

Pre-assessment Survey for GCAT Synthetic Biology

Thank you for volunteering this information for the meeting report being conducted by the participants of the First Faculty Training in Synthetic Biology supported by GCAT.

Institution Background Information

Institution Name: _____

Which of the following best describes your institution (circle one):

R1, Liberal Arts, Masters, Other_____

Approximate number of students across the whole institution:_____

Approximate % of undergraduate science/mathematics majors:_____

Approximately what % of your students are undergraduates?:_____

To what degree do you feel that your institution actively supports its undergraduates undertaking and completing independent research projects?

1 2 3 4 5
no support-----outstanding support

Briefly explain the support your institution provides for these efforts. Include both financial and academic support options:

Personal Background Information

General Area of Expertise (please circle all that apply):

Biology Chemistry Computer Science Physics Engineering Biochemistry
Mathematics/Statistics

Specific Area of Expertise:_____

How many classes do you teach per semester, including lab sections? _____

What classes do you currently teach?

For each of the following, please give the number of years of experience performing the indicated task and rate your perceived competency level for each:

1 – None, 2 – Beginner, 3 – Intermediate/Average, 4 – Advanced, 5 – Expert.

Task	Number of Years Experience	Perceived Competency Level (please circle one)				
Working (i.e. as a technician) in a laboratory environment.		1	2	3	4	5
Using standard laboratory equipment (i.e. measuring devices (scales, etc.), pipettes, etc.)		1	2	3	4	5
Working with DNA		1	2	3	4	5
Designing an experiment		1	2	3	4	5
Data analysis		1	2	3	4	5
Teaching		1	2	3	4	5
Collaborating out of your field		1	2	3	4	5
Others:.....		1	2	3	4	5

Briefly describe how you have previously engaged in cross-disciplinary collaboration for your personal research or the research of your undergraduate students. What was the nature of the collaboration and what were the ultimate goals?

Perceptions of Synthetic Biology/Personal Goals

1.) What is your current understanding of synthetic biology? What, if anything, makes synthetic biology a unique field?

2.) How comfortable do you currently feel with teaching synthetic biology to undergraduates?

1 2 3 4 5
 Not at all-----Totally

Briefly explain:

3.) How comfortable do you currently feel with conducting synthetic biology-based research projects with undergraduates?

1 2 3 4 5
 Not at all-----Totally

Briefly explain:

4.) Do you currently feel your undergraduate students are comfortable with the concepts of synthetic biology?

1 2 3 4 5
Not at all-----Totally

Briefly explain:

5.) Do you think that your undergraduate students will be able to master the concepts of synthetic biology? In your opinion, what would be the best ways for your students to obtain mastery of this subject?

6.) How comfortable do you currently feel with working with individuals outside of your discipline in collaborative research?

1 2 3 4 5
Not at all-----Totally

Briefly explain:

7.) How comfortable do you feel in your ability to establish cross-disciplinary collaborations?

1 2 3 4 5
Not at all-----Totally

Briefly explain:

8.) What resources do you feel will be necessary for you to successfully engage in synthetic biology work? Include all possible resources such as financial support, academic support, GCAT support, etc.

9.) How do you envision utilizing synthetic biology in your student-led research? How will this work ultimately be presented?

10.) How much time and effort do you feel you will be able to put into developing the ideas and materials necessary to successfully conduct synthetic biology work with your undergraduates?

1 2 3 4 5

Very little-----as much as it takes

11.) Would you feel comfortable with this preparation effort given your current teaching load?

1 2 3 4 5
Not at all-----Totally

Briefly explain:

12.) Briefly describe what you see as the primary benefits of synthetic biology for your undergraduate students.

13.) What are your personal expectations for this workshop?

14.) What are your reservations about this workshop?

Thank you!