

MOLECULAR BIOTECHNOLOGY TRAINING PROGRAM (MBTP) REQUIREMENTS – GAANN

The GAANN Biotech Fellowship support for students is funded by the United States Department of Education. The MBTP Program, a multi-disciplinary pre-doctoral research training program was established with the goal of enhancing students' research and training in molecular biotechnology beyond the exposure provided by their doctoral programs. The Fellowship is intended for graduate students who intend to become university teachers and/or researchers.

Fellows are selected for a two-year period, based on academic performance, after nomination by the student's faculty advisor, selection by the MBTP Executive Committee, and approval by the Graduate School. Funding for the second year is contingent upon satisfactory progress and MBTP participation during the first year of the fellowship and the availability of funds.

Coursework

- Completion of a **Biotechnology Minor** (included in student POW)
 - BIT 510, Core Technologies in Molecular and Cellular Biology
 - 2 advanced BIT laboratory module courses in specific and current technologies
- OR
- 3 advanced BIT laboratory module courses if placing out of BIT 510.
- BIT 812 Capstone Biotechnology **Spring 2024**
- BIT 811 Professional Development (or equivalent) **Fall 2024**
- BIT 815 Research Ethics (or equivalent) **Fall 2025**
- BIT 815 Rigor & Reproducibility in Research **Spring 2025**

Service Project

Trainees will propose and complete a service project that is intended to foster the development of biotechnology by encouraging this career route among K-12 or undergraduate students.

Professional Development

Trainees will join faculty in attending an annual Molecular Biotechnology Research Symposium, typically in October or November. These events will provide opportunities for Trainees to hear from and interact with distinguished researchers in the academic and industrial biotechnology community. Poster presentations are required at each event, and oral presentations by fellows are encouraged at least once, either during the support period or immediately thereafter. Trainees are encouraged to interact with the MBTP throughout their graduate career.

Next symposium: Friday, February 9, 2024.

Annual Reports

Students will be required to complete an annual report form on their progress, accomplishments, and activities. This report will be due in March/April of each year.

IDP

Federal granting agencies have mandated that all students and postdocs receiving supporting funds are required to use individual development plans (IDP) to provide structure for tracking career development and learning goals. IDPs will be completed and discussed with the Fellow's mentor and/or an MBTP Executive Committee member in the spring semester of each year of support. Students are encouraged to use the AAAS online tools for creating or modeling an IDP at <http://myidp.sciencecareers.org/> but can also create their own form.

Research Ethics Training

Students must participate in a short refresher training module three years after completing initial research ethics training (BIT 815K or equivalent approved class). This training is valid for three years and should be current before completing the PhD. This training is available through CITI at the following link:

<https://research.ncsu.edu/administration/compliance/research-compliance/research-integrity/rcr-training/>

Teaching Experience

Fellows are required to meet GAANN statutory requirements with a program that:

- Provides instruction on effective teaching techniques
- Provides supervision of the fellow's teaching performance
- Provides evaluation of the fellow's teaching performance

Completion of the Teaching Certificate through The Graduate School will fulfill the requirements-see page 2.



Professional Development Programs

Teaching Certificate Requirements



FOUNDATIONAL WORKSHOPS (REQUIRED)

Four (4) workshops, or attendance at the all-day New TA Workshop held in August, are required for the Teaching Certificate:

- Teaching College
- Engaging Diverse Learners
- Using Learning Outcomes
- Mentoring 101

Visit go.ncsu.edu/gradworkshops to enroll in this semester's workshops



ELECTIVES (REQUIRED)

Four (4) electives are to be chosen from these options:

- One of the four listed above IF you attended New TA Workshop
- Accessibility in the Classroom
- Avoiding Death by PowerPoint
- Emotional Intelligence: A Tool for Teaching
- How to Survive Your First Day of Class
- Managing Conflict in the Classroom
- Processing Course Evaluations
- Working with First Generation College Students
- Writing a Statement of Teaching Philosophy
- Approved DELTA or Library workshop (no more than 2 as electives)

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EXPERIENCE (REQUIRED)

One (1) of the following is required for the Teaching Certificate:

- Teaching assistantship + reflections paper
- Guest lecture (twice – preferably in one's department and/or for one's advisor) and two presentations outside of class + reflections paper
- Mentoring an undergraduate student through one of the Graduate School's partnerships with Office of Undergraduate Research or the College of Engineering + reflections paper



DELIVERABLE (REQUIRED)

- Find a job posting that interests you which involves teaching
- Create a portfolio with all required materials to apply for that position such as CV/resume, cover letter, teaching philosophy statement, and the job position

See reverse for instructions on submitting these deliverables