

# Couragion Helps Community College Students Discover STEM Careers Fueled by Their Passions



## Meaningful Career Exploration Starts with Couragion

Susan Dentel teaches anatomy and physiology at Washtenaw Community College in Ann Arbor Michigan. She has been involved in STEM-related activities for a large portion of her career, and recently did a fellowship at the University of Michigan which resulted in two National Science Foundation grants for Washtenaw Community College (WCC).

Back in 2018, Susan was looking for something that would allow her students to explore careers in a meaningful way. Most community college students are still trying to discover what career they want to pursue and finding relevant pathways is just as important as being able to eliminate careers and interests that are not a good fit.

“It helps students to say, ‘maybe I’m not interested in that’... they go and look at other things. I think deciding if they like something or don’t like something...is important too. They’ll be all on fire about something but then they may shadow somebody and then decide ‘No, I’m not really interested.’ That’s valuable too.” --Susan Dentel, Dale Carnell Distinguished Faculty, Washtenaw Community College

Students need workable and effective guidance when deciding on a career, in order to choose a career that they genuinely connect with and see a future in. As they investigate all the possibilities, faithfully prospecting for the nugget of gold that will unlock their future, it’s important that they receive the tools necessary to plan and execute class pathways that make the most of their college experience and lead them to a future they consider successful. Couragion is the pan that reveals gold -- a STEM career backed by true passion.



## Washtenaw Community College Leads the Way in STEM Education

Washtenaw Community College is the #2 Best Community College in Michigan, a ranking based on rigorous analysis of exploring academic, financial and student life data from the U.S. Department of Education in conjunction with millions of reviews from students and alumni. WCC is the #1 Two-Year Online College in Michigan ranked by The Community for Accredited Online Schools, and the #1 Community College Transfer to the University of Michigan. WCC has an industry leading STEM Scholars Program which helps ensure successful university transfers for students in STEM fields, creating a strong pathway into the STEM workforce.

Since the STEM Scholars Program began in 2018, it has expanded to 100 students. This promising growth has been accompanied by awards such as the Dale Carnell Distinguished Faculty Award and in 2019, the LAND Institutional Excellence Award, recognizing the work that the college is doing in STEM education. In October 2021, The National Science Foundation awarded a \$3M grant to WCC and five other colleges and universities through MI-LASMP (Michigan Louis Stokes Alliance for Minority Participation) to increase equity in STEM fields. During the program, students are assigned a faculty or staff mentor, they attend weekly lunch and learn sessions, and learn life skills. There is a strong research component to this program, which helps students get internships, and focuses on experiential learning. Washtenaw allocates grant money for scholarships that allow economically disadvantaged students to participate. Students in this program have dedicated advisors and success coaches.

Couragion is an integral part of WCC's STEM Scholars Program, functioning as a valuable tool for students to discover career options that they want to pursue, to focus their coursework and inform their plan for continuing education.

With the founding of the STEM Scholars Program, and the subsequent integration and implementation of Couragion, Susan Dentel and WCC saw a way to engage students in their search for a STEM career, and to provide them with a way to plan for that future.

## Banish Uncertainty in the Search for a STEM Career

Susan Dentel knew that the students in the STEM Scholars Program needed a way to find career and coursework pathways that were relevant to their interests and that represented a sustainable, successful career that has longevity.

Throughout the Couragion experience, end users share their values, career interests, and preferences. This important data feeds into a predictive algorithm that gradually refines as the user completes Quests. As they do so, students get valuable information about careers that align with their purpose and values, and they can further clarify their career aspirations.

Finding the right career can be an overwhelming process. Often, even at the college level, students are still trying to figure out what they want to do, and what they don't want to do. This was the case for one student who commented at the end of a career quest: "I like parts of the job; however, I feel I could put more heart into an analytical job in a different direction perhaps." – White Female Student, speaking of the Couragion Energy Economist Role Model

Sometimes what students think they want in a career doesn't align with their interests, they don't know what their options are, or what skills they'll need or coursework they will need to pursue to find success. One student finished a Couragion Quest and discovered something important: "I would rather apply that knowledge to space exploration or marine biology, deep sea research, things like that." – African American/Black Female Student, speaking about the Robotics & Computer Vision Engineer

## Results that Illuminate the Path Forward

Career capital is an understanding of what is needed to develop a career. Couragion provides the wherewithal to facilitate career capital through a comprehensive framework which provides the why (motivation and purpose), how (skills and knowledge), and whom (relationships and networks) required for career development.<sup>1</sup> The platform offers students interactive experiences in the form of Quests that introduce students to STEM careers through firsthand videos of diverse role models and accompanying self-reflection quizzes. Quests help students understand which careers best align to their interests, values, and desired work characteristics and they provide insight into the working lives of real professionals.



By using Couragion, WCC students have found careers they did not even know existed, where interests and industries converge, and they find that which fuels their passions.

The most selected career quests at WCC are Biomedical Engineer, Zookeeper, Climate Dynamics Researcher, Cancer Researcher, and Sustainability Coordinator. For one STEM scholar, this meant finding a career that encompassed her love of informatics, computer science and nursing. She is now pursuing a master's degree at the University of Michigan in Medical Informatics.

According to Couragion data collected from the 2021 WCC school year, students record an 85% average intent to pursue a STEM career, and among students who have completed at least one Couragion Quest, more than 87% recorded that they had found at least one best fit career match. Among the students who have completed four Career Quests, 100% plan to sign up for a new STEM class or activity.

By cultivating individuals' interests, engaging users with curated, personalized content, and mapping relevant coursework to career pathways, Couragion guides community college students while they mine for career possibilities. Washtenaw Community College places a high importance on STEM, as well as equity and access for these programs. This is evidenced by the STEM Scholars Program and the grants and institutional awards they have been given.



## Strike Gold with Couragion on a Community College Career Pathway

Many of today's reforms in the public two-year sector aim to better connect student's academic achievement and goals with careers and jobs. These alignment-based reforms are for colleges to re-orient their services and programs to offer students an opportunity to increase the coherence between their educational goals and their desired careers (D'Amico et.al, 2019). Couragion creates a system that draws people in, attracting and retaining students to the community college pathway.

Recently, aggregate data collected from Couragion users in 2021 and 2022, indicated that female representation increased by over nine percentage points (49.70% to 58.82%), and from 2015 to 2022, Native and Indigenous students using Couragion showed up to 2.6 times increased intent to pursue a STEM-related career than their counterparts after completing eight quests. Additionally, Couragion data shows that from 2015 to 2022, intent to pursue a STEM-related career after eight quests was nearly 70% higher for females than males when compared to initial intent after registration.

Couragion provides an inclusive, effective way for students to build career capital, and find the career that they are truly passionate about. It helps to whittle a world of mineable options down to a manageable chunk of gold that aligns with student values, goals and interests.

For more information on Couragion, or to schedule a demo for your community college, please contact: [info@couragion.com](mailto:info@couragion.com)

1) 'An Exploration of College and Career Alignment for Community Colleges' by Mark M. D'Amico, Manuel S. Gonzalez Canch, Cecilia Rios-Aguilar, & Spencer Salas (2019)