



STEM Regional Collaboratives



CUYAHOGA COMMUNITY COLLEGE AND OHIO ASSOCIATION OF COMMUNITY COLLEGES

Initial STEM Pathways

Healthcare and Advanced Manufacturing

Proposed Reforms (from proposal)

- Developing specific STEM pathways with clearly identified steps for completion while systematically reducing the choices students need to make in course selection
- Studying options for offering block scheduling of courses for enrolled students
- Preparing faculty to design the sequences within the pathways model.
- Developing intake processes that include career advising that reflect a thorough analysis of regional labor market information
- Providing a specific student orientation for each of the middle-STEM pathways that are developed
- Developing or enhancing student advising programs and mentoring initiatives
- Ensuring that STEM pathways are connected to employers, the Workforce Investment Board, college support services, and appropriate community-based organizations
- Augmenting the College's Institutional Research capacity to ensure ongoing monitoring of student progress and outcomes



STEM Regional Collaboratives



NORWALK COMMUNITY COLLEGE AND CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

Initial STEM Pathways

Allied Health, Computer Science/ Bioinformatics, and Environmental Science

Proposed Reforms (from proposal)

- Pre College STEM Introduction (Bridge Program) with a focus on math
- First Year at NCC: Each student in each track of the proposed programs: Allied Health, Computer Science / Bioinformatics, and Environmental Science will be made aware of the prescribed coursework and timeline of completion in “ideal” circumstances.
 - **Advising:** Student Services will employ up-to-date labor market information for students as they begin the process, explain clearly the program of study as well as any and pre-requisites that will need to be addressed. The student will then be **assigned an advisor** with whom they will have to meet with over the duration of their course work to graduation.
 - **Structured Pathways:** STEM pathways are course work dependent and educating the student to understand the “**stacked and latticed**” nature of the course work will be done. The goal will be to concentrate the attention to completing the course work as “grouped” as possible to insure understanding and applicability.
 - **Curriculum development:** Faculty will be recruited to develop booster modules for use in STEM classes. We will seek out faculty with actual employment in STEM based industry outside of education to aid in this task. Course boosters will be based on **contextualized learning** and will emphasize realistic scenarios. Professional development will be conducted by curriculum developers to show other faculty how to use the new curriculum.
 - Potential **employers, alumni and Workforce Investment Board (WIB) personnel** will evaluate course work. The goal will be to help identify what populations could benefit from these efforts but also identify glaring inadequacies.



STEM Regional Collaboratives



MIAMI DADE COLLEGE AND THE FLORIDA COLLEGE SYSTEM

Initial STEM Pathways

Psychiatric Technician, Medical Coder/Billing Specialist, Health Informatics Specialist

Proposed Reforms (from proposal)

- Create a structured intake process that includes mandatory orientation, assigned advisors, and diagnostic and holistic assessments.
- Develop and utilize structured curriculum plans with sequential coursework and focused course choices at all levels of instruction to ensure that students know the requirements to succeed and enter programs of study early in their college careers.
- Increase forward momentum, especially in developmental education and English for Academic Purposes (EAP), by closing skill gaps with customized, mastery-based instruction; concurrent enrollment; and decreased noncredit courses to minimize the time required to be college-ready.
- Increase transition assistance from developmental education and EAP into college-level programs of study and from there into transfer and/or career outcomes.
- Integrate academic and student support programs aligned with learning outcomes.
- Increase student engagement through participation in communities of interest.