

**PROGRAM REVIEW IMPLEMENTATION PLAN
ANNUAL PROGRESS REPORT
Agricultural and Medical Biotechnology 2022-2023**

Recommendation 1. Add a second staff academic coordinator for AMBT students and investigate opportunities for an AMBT office suite to clarify where students can access advisors and program leadership, and enhance program visibility and branding. The AMBT program shall work with the CAFE Office of Diversity to ensure equitable search practices in identifying and interviewing candidates for this position. (SF2, SF4, OP2, OP4, MPOC1)

Assessment method:

Work with college administration to identify opportunities/resources to (1) increase staff capacity in consultation with the college's Office of Diversity, and (2) identify a singular grouping of AMBT office spaces in a highly visible location.

Results:

Due to the change in the advising scheme, we now have an additional staff member, Mr. Christopher Crutchfield (AMBT Academic Advisor). Ms. Esther Fleming is now the AMBT Academic Coordinator. A new teaching building will house the AMBT staff offices and provide a designated area for student gatherings.

Analysis of results and reflection:

We have now two staff members, an Academic Advisor, and an Academic Coordinator. Ms. Esther Fleming can take on additional tasks and address new responsibilities that were previously challenging due to staff shortages.

Ongoing improvement actions:

No more action is required for this recommendation.

Recommendation 2. Identify opportunities to increase TA lines for ABT Courses. (SF2, SF4, OP2)

Assessment method:

Work with college administration to identify opportunities for TA support for departments with faculty and staff participating in the AMBT program (e.g., Horticulture, Plant and Soil Science, Entomology, Plant Pathology, and Veterinary Science).

Results:

We will create a new ABT course in which ABT students do peer-mentoring and lab instruction as TAs for ABT 120.

Analysis of results and reflection:

We are in the process of developing the course and this action will also fulfill Recommendation 9-a.

Ongoing improvement actions:

We are in the process of developing the course.

Recommendation 3. Develop an Industry Advisory Board for AMBT Program to increase visibility among potential research mentors campus-wide and among private industry partners. (SF2, SF4, OP2, OP3, OP4, II1)

Assessment method:

Develop a plan for an Industry Advisory Board. The plan will consider aspects such as nominations, governance, communications, fundraising, and intentional engagement.

Results:

Regarding the campus-wide research mentor search, the AMBT Steering Committee suggested contacting individual faculties at different colleges instead of forming an advisory board. This is because there is little or no incentive for hosting undergraduate students for research experiences in other colleges, and a college/campus-wide effort may yield fewer benefits. On the other hand, an advisory board with industry professionals would be beneficial.

Analysis of results and reflection:

We agree with the Steering Committee suggestion. We will communicate with the Office of Undergraduate Research and seek for research opportunities for the AMBT students.

Ongoing improvement actions:

We will identify candidates in industry and form the Industry Advisory Board.

Recommendation 4. Develop an Alumni network organization for mentorship and professional development of current students (could work with ABT club). (SF1, SF2, SF4, OP2, OP3, OP4)

Assessment method:

Establish a sub-committee under the AMBT Steering Committee to promote alumni engagement, and we will work in consultation with the college's Office of Philanthropy.

Results:

We have established Agricultural and Medical Biotechnology Alumni Affiliate Network Leadership Team to promote alumni engagement.

Analysis of results and reflection:

The team has been recently formed, so no activities have been conducted yet.

Ongoing improvement actions:

We will facilitate their meeting and seek their recommendations for alumni activities and involvement, particularly in mentorship and the professional development of current students.

Recommendation 5. Develop University Scholars Programs with appropriate UK graduate programs. (SF2, SF4, OP2, OP3)

Assessment method:

Work with the leadership of IPSS and IBS to establish a University Scholars Program.

Results:

The AMBT-IPSS USP has been launched. The AMBT-VS UPS will hopefully start in Fall 2024.

Analysis of results and reflection:

We have not started with IBS, yet.

Ongoing improvement actions:

Besides IBS, MS in Forensic Toxicology and Analytical Genetics is also suggested by the AMBT Steering Committee. We will start communicating with their programs.

Recommendation 6. Codify articulation agreements and course alignments—and investigate Academic Common Market considerations—to enhance Farm to Pharm Program. (SF2, SF4, OP2, OP3, OP4)

Assessment method:

Work with college administration to establish the Farm to Pharm program with the College of Pharmacy.

Results:

We talked with the College of Pharmacy regarding ACM because the college will start a new undergraduate program. Although we still do not know how ACM works with Farm to Pharm program, the college is interested in having pharmacy students who are under the benefit of ACM coming through the AMBT program.

Analysis of results and reflection:

We will communicate with the College and other sections to gain more information about ACM.

Ongoing improvement actions:

We will first need to know how ACM works to figure out whether Farm to Pharm can be benefitted by ACM.

Recommendation 7. Request college support to seek outside funding (philanthropic and governmental) for undergraduate education and research initiatives. Consider development of an external advisory board for establishment of undergraduate training program grants. (SF2, SF4, OP2, OP3, OP4, II1)

Assessment method:

Work with college administration and our newly established Industry Advisory Board to explore opportunities to generate external funding to support the AMBT program. Such funding opportunities may be philanthropic or competitive in nature.

Results:

We have not identified any external funding, yet.

Analysis of results and reflection:

Identification of external funding to support the program will be difficult, but it is worth trying.

Ongoing improvement actions:

We will communicate with college administration and establish Industry Advisory Board.

Recommendation 8. Host an annual advisor meeting to update advisors with current curricular and process details, make advisors aware of changes in scheduling, provide FAQ information, and provide professional development opportunities for advisors (including identification of mental health support resources for students and employees). (SF1, SF2, SF3, OP1, OP2, OP3, MPOC3)

Assessment method:

Set up an annual advisor/instructor meeting to update the advisors with current curriculum and academic schedules, to discuss opportunities available on campus for mental health support, and to provide a dedicated time for FAQ.

Results:

We hosted an AMBT Faculty Retreat (2/14/2023) and an AMBT Advisor Retreat (8/25/2023).

Analysis of results and reflection:

Many AMBT faculties/advisors including some Steering Committee members attend the retreat. We went over course updates/consistency as well as advising schemes/resources to improve our advising quality.

Ongoing improvement actions:

We will host AMBT retreat at least once a year to facilitate communications among members as well as course continuities as recommended in Recommendation 9-a/b/c.

Recommendation 9. Coordinate an annual all AMBT faculty and staff workshop/retreat to do the following (UK Strategic Plan all SF goals) (not necessarily in the same year):

- a. Update and assess consistency of course assessments and learning outcomes across ABT courses and sections. (SF2, OP2)
- b. Codify a standardized process for students to find research mentors early in the curriculum, and provide lab tours (maybe as part of ABT 101/201). (SF2, SF4, OP2)
- c. Identify ways to incorporate quantitative skills and modern biotechnology techniques and applications in the curriculum. (SF2, SF4, OP2)
- d. Develop opportunities for upper-division students to do peer-mentoring and lab instruction for credit. (SF2, SF4, OP2)
- e. Provide information for professional development opportunities in mental health support and DE&I dimensions. Collaborate with CAFE Office of Diversity for training materials and resources. (SF2, SF3, OP1, OP2, MPOC1, MPOC3)
- f. Identify and implement mechanisms to enhance support and academic development of underprepared students. (SF1, SF4, OP1, OP2)

Assessment method:

Set up an annual advisor/instructor meeting to update the instructors and staff members.

Results:

We have discussed these items during our semesterly faculty retreats and have made great strides in meeting these recommendations. We have currently fulfilled (but will continually reevaluate) 9a, 9b, 9e and 9f.

Analysis of results and reflection:

The ABT Leadership meets every two weeks to operationalize the guidance from the Steering Committee and our faculty to fulfil these recommendations, and continually assess program needs in these areas.

Ongoing improvement actions:

We are working on the following points in the following ways:

9c: We are reassessing our major-required classes to see if there are areas for synergy and cross-cutting curricular design. We are also exploring the development of a new genetics course with a lab in addition to a bioinformatic course pipeline.

9d: We are planning on proposing a peer mentorship class in support of ABT 120 fulfilling this goal of peer mentorship and lab instructional credit for the Spring 2025 semester.

Recommendation 10. Work with college administration to identify opportunities for including additional teaching lab spaces in new buildings where possible. (SF2, SF4, OP2, I13)

Assessment method:

Work with college administration to identify opportunities for establishing additional teaching lab spaces in new facilities and renovating spaces in current facilities.

Results:

The new research building will house two research labs dedicated to the AMBT program.

Analysis of results and reflection:

It is important that the new research lab spaces are functional for ABT 120 and ABT 495, and possibly for genetics lab.

Ongoing improvement actions:

We are discussing with the building development team to make sure the lab space will be functional and efficient.