## **DEI-AB Professional Development Plan for the Department of Statistics**

### 2024 - 2025 Academic Year

## 1. DEI-AB Goal(s)/Outcome(s)

Units can choose to answer one or both of the following prompts:

1) What does your unit want to achieve with respect to fostering an inclusive and equitable community among staff and faculty in the unit?

Our faculty and staff are committed to maintaining an inclusive and equitable community. Some of our faculty keep current on DEI-AB best practices in our discipline, but one of our goals is to highlight these best practices within our discipline and encourage faculty to infuse these best practices into their statistical instruction.

Our department is already engaged in inclusive and equitable practices by providing resources for at-risk or struggling students. To provide support, our department (in collaboration with the Math Department) offers students in-person and on-line tutoring for a wide variety of statistics courses. This service also benefits our statistics majors and minors who serve as tutors. In addition, we offer two sections of STA 215 with an SLA component; these SLA sections meet two additional hours each week to work problems and reinforce the concepts taught in the traditional lecture/discussion meeting times. But we would like to expand these efforts.

2) What does your unit want to achieve regarding the professional development of faculty and staff in DEI-AB? It does not matter whether the unit chooses a goal or an outcome. Please keep in mind that a goal/outcome can be either a short-term one (e.g., 1–2 years) or a long-term one (e.g., 3–5 years).

Over the next year all statistics faculty and staff will engage in one event of interest in the area of professional DEI-AB development. The primary aim of the department-hosted event is to increase awareness of how our discipline can play a role in advancing DEI-AB work. In addition, our event will be an opportunity for learning, reflecting, and generating new ideas. This event will be chance for faculty to envision how they can create more inclusive learning communities in their classes. It will be a time for faculty to recommit to implementing inclusive teaching practices in the classroom.

The statistics faculty has discussed advancing a parachute course for introductory statistics in an effort to support at-risk students and provide students (who were not ready for STA 215) with a path to success in STA 215. This would be a way to meet students where they are and ultimately promote a more-inclusive and equitable learning community.

## 2. Objectives

What does your unit want to achieve that will help accomplish your unit's DEI-AB goal(s)/outcome(s)? The objectives ought "to define measurable aspects of the outcome that can be assessed" (see "Outcomes," University Assessment Committee: Glossary of Terms)

Next year our department will host one discipline specific event (either a lecture or workshop) oriented at DEI-AB theme. We will encourage our faculty to attend this event, but all faculty and staff will attend or participate in at least one DEI-AB activity.

Over the next 3 years the statistics faculty will explore and (if desired) will advance a parachute course for introductory statistics. The goal of this course would be to support at-risk students and provide students (who are not ready for STA 215) with a path to success in STA 215.

# 3. Strategies

What approaches will your unit use to accomplish your goal(s)/outcome(s)? Note well: Strategies are general in nature and are meant to guide plan implementation.

As mentioned earlier, next year our department will host one discipline specific event (either a lecture or workshop) oriented at DEI-AB theme. We will encourage faculty to attend and identify strategies for infusing the best DEI-AB practices into their teaching.

In Fall 2024 we will form a committee to discuss the creation of a parachute course for introductory statistics, we will investigate the best practices in parachute course (both at GVSU and at other institutions). If appropriate, we will form a committee to spearhead the creation of a parachute course for introductory statistics (this work would likely begin in Winter 2025).

## 4. Professional Development Activities

What will faculty and staff in your unit do to implement the unit's strategies for accomplishing the plan's objectives and/or achieve the plan's objectives?

Faculty will attend or participate in at least one DEI-AB activity. Our department-hosted DEI-AB event will be one such activity, but faculty could attend any of the DEI-AB themed events across the university. We plan to engage statisticians who have been contributors to the Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group, which is a community of statisticians and data scientists committed to communication, programming, and professional development to advance and support a society that values all people. JEDI is an outreach group of the American Statistical Association. Example JEDI contributors include:

- Andrew Gelman is a professor of statistics and political science at Columbia University. He has
  earned numerous awards, including the Outstanding Statistical Application Award, the award for
  best article published in the American Political Science Review, and the Mitchell and DeGroot
  prizes from the International Society of Bayesian Analysis. He has also published several books,
  including Red State, Blue State, Rich State, Poor State.
  <a href="https://magazine.amstat.org/blog/2023/01/02/jedi-corner-sensification/">https://magazine.amstat.org/blog/2023/01/02/jedi-corner-sensification/</a>
- Jana Asher is an assistant professor and the director of statistics education at Slippery Rock
   University. She has been an academic for a relatively short time; previously, her work focused on
   the collection and analysis of human rights violations data.
   https://magazine.amstat.org/blog/2022/04/01/dei-elementary-statistics/
- David Corliss is the principal data scientist at Grafham Analytics. He is the author of Amstat News's Stats4Good and the founder of Peace-Work, a Data for Good nongovernmental organization. <a href="https://magazine.amstat.org/blog/2023/12/01/jedijsm2023/">https://magazine.amstat.org/blog/2023/12/01/jedijsm2023/</a>
- Interesting article: Statistics is the language of data. Just like any other language, statistics requires structure and rules for interpreting messages from data. However, statistics poses additional communications challenges, as it depends on one's written language, which is always rife with nuances. Another concept that continues to present communication challenges in the world of statistics is intersectionality, which refers to the overlapping nature of multiple oppressions based on one's identity (e.g., gender, race/ethnicity, sexual orientation, age). <a href="https://magazine.amstat.org/blog/2021/11/01/the-jedi-corner-statistics-for-equity-capturing-not-masking-intersectional-dynamics-in-data/">https://magazine.amstat.org/blog/2021/11/01/the-jedi-corner-statistics-for-equity-capturing-not-masking-intersectional-dynamics-in-data/</a>
- Stephanie Casey, Liza Bondurant and Andrew Ross (faculty at Eastern Michigan University and Delta State University) wrote a paper entitled "Engaging Teachers in the Combination of Statistical Investigation and Social Justice: Fairness in School Funding". We could ask them to give a workshop or seminar on fairness in school funding.

### 5. Reflection on Learning

This section is where the unit should reflect on what faculty and staff have done with respect to DEI-AB professional development for the 2024–2025 academic year. Please answer the prompt in this section: What have faculty and staff learned from engaging and participating in DEI-AB professional development activities during the 2024–2025 academic year?

## Our unit will:

- Faculty and staff will be asked what was learned from and what they were able to apply from the DEI-AB professional development activities. These descriptions will be anonymously collected by the Statistical Consulting Center.
- Faculty will be surveyed regarding their perceptions of the department-hosted discipline-specific DEI-AB event. These descriptions will be anonymously collected by the Statistical Consulting Center.

These responses will be used to reflect on learning and respond to the prompt in this section.

# 6. Estimate of Expenses related to DEI-AB Professional Development Plan

The CLAS Dean's Office will provide each unit with up to \$1000 to pay for expenses related to engaging in DEI-AB professional development activities for the 2024–2025 academic year. In addition, the CLAS Dean's Office will compensate each part-time/adjunct faculty member for up to 5 hours for engaging in DEI-AB professional development activities. This would amount to up to \$100 for each part-time/adjunct faculty member.

Our department plans to bring in a speaker/facilitator to spearhead our DEI-AB professional development activities. I have no doubt that we would use the \$1000 to offset travel and lodging expenses, plus the costs associated with hosting a department-wide DEI-AB event. We will want to compensate adjunct and visiting faculty for participating.

Please provide an itemized list of estimated expenses related to implementing your unit's DEI-AB professional development plan for the 2024–2025 academic year, if possible. It would be acceptable to add items to the list of expenses as the 2024–2025 academic year progresses. Note well: This section should be included in the internal, editable version of the plan only.

### 7. Timeline

What will your unit do to implement the plan over the next academic year? When do you plan to reflect on how well your unit has achieved one or more of its objectives for the 2024–2025 academic year? Please keep in mind that units will have until May 2025 to report on what they have learned from engaging and participating in DEI-AB professional development activities during the 2024–2025 academic year.

# We plan to:

- host one discipline specific event oriented at DEI-AB theme (Fall 2024),
- survey faculty regarding their perceptions of the department-hosted discipline-specific DEI-AB event (Fall 2024),
- ask faculty and staff how they plan to apply ideas from the DEI-AB professional development activity (Winter 2025),
- form a committee to discuss the creation of a parachute course for introductory statistics (Fall 2024), and
- if appropriate, form a committee to spearhead the creation of a parachute course for introductory statistics\* (Winter 2025 and beyond).

<sup>\*</sup> The creation of a parachute course for introductory statistics would likely be a 2-3 year initiative.