

Recommendations to increase Diversity, Equity, and Inclusion in MCDB

The MCDB DEI Committee, Fall 2020

I. UNDERGRADUATE

TEACHING

MCDB faculty and graduate students teach several thousands of undergraduate students each year. However, there is currently no training or guidelines for inclusive and equitable teaching outside of the Teaching Academy or MCDB 801. Postdoctoral fellows involved with undergraduate students should also be included. These recommendations should be considered and implemented by the Undergraduate Studies Committee and the DEIC.

Recommendation #1a: MCDB faculty should take part in an “Inclusive Teaching” workshop organized by CRLT. The MCDB DEI Officer will liaison with CRLT to organize an “Inclusive Teaching” workshop for the MCDB faculty to be held in Winter 2021. They will also put together resources to be shared with future hires.

Recommendation #1b: MCDB GSIs should participate in a similar workshop offered by Rackham. The MCDB Rackham Student Allies will liaison with Rackham to make sure GSIs attend the workshop and compile documents to share with the future GSIs. Such documents should be given to the Graduate Studies Committee so that they can be included in the first year PhD students during orientation.

Recommendation #1c: To continue the training and develop strategies for inclusive teaching internally, the MCDB DEIC will organize bi-yearly “conversation hours” to be held at lunch time for 60’ and will write blog posts summarizing ideas and resources on the MCDB DEI website.

Recommendation #1d: The Undergraduate Curriculum Committee should use the resources provided by CRLT and learned at the workshops when reviewing course offerings and syllabi. Syllabi should include the [statements](#) provided by the U-M.

RESEARCH

MCDB faculty and graduate students mentor undergraduate students each year. However, in the current system, research opportunities for junior and seniors are often open to students who have prior knowledge of research or who can afford to do research for credit. Postdoctoral fellows involved with undergraduate students should also be included in the training.

Recommendation #2a: The Undergraduate Studies Committee should encourage participation in UM undergraduate research programs targeted to undergraduate students from underrepresented backgrounds, and if necessary, establish how to contribute financially to them.

Recommendation #2b: Provide resources and courses to prepare graduate students and PDs to mentor undergraduate students, as this year MCDB 600 class Dr. Laura Olsen is offering.

Recommendation #2c: Use work-study funds to hire students for research.

Recommendation #2d: Provide financial resources to support a small number of students during the academic year if work-study is not available or as an alternative to it.

Recommendation #2e: Recognize, advertise, and contribute to FIRST: Future In Research Science and Teaching, an MCDB based student organization that serves as a pre-science UG club that promotes career development and inclusion. Currently FIRST is run by graduate students in MCDB and other programs with Dr. Laura Olsen and Dr. Monica Dus as faculty advisors.

II. GRADUATE

MCDB faculty mentor many graduate students each year. However, there is currently no clear training or established guidelines for inclusive and equitable mentoring in the curriculum or the admission process. Postdoctoral fellows involved in mentoring graduate students should also follow some of these recommendations.

These recommendations should be considered and applied by the Graduate Studies Committee and the Graduate Admission Committee.

ADMISSIONS

Recommendation #3a: To serve on the admissions committee, faculty and students should take a [Rackham workshop](#) to be aware of how implicit biases and academic norms affect admissions. If the Rackham is not available, many other workshops are available online, [here](#) is a link.

Recommendation #3b: A rubric with clearly defined criteria for holistic evaluations as recommended by Rackham should be created and followed by all members of the committee. [Here](#) is a workshop and guide to holistic review.

Recommendation #3c: Faculty and students attend ABRCMS and SACNAS at least once during their 3-year term of service, so that MCDB is represented at both conferences yearly. MCDB covers costs of attendance.

Recommendation #3d: The Undergraduate curriculum committee for MCDB and PIN should develop relationships with the directors of programs such as [MARC](#), [RISE](#), [BP-ENDURE](#), and [LSAMP](#) programs at many institutions and pay for MCDB graduate students who were part of these programs to visit their universities to recruit future students.

CURRICULUM

Recommendation #4a: The Graduate studies committee should develop a skill-based system for rotations and annual IDP evaluations that is based on growth and development rather than comparison based assessments. A copy of the draft assessment created by the DEIC is attached to this document.

Recommendation #4b: The Graduate studies committee should develop a code of conduct for faculty and students that is added to the Graduate Program Handbook.

Recommendation #4c: The Graduate studies committee should develop a rubric to be used by faculty members in all checkpoint 1 and checkpoint 2 evaluations.

Recommendation #4d: MCDB faculty should take part in an “Diverse Mentoring” workshop. The MCDB DEI Officer will liaison with Rackham to organize the workshop for the MCDB faculty to be held in Winter 2021. They will also put together resources to be shared with future hires. The MCDB DEIC will organize bi-yearly “conversation hours” to be held at lunch time for 60’ and will write blog posts summarizing ideas and resources on the MCDB DEI website.

Recommendation #4e: All first year students have a peer mentor from senior students, this process is already organized by the GSC, but it should be formalized within the Graduate studies committee.

Recommendation #4f: The Graduate studies committee should establish rules for how to conduct thesis committee meetings and added to the Grad Studies Handbook. Right now each committee is slightly different, which leads to inequitable mentoring. For example, at each thesis committee the student should be given an opportunity to talk to their committee without their PhD advisor present. Also, the chair of the thesis committee should be a faculty member other than the PI of the lab to ensure equity in mentorship.

Recommendation #4g: Establish service, teaching, and research awards to reward MCDB students for their efforts in these 3 categories. These awards are present for PIBS and other programs, and lead to inequitable recognition for MCDB students.

Recommendation #4h: The Retreat Organizing Committee should include a climate-related activity and also a DEI discussion in the yearly annual retreat.

Recommendation #4i: Reserve two seminar spots to be selected by student/PD invited speakers for career development.

III. FACULTY and STAFF

Recommendation #5a: When serving on the search committee, take the [STRIDE workshop](#) and establish a clear rubric for evaluation candidates in an unbiased manner before and after the first visit.

Recommendation #5b: Schedule a faculty meeting in winter 2021 to discuss and establish a plan to increase MCDB faculty diversity in the next 3 years (2021-23), including ways in which the [Presidential Fellow program](#) and the [NextProf Program](#) will be used.

Recommendation #5c: The composition of MCDB committees should be inclusive to ensure equity in decision making, we recommend a more open and formalized method of assigning membership on committees so that this honor doesn't fall into the same category or group of people.

Recommendation #5d: Change the norms of annual reviews, promotions, and merit increases to give more weight to service, especially that done at the benefit of DEI and the department as a whole, so that service work doesn't negatively impact the standing of some members over others, even if their work benefits the department as whole. Adjust reward structures to mirror the time commitment that faculty is putting into the work, giving invisible service work and the emotional labor of being supportive to students, weight and visibility.

Recommendation #5e: Increase representation of the MCDB Seminar Series: from AY 2015-2019 the speakers have been 76% male and 73% white.

Recommendation #5f: Make the DEI committee a formal committee and define its roles, which requires a change in the MCDB Rules of Governance. This is required to define the MCDB financial commitment for this committee once Rackham grant expires in 2021.

Recommendation #5g: Petition LSA to make the DEI Officer an associate chair to recognize the time effort involved in this service position.

Recommendation #5h: Use 2x 90' faculty meetings slots in W 2021 to attend the workshops: “inclusive teaching (see #1a)” and “diverse mentoring (see #4d).” These are organized by CRLT and Rackham.

Recommendation #5i: schedule a faculty meeting this year to discuss the unequal impact of covid on faculty and implement ways to address the inequity in MCDB for the 2021 and 2022 annual reviews and promotions- guidelines have already been developed by ADVANCE. Institute how MCDB will follow the [ADVANCE](#) recommendations to ensure that merit reviews and promotions are equitable due to COVID.

A Proposal for Skill-based Career Development for the MCDB Graduate Curriculum

Goal: Create a skill based approach to developing and assessing skills in graduate students. The DEIC drafted this proposal in collaboration with TJ Waller, and is available to meet with the MCDB Grad studies committee to consult on this goal.

Rationale:

- Define expectations and benchmarks for skills to be developed during the graduate training;
 - Shift away from judgement-based and comparative evaluations (i.e. above average, below average, exceptional) which promote feelings of inadequacy and lead to students internalizing their fears of not being up to par;
 - Focusing on developing rather than innate skills promotes feeling of belong and inclusion;
 - Emphasize progress as a part of a growth mindset. Students become more capable as they gain experience;
 - Focus on graduate education as a “training” for future careers rather than a gauntlet;
 - Skills are applicable to most careers within and outside of academia and can be used in resumes and CVs;
 - Strengths in some skills over others may also help direct students to different STEM paths;
1. **Critical thinking and reasoning:** evaluate data, logical inferences and deductions, limitations in your own and others’ research.
 2. **Experimental design and ethics:** develop falsifiable hypotheses, consider resources, tools, feasibility and outcomes, and identify pitfalls and alternatives; troubleshoot.
 3. **Exposition and Communication:** develop a narrative about the project, and present the background, significance, tools and data in a clear, logical, and compelling manner in both written (grant proposal, manuscripts) and visual form (posters, and talks). In particular, writing is a fundamental part of science in and outside academia. Present at small and big conferences/meetings within and outside the U-M. Learn to communicate science at different levels and to diverse audiences.
 4. **Scholarship:** learn about other people’s research in your own field, understand how your project relates to the field and biological question at large, and make

connections between fields. Identify future directions of the field of research/topic. Attend conferences.

5. **Project management:** identify ways to better manage time across tasks, learn to prioritize experiments, meet deadlines, and assess timelines and outcomes for project completions. Produce tangibles and meet milestones for the next career progressions.
6. **Teaching:** learn the fundamentals of teaching science in higher education, guide students to good learning practices and inclusive teaching, and become part of a higher education instructional team.
7. **Mentorship:** develop a mentoring philosophy by assisting undergraduate students with their research and guide them through the process of writing their thesis or honor thesis. With years become a knowledge base for the lab, and help train rotation and junior graduate students.
8. **Service:** be involved in projects that disseminate scientific knowledge in society, empower communities, further diversity, equity, and inclusion in academia, and broaden the horizon of your own scholarship. Keep assessments and data from these.
9. **Resilience:** learn how to react to feedback, setbacks, and unexpected outcomes, understand thoughts of inadequacy, and maintain a positive outlook to foster your career development and creative approach to challenges.
10. **Independence:** take the initiative in developing one's own positions and ideas in research, teaching, and service. Encourage students to be proactive, confident in their abilities, and to claim space in academic circles as they grow.

Assessment of Learning/Progression

Assessments for these skills should be based on extent of [proficiency](#), it could be reduced to a 3 scale instead of a 5 point scale (Beginner, competent, proficient):

1. Novice
2. Beginner
3. Competent
4. Proficient
5. Expert

What is the MCDB DEI committee?

The DEIC is not a standing committee with an official chair, and as such it has a sphere of influence and concern, but not a sphere of control. As of now the DEIC doesn't have a budget past Dec 2020. Further, Rackham has locked the DEI budget since Spring 2020 due to COVID and a no cost extension past Dec 2020 is unlikely, so the Rackham funds couldn't be used for Spring, Summer, Fall 2020 activities and will be lost.

It is paramount for MCDB to define the role of this committee in its governance and assign a budget to this committee if we as a department are committed to making MCDB more equitable, inclusive and diverse.

The DEIC goal for the winter term of 2021 is to define a DEIC constitution and to define this committee's responsibilities. We look forward to working with the Chair, the MCDB Administrator and the EC to ensure that the efforts the members of this committee have put into DEI work in the past (see below) and the future have an impact on MCDB.

A proposal for DEIC responsibilities

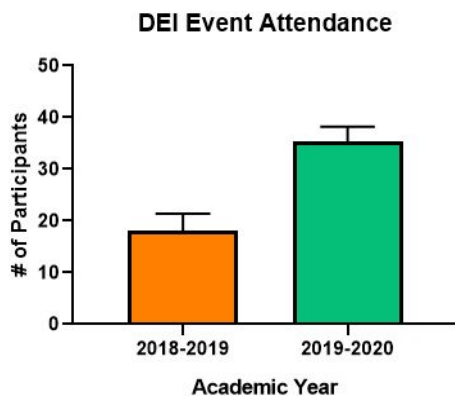
- Organize and maintain a [MCDB DEI](#) website.
- Liaison between the department and the university by providing weekly resources in the MCDB [Newsletter](#).
- Consult with faculty and students on DEI challenges and solutions, make recommendations.
- Organize events that further MCDB DEI efforts on a monthly/bimonthly basis.
- Organize workshops that train faculty, students, and staff and follow up on those training with events and conversations that put them in practice.
- Organize the DEI Retreat for summer 2021.
- Identify aims to apply to the [Rackham Faculty Allies Grant](#) in W 2021.

- Draft a DEI constitution for the MCDB DEIC that includes the steps taken by the Department to address the recommendations listed above.
- Create documents to share with all existing and new faculty, staff, and students about DEI in MCDB that will be part of faculty, staff, and students orientation.
- Draft a DEIC constitution to define roles and responsibilities

A summary of the history and the previous activities of the DEIC for AY 2019-2020, 2018-2019, 2017-2018

- 1) The DEI Committee (DEIC) consisted of the faculty diversity officer, 2 student allies as deemed by the Rackham Diversity Grant who will serve for 2 years, and other students. Students organized and planned a majority of the workshops and the entirety of the retreat. The DEI officer wrote the grant proposal for Rackham.
 - a) DEIC was created by Dr. Anuj Kumar. Dr. Kumar applied for a Rackham Student Ally grant designating Jenna Clem and Krystal Harrison as Student Allies. Jenna and Krystal served as the Student Allies for the 2017-2018 and 2018-2019 academic years. Membership was not formalized, other than the Student Ally designations. All Student Ally designations were awarded through applications for a supplement to the Rackham Faculty Allies Award. The first Rackham Diversity Grant was awarded for use in the academic year 2017-2018. Student Ally designations were passed down to Jessy Martinez and Bahaar Chawla for the 2019-20 academic year. Jessy and Bahaar were under the partial mentorship of Jenna and Krystal during the 2018-19 year to prepare for the change in designation and took lead for half of that year.
 - b) The AY 2020-21 roster of the DEIC includes Dr. Monica Dus as faculty officer, Jessy Martinez and Bahaar Chawla as the Student Allies, Heather Gregg (Pathways Master), Cassandra Zuckerman (MCDB 1st year), Angelica Previero (MCDB 1st year) as students and Dr. Matthew Chapman and Dr. Pamela Raymond as a faculty member. Student and faculty involvement in DEIC is completely voluntary.
- 2) Monthly events are held from September through the summer, which ends with the graduate student and post-doc retreat in either June or July. December is usually skipped to leave time for end of semester work: grading, exams, and holiday-related travel.

- a) Workshops have included bystander awareness given by the Spectrum Center, a departmental diversity celebration organized by DEIC, disability awareness given by the office of Institutional Equity, a science

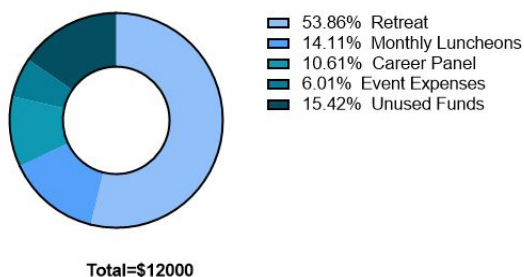


communication career workshop with speakers from ASM and the American Journal Experts, career panel with former MCDB PhD alumni, microaggressions organized by DEIC, the Draw-A-Scientist event for biology week 2020 in collaboration with MCDB-GSC and GREEBS, CEW+ focus groups for how to effectively support women and URM in STEM, Black&STEM educational celebration for Black History Month organized by DEIC, and

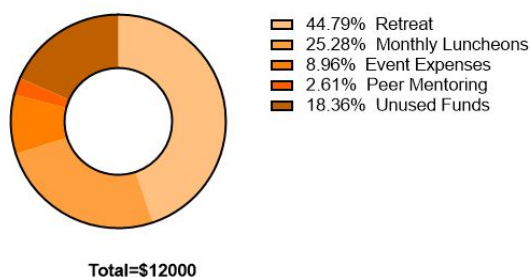
others.

- 3) Monthly event attendance* averages 30 attendees regularly, the majority being MCDB graduate students.
- a) In general, Fall 2019 had a higher attendance which we attribute to the presentations done by DEIC at orientation, bringing in first year students.
- b) The February 2020 event Black&STEM had the highest attendance. We attribute this to better advertisement, such as individual flyers and cookies that DEIC members created and left on every single desk in an MCDB office space. There were also flyers in kitchen areas which helped bring in attendees from EEB.
- 4) DEIC has a Rackham Diversity Grant which covers costs for food at all monthly events, as well fees for speakers and other event expenditures. The retreat is also paid in full with the Rackham Diversity Grant.
- a) The first 2 years were awarded \$12000. The second two years are awarded \$8000, with an agreement in the grant that the department must supplement the difference (\$4000). For 2019-2020, unused funds* will be rolled-over until Dec 2020 due to COVID-19 pandemic.

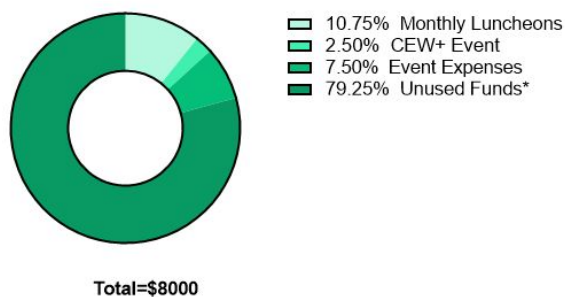
2017-2018 DEI Budget



2018-2019 DEI Budget

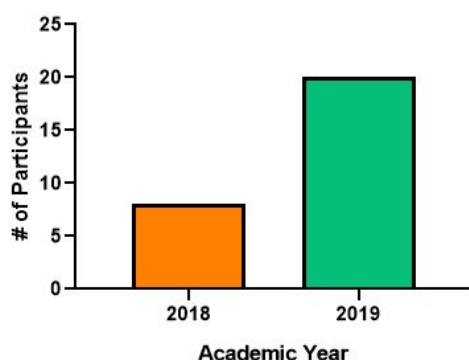


2019-2020 DEI Budget



- 5) The retreat is a weekend trip to a camp outside of Ann Arbor. It focuses on graduate student relationships outside of the lab. Team building exercises include volleyball, rowing, and other outdoor amenities offered at the camp. Post-docs and lab staff are also welcome. Junior lab staff have used this opportunity to learn about careers in academia, while post-docs have used this time to network outside of the lab. Significant others and families of attendees are welcome and have attended. Retreat is popular among attendees.

DEI Retreat Attendance



a) 2018 retreat had 33 students RSVP but only a handful attended due to international travel plans that conflicted with the date.

b) 2019 did better because the date was chosen more democratically and heavily advertised, with emails to incoming students as well. We had 31 RSVP and 20 attended that year.

- 6) DEIC has helped with recruit weekends, preview weekends, and orientation. DEIC hosted the preview weekend students entirely, which includes dinner on arrival and through the departmental retreat, as well as future communication. DEIC created and presented two orientation seminars for incoming Master's and PhD students in Fall 2019 and Fall 2020. DEIC also presented an amended version of those seminars to recruits during breakfast at all recruitment weekends.
- 7) DEIC has also heard concerns from the community in lieu of the department climate form which is not completely anonymous. DEIC has worked with administration to resolve issues pertaining to departmental climate.