

Interdisciplinary Teaching and Program Development

Teaching Remotely: Shared Experiences

Summary of virtual panel event held on May 19th, 2021
[Link to video]



Interdisciplinary teaching encourages instructors to consider new forms of collaboration across and through traditional disciplines, especially with the added complexities of our remote teaching and learning environment.

The recent Strategic Alignment Fund focus on interdisciplinary program development, presents an opportunity for faculty members to be involved in the creation new programs and to explore the collaborative and innovative opportunities interdisciplinary programs present.

Panelists:

Chad Harvey, Associate Professor, Integrated Science Program.

Kate Whalen, Senior Manager, Academic Sustainability Programs.

Emad Mohammad, Director, Integrated Business and Humanities Program.

Colin McDonald, Associate Director, Integrated Biomedical Engineering & Health Sciences Program.

Panel Questions:

1. How does teaching in an interdisciplinary program differ from teaching within one discipline?
2. In what ways has your interdisciplinary teaching changed as a result of teaching in an online learning environment?
3. Are there particular challenges you have faced, and how have you overcome those challenges?
4. When you developed an interdisciplinary program, what do you do that worked well? What might you have done differently?
5. What advice would you give to colleague who is considering developing an interdisciplinary program?

3 Key Takeaways From The Panel:

1. Teaching in an interdisciplinary program requires a lot more communication with partners, collaborators, and students. Being aware of the content, assessments, and components of courses within the program allow you to integrate and relate the content in a specific course to the program as a whole. [14:48 – 17:10]
2. When designing an interdisciplinary program, try taking a backwards approach. This design allows you to consider what you want graduates to be like, and determine the skills, experiences, and education they need to attain this end result. [20:51 – 21:28]
3. Educational scaffolding can help students tackle new challenges that they may not be able to currently reach on their own. Supporting students in this way is important in teaching in general, but especially in interdisciplinary programs where students are faced with complex challenges. [33:58 – 34:09]



Some Key Takeaways From Each Panelist:

Chad Harvey, Associate Professor, Integrated Science Program.

- Try to cut back on content as much as possible and focus instead on skill development and learning which will give students the ability to learn, digest, and apply the material. [13:52 – 14:43]
- Co-teaching can be very powerful and engaging for students in an interdisciplinary program or course. Two instructors lead the same lecture at the same time, allowing students to participate in a dynamic learning environment. [21:48 – 24:06]
- COVID-19 has had an impact on the hands-on learning that was experienced in labs. Online modules and live labs using cameras in the physical lab spaces on campus have been very well received by students. [24: 11 – 25:27]

Kate Whalen, Senior Manager, Academic Sustainability Programs.

- Community based and experiential learning engages students in the authentic challenges that requires them to work together and with their communities. [28:29 – 28: 58]
- Educational scaffolding is an important part of each of the courses. In earlier years, the level of community-based and experiential learning is more observational based. In upper years, students work in interdisciplinary teams to address real-world sustainability challenges with a member of the McMaster or Hamilton community. [29:21 – 30:16]
- In addition to educational scaffolding, it is also important to check in with students regularly and foster a positive and safe learning environment for all. [33:34 – 40:32]

Emad Mohammad, Director, Integrated Business and Humanities Program.

- Working with and consulting colleagues is very valuable in developing and receiving support on the creation of an interdisciplinary program. Reaching out to program directors of other interdisciplinary programs, as well as the MacPherson Institute will provide insight into the design of the program and help establish learning outcomes and objectives. [45:08 – 48:48]
- Think about the demand for the program and consider why someone would want to integrate certain areas. Getting support from your dean and developing clear program objectives are important to get support from all levels when proposing the idea. [49:27 – 51:12]
- There will be many ups and downs along the way, so it is important to be resilient and not give up. The end result will be rewarding for you, students, and the university as a whole. [52:38 – 53:27].

Colin McDonald, Associate Director, Integrated Biomedical Engineering & Health Sciences Program.

- When developing an interdisciplinary program, it can be very helpful to look into what other schools are doing and what key skills they focus on providing students with. Then, determine and leverage McMaster's strengths and include them in the program. [59:01 – 1:00:49]
- This specific program was designed to expose students to the two disciplines in a general first year program, and then allow them to make an informed decision and pursue either degree while maintaining interdisciplinary elements. [1:01:38 – 1:03:06]

Referenced Resources:

[Teaching and Learning Strategy](#)