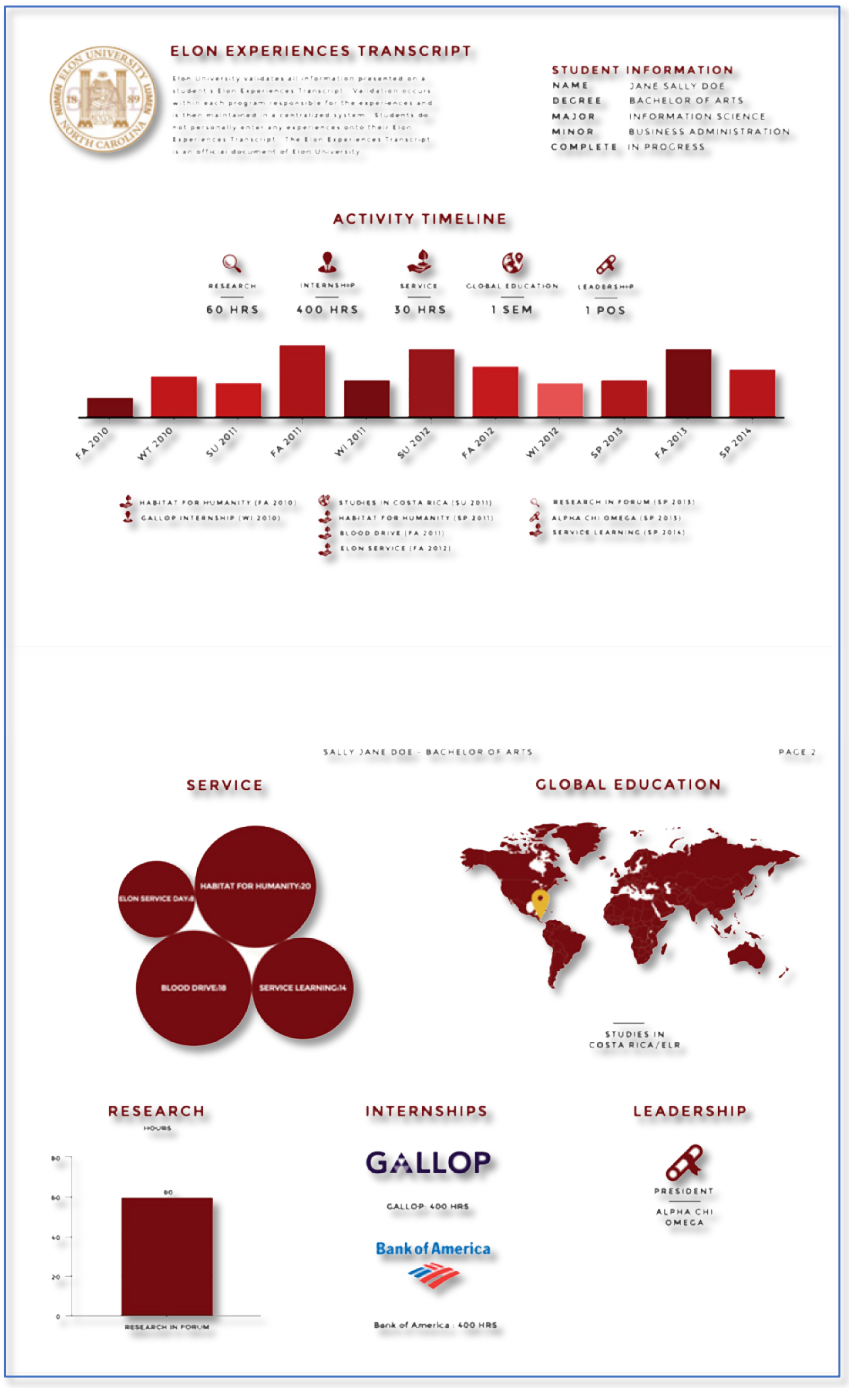
Traditional Look with Links to “What was Learned”

Example 2: Competency-Based Transcript



Reimaged & Audience-Specific Rendering

Example 3: Global Experiential Transcript



Visual & Experiential

Example 4: Talent 2025 – Employability Skills

Interview Checklist (Draft based on Metrics Reporting, Inc. JOFI Framework)				
New Name	Group	Competency Family	Competency Family Definition	Rev: 2016-11-30
Foundational Employability Skills				
	Verbal Communication	Listening	Listening to others to receive verbal information.	
		Speaking	Speaking to others to convey verbal information.	
	Written Communication	Reading	Reading documents, charts, graphs, tables, forms, prose, and continuous texts.	
		Writing	Writing to convey or document written information.	
	Reasoning and Math	Reasoning	Logical thinking that influences the use of information in problem solving.	
		Math	Quantitative thinking and use of mathematical methods.	
	Information	Information Skills	Obtaining, processing, analyzing, and documenting information.	
	Critical Thinking	Judgment & Decision Making	Critical thinking, problem solving, judgment and decision making.	
	Drive	Achievement Orientation	Personal goal setting, trying to succeed at those goals, and striving to be competent in own work.	
	Agreeableness	Interpersonal Orientation	Being pleasant, cooperative, sensitive to others, easy to get a long with, and having a preference for associating with other organizational members.	
	Emotional Stability	Adjustment	Maturity, poise, flexibility, and restraint to cope with pressure, stress, criticism, setbacks, personal and work-related problems.	
	Orderliness	Conscientiousness	Dependability, commitment to doing the job correctly and carefully, and being trustworthy, accountable, and attentive to details.	
Basic Employability Characteristics				
	Physical	Vision, Strength, Endurance, etc.	Physical abilities related to job performance (color vision for airline pilots, etc.)	
	Drugs	Drug Free	Drug free and able to pass a drug screen.	
	Law Abiding	Clean Criminal Record	No criminal record that prohibits employment (some health care jobs require state approval)	

Michigan's Children

Public policy in the best interest of children

Date: March 4, 2020
To: Michigan House Oversight Committee
From: Matt Gillard, President & CEO
matt@michiganschildren.org or (517) 485-3500
RE: Digital Credentialing

Thank you for the opportunity to provide testimony regarding the digital badging pilot. Michigan's Children is an independent nonprofit dedicated to advocating for public policies in the best interests of children and families, from cradle to career, especially those who face significant challenges. We determine our priorities based on the lived experiences of children, youth, families, and those who serve them, as well as research, data, and policy analysis. During our 2018 youth-led candidate forums, our candidates fielded questions from middle- and high-school aged youth as well as adult education students which touched on the need to prioritize connecting young people with a number of skill-building and expanded learning opportunities.

For young people who find themselves struggling to graduate in four years due to challenging life circumstances, including students experiencing poverty, foster care, homelessness, or juvenile justice, expanded learning opportunities through afterschool and summer learning programs take on critical importance in helping them build concrete skills, from teamwork to specific professional skills, while connecting them with college and career opportunities. Unfortunately, many of the valuable skills and experiences young people gain in these programs go unrecognized as evidence of their learning because they are not found on a transcript.

The IMS Global Digital Credentialing project will help recognize all kinds of learning, including technology skills, teamwork skills, and more, on the transcripts of students. The work being done to make these connections will help increase the employability of Michigan's growing workforce and help employers identify specific applicant skills. We believe that funding for this pilot is quite appropriate given the system-wide benefits, and potential benefits for educational equity, that this project will incur.

We thank you for the opportunity to share our testimony with your committee, and look forward to continuing to work with our elected officials to make public policy decisions in the best interests of children, youth, and families.

WAYNE STATE UNIVERSITY

C² Pipeline Pathways 2019/20

Engineering/Technology	Health & Social Services	Business	Science
General Session (http://www.exploring.org/activity-library/)			
• Engineering & Technology	• Health Care • Social Services	• Business	• Science
General Session SEL/Soft Skills/Life Skills For all Pathways (http://www.exploring.org/activity-library/)			
• Academic Skills • Character • College & Career Prep • Communication	• Computer Literacy • Customer Service • Ethics • Financial Literacy	• Higher Order Thinking • Leadership • Other • Positive Self-Concept	• Self-Control & Self-Motivation • Social Skills • Team Building
Digital Badges			
• 3D Printing & Design • Alternative Transportation (Need for Speed) • Audio Engineering • Bio Tech Med (Biomedical Engineering) • Rube Goldberg • Computer Science, Code & Beyond • Drones • Electrical Engineering • Explore It, Design It • Fashion Engineering • Green Architecture (earth Powered Engineering) • Podcasts • Audio Engineering • Girls Who Code • Independent Study*	• Anatomy in Clay • Bio Tech Med (Biomedical Engineering) • Forensic Science • Empowerment Improv • Human Genetic Variation • STEM Sleuths • STEM Debate • STEPS • Traumatic Brain Injury • Your Blood, My Blood • CPR / First Aid • Tissue Engineering • Science of Alcohol • Do You See What I See • Independent Study*	• Entrepreneurship • College & Finance • Empowerment Improv • Fashion Engineering • Math Carnival • Personal Finance Literacy • SAT Prep • Skills to Pay the Bills • STEM Chess • LinkedIn 101 • People Matter Economics • Independent Study*	• Anatomy in Clay • Basic Photography w/o Dark Room Access • Bio Tech Med (Biomedical Engineering) • Chemical Engineering • Forensic Science • Green Architecture (earth Powered Engineering) • Human Genetic Variation • STEM Busters / Myth Destroyers • STEM Debate • Bio-Technology • Green Engineering • Science of Alcohol • Afterschool Universe • Do You See What I See • Independent Study*

At least one activity within a theme / category must be done each day in General Session – Record On Activity Planning Sheet Daily

(*) There is no badge available for this. Independent Study consists of tutoring/homework assistance.

WAYNE STATE UNIVERSITY

C² Pipeline Pathways 2019/20

Engineering/Technology	Health & Social Services	Business	Science
STEM Lab Activities			
• Ballistics • Physical Properties of Glass • UROV • Forensic Fire Debris Analysis • 3-D Printing • Nuclear Science • Intro to Spectroscopy	• Sheep Brain Dissection • Centrifugation of Blood • Gel Electrophoresis • Lung Dissection • Kidney Dissection • Bio-Printing Biotechnology • Effects of Alcohol • Hair Analysis • Eye Dissection • Heart Dissection		• Drug Toxicology • Forensic Anthropology • Ballistics • Fingerprinting • Blood Splatter • Document Analysis • Forensics Using Simulated Blood • Sheep Brain Dissection • Enzymology • Centrifugation of Blood • Gel Electrophoresis • Physical Properties of Glass • Lung Dissection • Kidney Dissection • Bio-Printing Biotechnology • Forensic Fire Debris Analysis • Owl Pellet Dissection • Liquids and Solutions • Nuclear Science • Acids and Bases • Liquids Versus Solids

AdvancED® STEM CERTIFIED PROVIDER

Michigan 21st Century Community Learning Centers — Soaring Beyond Expectations

STEM ACCREDITED

WHAT ARE DIGITAL BADGES?

Digital Badges are a micro-credentialing tool that illustrates you have achieved a high level of proficiency in your chosen enrichment.

The badges will appear on your transcripts, allowing colleges and potential employers to review your accomplishments and acquired skills.

HOW LONG DOES IT TAKE?

Each badge has it's own set of activities, so time commitment varies. Generally, most badges require at least 10 weeks of participation. See your Site Coordinator for specific badge time requirements.

HOW DO I GET INVOLVED?

For the badges listed in this catalog, you must first be a registered C2 Pipeline student, enrolled in the Business Pathway.

Alert your Site Coordinator that you want to work towards the digital badge that interests you. You can only work on one digital badge in this pathway at a time.

WAYNE STATE UNIVERSITY

C2 Pipeline is a Wayne State University College of Nursing S.T.E.M. Accredited and Certified Program

Funded by a 21st CCLC Grant through the Michigan Department of Education

Soaring Beyond Expectations
21st Century Community Learning Centers

AdvancED STEM CERTIFIED

STEM ACCREDITED

CONTACT

Visit our home on the web at www.c2pipeline.wayne.edu

For questions about our program, call us at 313-577-1847 or email us c2pipeline@wayne.edu

C2 PIPELINE
WAYNE STATE UNIVERSITY

Business
Pathway

Wayne State University
C² Pipeline
Digital Badge Catalog

COLLEGE & FINANCE

Students are assisted in applying to colleges and writing essays for acceptance. They learn how to apply for scholarships, grants and loans. They will also complete the FAFSA

EMPOWERMENT IMPROV

Developed to give students an opportunity to address tough situations that they may face. Students are given scenarios and "act" them out using guidelines to make these sometimes uncomfortable topics safe and fun.

ENTREPRENEURISHIP

Students learn the basics of starting their own business. They will write a business plan, learn about financing and the work it takes to become their own boss.

FASHION ENGINEERING

Making technology and engineering accessible for those interested in art, crafting and visual design. Learn approaches to design and composition; consider geometric patterns; learn methodological procedures used in engineering, architecture and other skilled arts.

LINKEDIN 101

Students will understand how to complete a professional profile on Linkedin. Upload your resume, professional photo, complete the education section, create a summary, join groups and add connections to his/her network.

MATH CARNIVAL

Students participate in activities that help them to understand math concepts such as: probability, statistics, prime numbers, algebra and much more.

PEOPLE MATTER ECONOMICS

Students will understand how the economy relates to our lives and the difference between democracy as a political system and capitalism as an economic system.

PERSONAL FINANCE LITERACY

Students develop skills and strategies that promote personal and financial responsibility that relates to financial planning, saving, investments and charitable contributions.

SAT PREP

Students participate in practice activities order to better prepare them for the SAT test. They will explore the format of the test, learn test-taking tips, and have the opportunity to study SAT content.

SKILLS TO PAY THE BILLS

This enrichment consists of activities designed to get young people thinking about, practicing and discussing skills important for career and personal success. They will study many areas including communication.

STEM CHESS

Students will not only learn how to play the game of chess but also the mathematical strategies behind the game that will allow you to play like a pro! By the end of the enrichment, you will be prepared to battle other C2 Pipeline students with your mad chess skills.

WHAT ARE DIGITAL BADGES?

Digital Badges are a micro-credentialing tool that illustrates you have achieved a high level of proficiency in your chosen enrichment.

The badges will appear on your transcripts, allowing colleges and potential employers to review your accomplishments and acquired skills.

HOW LONG DOES IT TAKE?

Each badge has it's own set of activities, so time commitment varies. Generally, most badges require at least 10 weeks of participation. See your Site Coordinator for specific badge time requirements.

HOW DO I GET INVOLVED?

For the badges listed in this catalog, you must first be a registered C2 Pipeline student, enrolled in the Engineering-Technology Pathway.

Alert your Site Coordinator that you want to work towards the digital badge that interests you. You can only work on one digital badge in this pathway at a time.

WAYNE STATE UNIVERSITY

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C² PIPELINE
WAYNE STATE UNIVERSITY

Engineering Technology Pathway

Wayne State University

C² Pipeline

Digital Badge Catalog

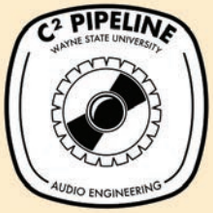
3D PRINTING & DESIGN

3D printing and modeling projects empower students to take chances and make mistakes. Students will be introduced to 3D printing and learn how to create their own print files.

ALTERNATIVE TRANSPORTATION

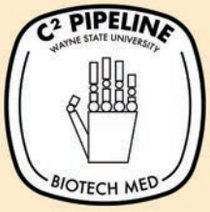
Students harness the power of the sun by learning about and designing their own solar cars. Students will also design and test several cars with various propulsion systems. They explore modifications that meet design objectives and improve performance.

AUDIO ENGNINEERING



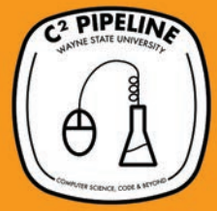
Students will learn the science of sound waves, use of industry standard recording equipment, experience with recording software and math involved with beats per minute. Students will also gain experience with technology used in the growing field of sound

BIO TECH MED



Students are introduces to ways in which engineers use science and math to create technology capable of seeing inside the human body—bio imaging. Students will also explore and design prosthetic limbs to improve the quality of life for

COMPUTER SCIENCE



Students will have the chance to practice programming skills, as well as learn about internet safety and HTML. By understanding how humans are able to write specific commands fro computers, students will get a chance to see how computer scientists create new programs and products.

DRONES

Students will learn how unmanned aerial vehicles are used for a variety of purposes. Learn the basic parts of a drone, mechanics and engineering. Interacting with real drones and comparing them to flying organisms, students will learn the basic principles of aerodynamics.

ELECTRICAL ENGINEERING

Electrical engineers worth with other professionals to create products that are safe, efficient and high-performing. This field can be challenging. The first step in this path is to develop an understanding of electricity and circuits.

EXPLORE IT, DESIGN IT

This challenge allows students to make things bigger and better. Students will explore and design paper bridges, a zip line, a device to protect and egg and much more!

FASHION ENGINEERING

Make technology and engineering fun and accessible for people with interests in art, crafting, and visual design. Students learn technical approaches to design and composition.

GIRLS WHO CODE

Girls Who Code helps girls work together to design and code prototypes and products that address the issues they care about. Girls Who Code believes that all girls have the power to learn and love Computer Science.

GREEN ARCHITECTURE

Students will investigate three types of heat transfer, explore rainwater harvesting systems and water purification. Students will investigate three types of heat transfer, explore rainwater harvesting systems and water purification systems.

PODCASTS

Allowing students to create their own podcast by teaching principles of sound, editing and podcast software. Students practice and improve their personal management skills by prioritizing their time and self -managing podcast projects.

YOUR BLOOD, MY BLOOD

Students will learn about the science of blood. They will participate in activities that study blood cells, the heart cycle, and even plan and facilitate a blood drive at their school.

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Health & Human Services Pathway

Wayne State University

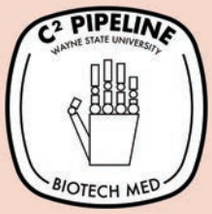
C² Pipeline

Digital Badge Catalog

ANATOMY IN CLAY

Students are introduced to the anatomy and chemistry of the human body. They will explore and construct each of the body systems by completing hands-on projects.

BIO TECH MED



Students are introduced to ways in which engineers use science and math to create technology capable of seeing inside the human body—bio imaging. Students will also explore and design prosthetic limbs to improve the quality of life for those with disabilities.

CPR/ FIRST AID

In this enrichment, student learn how to perform CPR and basic first aid techniques that could assist them in saving a life.

DO YOU SEE WHAT I SEE?

Students are engaged throughout this unit with various activities that explore optical illusions, color perception, color-blindness, and diversity of vision across species. After examining the physical properties of light and the structure of the function of the eye.

EMPOWERMENT IMPROV

Empowerment Improv was developed to give high school students an opportunity to address tough situations that they may be faced with while in a safe environment. Students are given scenarios and "act" them out using guidelines make these sometimes uncomfortable topics safe and fun.

FORENSIC SCIENCE

Students take on the role of crime scene investigators to solve a murder. They integrate math, science and language arts into the study of forensic science and associated health science careers such as pathology and medical examination.

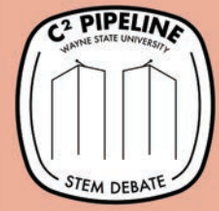
HUMAN GENETIC VARIATION

Students complete activities to study differences among humans. They will also learn how geneticist develop practices that can aid the study of human diseases, by examining the relationship between basic science and personal and public health.

SCIENCE OF ALCOHOL

Students will understand how the use of alcohol effects their brains, organs and the risks associated with its use. By analyzing its physical and chemical properties, students will determine the short -term and long-term effects of alcohol on body systems.

STEM DEBATE



Students learn the techniques of proper debate including the true meaning of arguments, cross examination, evidence, fallacy, refutation, resolution and warrant. They learn all of this using STEM topics.

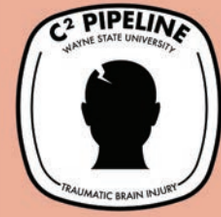
STEM SLEUTHS

Students who participate in this enrichment complete hands-on activities to learn about their immune system and how it protects them from infections disease.

STEPS

In this enrichment, students develop skills and knowledge in physical education and nutrition. Students enjoy fun and interactive learning experiences using a variety of methods such as: games, case scenarios, cooking demonstrations, and fitness challenges.

TRAUMATIC BRAIN INJURY



Students will engage in activities that will give them a detailed look into the anatomy of the brain and how it is effected by an injury. Special attention is given to sports related injuries. Students will dissect a sheep brain.

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Science

Pathway

Wayne State University

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Digital Badge Catalog

AFTERSCHOOL UNIVERSE

Promote the interest of space, the universe and beyond the solar system by examining the astronomy principles such as the life of stars, cosmic connections to the elements, galaxies, black holes and modeling the universe.

ANATOMY IN CLAY

Students are introduced to the anatomy and chemistry of the human body. They will explore and construct each of the body systems by completing hands-on projects that depict each of the complex systems.

BASIC PHOTOGRAPHY

Students at all levels of experience will learn about the many possibilities and applications of photography. They will learn the history, technique, aesthetics and practice of photography using noon -darkroom activities to impart a sense of process.

BIO TECH MED

Students are introduces to ways in which engineers use science and math to create technology capable of seeing inside the human body—bio imaging. Students will also explore and design prosthetic limbs to improve the quality of life for those with disabilities.

BIO TECHNOLOGY

Using a 3D bio-printer, students will learn how this state-of-the-art technology is currently being used in industries such as biomedical, pharmaceutical and green technology. Students will go beyond reading about how scientists use bio-printers to create human stem cells to study disease and human issues such as

CHEMICAL ENGINEERING

Students become chemical engineers by manipulating materials and chemicals in order to create new products that improve our lives and the world. Learn how chemical engineers have improved our lives with products like fuel, medicine, paper and plastic.

FORENSIC SCIENCE

Students take on the role of crime scene investigators to solve a murder. They will integrate math, science, and language arts into the study of forensic science and associated health science careers such as pathology, forensic science, and medical examination.

GREEN ARCHITECTURE

This enrichment introduces youth to the power of solar energy through the design of a solar oven. Youth will investigate the three types of heat transfer—radiation, conduction, and convection—and learn how they work.

HUMAN GENETIC VARIATION

Students complete activities to study differences among humans. They will also learn how geneticists develop practices that can aid in the study of human diseases.

SCIENCE OF ALCOHOL

Students will understand how the use of alcohol effects their brains, organs, and the risks associated with its use.

STEM BUSTERS

This enrichment turns a number of popular rumors into science experiments. You will learn how to question the world around you using the scientific method, mathematical analysis and the spirit of inquiry!

STEM DEBATE

Students learn the techniques of proper debate including the true meaning of arguments, cross examination, evidence, fallacy, refutation, resolution and warrant. The learn all of this using topics that relate to STEM topics such as GMOs, human cloning, and more.

Bryce Neal

WATERFORD KETTERING HIGH SCHOOL - Michigan

Class of 2020

Memberships, Extracurricular Activities, and Hobbies

Voice of the Marching Captains | *Other* | 2019 - Present

Announcer and voice for the Waterford Kettering Marching Band

Link Crew Member | *Other* | Sep 2018 - Jun 2020

Oakland County Sheriff Cadet Program | *Other* | 2017 - Present

Waterford Kettering DECA Program | *Other* | 2017 - Present

Varsity Golf Team | *Other* | 2016 - 2020

Waterford Kettering Student Council | *Other* | 2016 - 2017

Waterford Kettering Volunteer | *Other* | 2013 - 2015

From 6th to 8th grade volunteered at Waterford Kettering at all sporting events for set up and tear down

Boy Scouts of America Exploring Program | *Organization or Club*

Work Experience and Responsibilities

Lunghamer Cheverolet | *Porter* | May 2019 - Sep 2019

Worked as a car porter for the service department

Waterford Kettering High School | *High School Athletic Announcer* | Sep 2016 - Present

Am the Sports Announcer at all home games at Waterford Kettering high school for football, basketball, soccer and any other events which an announcer is needed

Accomplishments

Decca State Competition - Top 5 | *Award or Honor* | Issued By: DECA | Issue Date: Mar 2020

Waterford School District "Select 50" | *Award or Honor* | Issued By: Waterford Kettering High School | Issue Date: Mar 2020

Captain Varsity Golf Team | *Award or Honor* | Issue Date: 2020

DAR Good Citizen Award and Scholarship | *Award or Honor* | Issued By: Daughters of the American Revolution | Issue Date: Dec 2019

DECA Overall Project Finalist Winner | *Award or Honor* | Issued By: DECA | Issue Date: Jun 2019

Executive Producer of School's Broadcasting Program | *Award or Honor* | Issue Date: Sep 2018

Education

Waterford Kettering High School | Expected Graduation: June 2020
Waterford, MI / United States of America

Test Scores

SAT Latest Score: 1010

- Math: 530
- Reading And Writing: 480

WORKKEYS Latest Score: -

- Applied Mathematics: 5
- Workplace Observation: 5
- Reading For Information: 5

Badges

CPR/First Aid | *C2 Pipeline* | Awarded: Oct 2019

Anatomy in Clay | *C2 Pipeline* | Awarded: Mar 2020

Bio Tech Med (Biomedical Engineering) | *C2 Pipeline* | Awarded: Mar 2020

Youth Council Leadership Badge | *C2 Pipeline* | Awarded: Mar 2020

Community Apple Days 2019 | Awarded: Mar 2020

3D Printing and Design | *C2 Pipeline* | Awarded: Mar 2020

2019 Wayne State Warriors Summer Residential Program | *IPE Camp* | Awarded: Mar 2020

Lights On Afterschool 2019 | Awarded: Mar 2020

Bio Technology | *C2 Pipeline* | Awarded: Mar 2020

Chemical Engineering | *C2 Pipeline* | Awarded: Mar 2020

Computer Science, Code & Beyond | *C2 Pipeline* | Awarded: Mar 2020

Career Interests

- **Broadcast and Sound Engineering Technicians**
- **Police Officers**

Location Preferences

- **Michigan**