

Quantitative Biology at Community Colleges: Building a Community of Biology and Math Faculty to Develop and Disseminate Open Educational Resources



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Why QB@CC?

There are 1051 community colleges in the United States, with 7 million students (58% of the total) enrolled in credit courses. A little over two-thirds (67%) of the entering community colleges require some remedial courses (AACC, 2019).

Corwin et al., 2019 interviewed 20 biology faculty from community colleges, to identify the barriers and affordances to teaching quantitative skills in biology courses. Some common barriers identified were:

- Perceptions of student deficits
- Time constraints to fit in additional materials (quantitative components) to the existing curriculum
- Gaps in professional knowledge of the instructors

What is QB@CC?

Quantitative Biology at Community Colleges (QB@CC) brings together community college faculty teaching biology and mathematics to integrate quantitative concepts and skills in life science courses.

Goals:

- Build a grassroots network of CC biology, mathematics/statistics faculty.
- Generate Open Educational Resources (OERs) to teach quantitative skills in community college biology courses.
- Provide professional development (PD) to improve quantitative biology instruction.
- Disseminate these materials and practices widely to CC faculty.

What does QB@CC do?

- Provides a community for interdisciplinary collaboration.
- Generates Open Education Resources (OERs) appropriate for lower division undergraduate biology courses.
- Promotes the adoption and adaptation of OERs.
- Supports faculty teaching quantitative skills through PD opportunities.

Why participate in QB@CC?

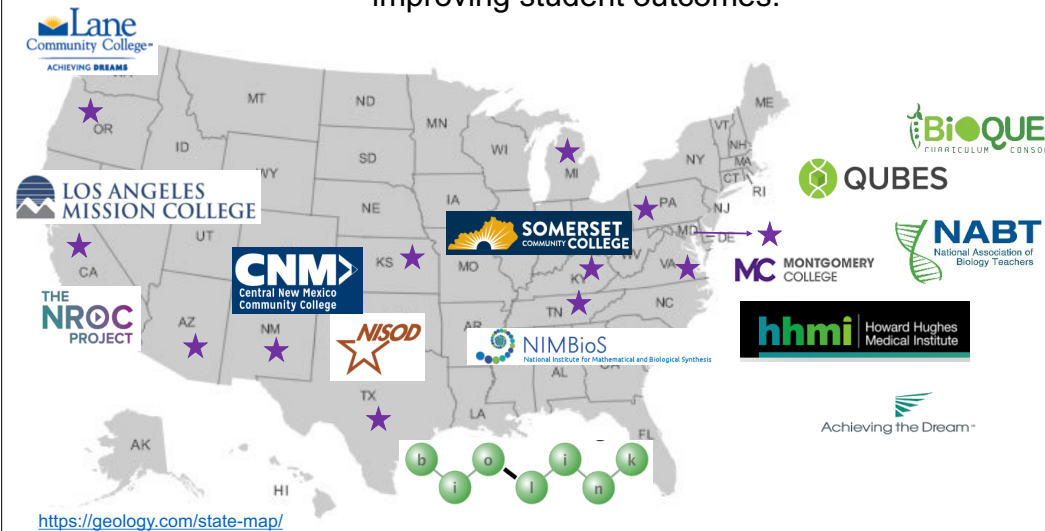
- Access to resources for teaching quantitative skills
- Recognition of authorship of OERs
- Participation in a community of peers
- Professional development opportunities

Interested in this project? Please join:

<https://qubeshub.org/community/groups/qbcc> to receive updates on upcoming events, new resources to participate in community discussions and to share resources with colleagues.

Who is QB@CC?

QB@CC partners: two year colleges and a variety of groups dedicated to improving student outcomes.



The QB@CC Steering Committee and Advisory Board

John Starnes, Southcentral Kentucky CC
 Heather Seitz, Johnson County CC
 Christianne Nieuwsma, South Mountain CC
 Jillian Miller, Roane State CC
 Joseph Esquibel, Lansing CC
 Jennifer Buntz, Central New Mexico CC

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 Lou Gross, University of Tennessee

More about QB@CC

- Spring 2020: First cohort launches with a focus on developing OERs
- Annual Offerings:
 - Summer Workshop
 - Each Fall and Spring: OER development groups and PD opportunities
- Ongoing evaluation of community needs
- Sharing lessons learned and resources with 4Y college and HS faculty

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References

1. <https://www.aacc.nche.edu/research-trends/fast-facts/>
2. Corwin LA, Kiser S, LoRe SM, Miller JM, Aikens ML, 2019. Community College Instructors' Perceptions of Constraints and Affordances Related to Teaching Quantitative Biology Skills and Concepts. CBE—Life Sciences Education, 18 ar64: 1-13. DOI: 10.1187/cbe.19-01-0003



This material is based upon work supported by the National Science Foundation under Grant No. 1919613. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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