

CNAS Action Plan for 2022-2024 (Individual department plans follow)

- Strategic Enrollment Management
 - Marketing Plan will be finalized and implemented with MarComm in fall of 2022.
 - DFW rates will decrease in every department based on specific strategies.
 - FAST TRACK – We will partner to ensure students know about this opportunity.
 - Focus on health care recruitment for CHM and BIO
- Infrastructure and Funding –
 - Finalize design and Break ground on addition to Temple Hall
 - Raise money for renovation (phase II) of Temple Hall
 - Raise money for renovations to Cheek Hall.
- Evolving Academic Directions for future Careers
 - Blackboard STEM Career site for all CNAS Students and STEM Career Expo
 - Departmental seminar programs and advisory boards bring careers to life for students.
- Inclusive Excellence
 - Inclusive admissions standards for graduate programs highlighted in dept plans.
 - Support the CNAS DEI Committee
 - Support professional development for students, faculty, and staff.
 - Continue grant writing to help with specific projects
- Global engagement
 - Partner with I Succeed Center for international students to enhance student success in CNAS
 - Recruit more international undergraduate students (related to recruitment)
- Community Partnerships
 - Continue successful and productive partnerships
- Seek external grant funding for research, teaching or any of the goals listed above.

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Biology Action Plan 2022-2023

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SEM

- New faculty attend Master Advisor training
- Decrease DFW rates with strategies noted below. Department head will be checking in with faculty throughout the semester.
- New faculty receive in-department advising training
- Genetics (BIO 236) received CNAS funding to implement technology-enabled study groups; the final report was submitted in summer 2022. Since results were promising, the project will continue.
- Strong focus on student research and internships
- Continue active engagement in CNAS/MSU recruitment events
- New recruitment-related projects: send post-cards to visiting students, up-date website, develop short videos
- Highlight new addition to TEM Hall to potential students during recruitment activities
- Inclusive Admissions Graduate Recruitment – Make use of fee waivers from the Graduate College

Global Engagement

- International field research for faculty and students in Belize (Ligon lab)
- International field project for faculty in Australia (Finn)
- Collaborate with MSU-WP faculty (Estrella) on Study-Away to Costa Rica

Community Leadership/Partnership

- Faculty work with Go-Caps students (Lupfer)
- Faculty work with multiple science competition events (about 10 faculty involved)
- Faculty maintain Grape Demonstration Garden (Kovacs)
- Faculty/students curate Springfield Butterfly House (Barnhart-emeritus + students)

Academics

- Continue to participate in 3 interdisciplinary certificate programs
- Focus on internet courses in the summer, which has shown to increase summer enrollment
- New initiative to work with qualified teachers to offer dual credit for BIO 121 (major's course)
- Faculty commit to making efforts to help students in the DFW-range be successful

Diversity

- Continue to highlight diversity and cultural competence (including global issues) in courses
- Continue to invite diverse speakers for seminar programs
- Share diversity training/seminar opportunities and encourage faculty to attend

Biology Plan for improving DFW rates: Based on Fall 2022 Faculty Discussion

1. Be proactive about referring students to the Academic Care Team
2. Personally contact students who are having problems
3. Use Blackboard to send reminders to students about upcoming assignments. In the "gradebook" there is a button that allows you to automatically send reminders to students who haven't yet submitted upcoming assignments.
4. Un-grading (from this year's Showcase on Teaching and Learning": Allow student to re-take tests, sometimes with different expectations, e.g.:
 - a. Students must explain why they missed questions on the first test

- b. Students must turn in all assignments that were due before the re-take is allowed
- 5. Use many small quizzes instead of fewer large exams
- 6. Use “mini-quizzes” (with very easy content) to ensure that students come to class
- 7. Add “recitations” to courses
 - a. Use peer leaders to guide the recitations
 - b. Consider adding an extra hour to the class to make up for the time needed
- 8. Synchronize lectures with other material (e.g., study guides)
- 9. Have personal meetings with students in classes
 - a. Get feedback on what could be done differently to help them do better
 - b. Offer specific strategies to students based on their feedback
- 10. Before exams, give an application/enrichment-based extra-credit assignment to make sure they understand the material.
- 11. Share helpful resources with other faculty
 - e.g., [Chronicle of Higher Ed Student Success site](#)

Chemistry and Biochemistry Department Action Plan 2022 – 2023

1. Strategic Enrollment Management and Retention

- Continue to work on barriers to success for classes with high DFWs (bottom of page).
- Work on removing unnecessary barriers in our undergraduate Biochemistry track.
- Engage undergraduate and graduate students in outreach activities in local schools.
- Encourage faculty and staff to undergo Master Advisor and Proactive Advisor training.
- Revamp and update departmental website, brochures, videos.
- Continue encouraging faculty that participate in undergraduate/graduate research mentoring.

2. Evolving Academic Directions for Future Careers

- Offer Advanced Organic Chemistry (CHM 542/642) fully online (SP 2023)
- Continue supporting dual credit teachers by offering evening classes.
- Continue promoting enrollment in Foundations Pharmaceutical Science Certificate program.
- Seek professional development opportunities for faculty and staff.
- Revise Chemistry Department Assessment Plan.

3. Inclusive Excellence

- Continue using graduate admission fee waivers as needed.
- Continue to invite diverse speakers for seminars.

4. Global Engagement

- Open a Departmental LinkedIn account to connect and engage with alumni, students, potential employers
- Continue recruiting international students thus increasing diversity, enriching learning environment and cultural perspectives.
- Seek and encourage opportunities for faculty in international collaborations.

5. Community Leadership and Partnerships

- Partner with local industry to enhance workforce development/internship opportunities for students and graduates.

6. Infrastructure and Funding

- Encourage and support faculty efforts to pursue external funding by providing incentives to attend workshops related to external funding sources (ACS, NSF, NIH, etc.).

Addressing high DFW Rates in some courses

Strategy: Target General Chemistry I and II (CHM 160 and CHM 170) and Organic Chemistry I and II (CHM 342 and CHM 343) classes. These classes constitute the bulk of DFWs.

Action plan: 1) Reinstate embedding of a tutor in CHM 342 class in the Course tutoring (PASS) program.
2) Continue doing recitations for CHM 342
3) Reinstate PASS programs in CHM 160, CHM 170 and CHM 343
4) Enhanced tracking and flagging of concerning student behavior and performance to ensure timely deployment of support (We will start with CHM 160 and CHM 170)

CS Action Plan 2022-2023

1. Strategic Enrollment Management

- Continue to work on CS introductory courses to improve student success which leads to better retention
- Tackle high DFW rates (especially the CSC 1-level and 2-level undergraduate classes)
- Involve more undergraduate and graduate students in faculty research
- Provide support to the “CODERS” grant that brings K-12 students and teachers to campus which can help with student recruitment

2. Evolving Academic Directions for Future Careers

- Concentrate more on courses related to data science and robotics based on current and future demands
- Continue to recruit and enroll students into certificate/BS/MS programs
- Creating inter-disciplinary certificate programs

3. Global Engagement

- Work on possible degree programs with China and India
- Student/faculty research with other global institutions

4. Inclusive Excellence Driving University Success

- Continue to invite diverse speakers for seminar programs
- An evaluation process for inclusive admissions at the graduate level

5. Community Leadership and Partnerships

- Work with local employers and MSU administrators on more internships and full-time positions for students
- Work on internships and full-time opportunities for graduate students who are primarily international

6. Infrastructure and Funding

- Finding more research lab space
- Explore collaborations with other departments, universities to actively seek federal funding as well as industry funding

GGP ANNUAL GOALS FOR 2022-2023

Strategic Enrollment Management

- o Major, minor, and certificate enrollments and general education course enrollments will be a topic of discussion at every GGP Department Meeting. We will set aside time to discuss strategies, ideas, etc. This will keep this issue at top-of-mind and help faculty stay engaged throughout the year.
- o GGP will focus on the following marketing and communications strategies, in cooperation with college-wide efforts, with the following priorities:
 - Develop content that we can use on Instagram and TikTok. That is, create visually oriented, brief messages about GGP faculty, students, and alumni that can be used to recruit new majors and students into our general education courses
 - Develop a web site to promote the new Sustainability major.
 - Develop ads we can deploy on social media for our general education courses and our major programs
 - Update our brochures (or die-cut infographic handouts), create postcards, and purchase traveling displays
- o GGP will continue to review every major's progress toward completing their program requirements and proactively intervene to avoid common hurdles toward graduation.
- o GGP will increase our certificate enrollments by ensuring that every current major is co-enrolled in relevant "stackable" certificate programs.

DFW Rate Reduction

- o GGP DFW rates as a whole are good. A review of DFW rates by individual course indicates that some of our highest rates were in courses that were converted to online during the pandemic. These courses will be transitioned back to seated modalities, which have been more successful in terms of DFW rates pre-pandemic. Staffing changes (especially retirements, etc.) have resulted in new instructors for courses that previously had high DFW rates. These new instructors will bring fresh approaches and strategies to these courses.
- o GGP will establish a "Success Center" that will provide tutoring and help to students in all our courses. The Success Center will be staffed by our graduate students during regular hours Monday through Friday. Faculty will support the center by encouraging students in the class to use the center's services to succeed on exams, assignments, and projects. This will be a primary strategy for reducing DFW grades within our offerings.
- o Faculty will be asked to employ one specific strategy for every course to reduce DFW rates. DFW rates and mitigation strategies will be a topic on every department meeting agenda with time set aside for discussing the strategies that individual faculty are using in their courses and to share what is working and what is not.
 - Example strategies that may be employed include: more frequent low-stakes assessments in place of less frequent high-stakes assessments; Un-grading; Incentivizing Lecture Attendance; collaborative exams; pre-exam extra credit; pre-exam and assignment reminders; direct intervention with struggling students; avoid "backloading" grades with lots of points at the end of the semester.
 - Faculty will report a list of strategies they employed for each course on their annual report and include a ~2 sentence statement about which strategy worked best and why.

Infrastructure

- o GGP will focus on planning for the new addition to Temple Hall, including what additional resources and equipment will be necessary to fully utilize the new spaces on day one. We will also focus on planning for the backfill and evolution of spaces in existing Temple after we move into the new addition. The top goal is to ensure that every GGP faculty member has dedicated research space after the completion of the addition and renovation.

Evolving Academic Directions for future Careers

- o GGP will be rebalancing our online vs. seated course offerings for the post-Covid normal. Particularly, we need to re-assess the most appropriate and beneficial modality of major's-level courses that moved online during the pandemic. We also need to rebalance our general education offerings and modalities with current trends in enrollment.
- o We will be implementing a new naming and numbering system for our general education Geology courses (GLG 110, 115, 171) and creating a standalone lab. The new names and some numbering changes will be put forward for curricular change in Fall 2022. The remainder may need to wait until Fall 2023 because of the window for submitting new courses to MOTR.
- o GGP is partnering with PAMS and CS to develop new certificates related to GIS and Big Data. These certificates will package courses that combine into a skillset that is highly desirable in the current technology career sector.

Inclusive Excellence Driving University Success

- o In addition to hosting at least one seminar focused on issues of diversity and cultural awareness, GGP will increase student participation in the seminar by incentivizing students in our courses to attend.
- o GGP has convened three graduate faculty subcommittees that will review and revise our (1) recruiting, admissions, and applicant evaluation and ranking procedures, (2) our teaching assistantship selection process, and (3) our graduate program requirements and policies. The charge for each subcommittee includes incorporation of relevant best practices from the 2022 MSU Guidelines for Use of Inclusive Practices in Graduate Admissions Report

Global Engagement

- o GGP will offer study away programs or similar off-campus experiences that connect our students, our disciplinary concepts, and hands-on experiences in the context of other cultures. We currently have two to three programs tentatively planned for departure at various times through summer 2023. We will also partner with faculty in other departments to offer their Study Away programs as GRY 470 or GRY 353 (or pre-approving their trips for our major requirements).

Community Partnerships

- o We will work on methods to increase the awareness among our majors regarding internships, research, and other hands-on experiences. We receive regular internship and research opportunity announcements, but it is sometimes challenging to get students to apply. Overcoming this requires direct interventions and encouraging students and reassuring them that they have the skills to offer a competitive application.

Department of Hospitality Leadership Goals for 2022-2023

- 1) Revise the HL Mission statement and update the HL department strategic plan
 - a. SEM – align with MSU initiatives
 - i. Work on collaborations and 2+2 agreements with international schools to recruit international students
 - ii. Promote FastTrack to non -traditional students
 - iii. Continue Digital Media campaign targeting transfer students
 - b. Conduct SWOT analysis of HL
 - i. Review curriculums of peer schools
- 2) Increase awareness of HL on MSU campus
 - a. Highlight Carrie’s Dine in option
 - b. Host events – Career Fair, Student group events
- 3) Update curriculum and explore new programs
 - a. Expand tourism offerings
 - b. Assess feasibility of Culinology program
[RCA : Culinology® Degree Programs](#)
 - c. Develop “Preferred Employer Partnerships” to enhance internship opportunities
- 4) Improve retention and monitor DFWs
The DFW rate for HL classes fall 2021 was 10% (#DFW/Total student count).
The DFW rate in spring 2022 was 12%. The classes with the highest DFW rates were online classes. Faculty made frequent attempts to contact students to see if they needed assistance and remind them of assignments and due date.
Faculty will continue this practice 2022-2023. We will also try to monitor student progress through advising (mid-term grades).

Department of Mathematics Goals 2022-23

1. Strategic Enrollment Management
 - a. Continue to work on DFW rates and barriers to success:
 - i. Implement and evaluate redesign of MTH 101 (Pat Sullivan and Kimberly Van Ornum)
 - ii. Supplemental Support via TA for MTH 137.
 - iii. TA’s providing part of their assignment in the BearCLAW in support of Precalculus and Calculus.
 - iv. Faculty encouraged to apply a leaner and meaner approach to curriculum: thin out less consequential material. See: [Chronicle Article](#)
 - b. Continue to fund undergraduate research.
2. Evolving Academic Directions for Future Careers
 - a. Continue to support potential dual credit teachers with coursework.
 - b. Explore adding an undergraduate Data Science certificate.
3. Global Engagement
 - a. Finish and implement 2+2 Transfer Agreement with Shandong Normal University (China).
 - b. Explore undergraduate and graduate recruitment from Nepal and India.

4. Inclusive Excellence
 - a. Hiring Goal: For the next five hires in Ranked Faculty positions the department is setting a target that at least three will be women and/or from underrepresented groups.
 - b. Insure inclusivity in invited speakers for colloquia.
 - c. Insure an inclusive process for graduate student applications.
5. Community Leadership and Partnerships
 - a. Continue working with current partners (American National, local high schools)
6. Infrastructure and Funding
 - a. Continue working with Dean's office on master plan for Cheek Hall.
 - b. Continue patch and repair on Cheek Hall until (a) is achieved.

Physics, Astronomy & Materials Science

1. Strategic Enrollment Management

- Increase marketing efforts, including videos, postcards, etc., to enhance student interest in department programs
- Continue focus on early student success in department
- Work on reducing DFW rates in introductory physics and astronomy classes
- Continue to involve students in research in department labs
- Utilize fee waivers from the Graduate College for inclusive admissions of graduate students

2. Evolving Academic Directions for Future Careers

- Continue to develop Blackboard site for department student groups to help drive career development
- Explore adding an option to major geared toward future societal needs
- Work on attracting student enrollment in new Biomedical Physics certificate

3. Global Engagement

- Support international research collaborations from faculty in department
- Increase efforts in recruitment of international students (e.g., from India, Nepal and Indonesia), particularly at the undergraduate level
- Continue collaborative partnerships for astronomy research with international scientists (Mike Reed)

4. Inclusive Excellence

- Continue to invite diverse speakers for PAMS seminars
- Continue to sponsor women students on attending CUWiP conferences
- PAMS faculty will continue to serve on committees on diversity and inclusion

5. Community Leadership and Partnerships

- Continue strong partnerships with local industries for funding opportunities and student internships (Cornelison, Moreno, Ghosh)
- Work toward establishing MOCAP lab in department (Cornelison)
- Continue to offer outreach programs, such as public viewing nights, at Baker Observatory (Morrison, Reed)

6. Infrastructure and Funding

- Complete renovation of KEM 101 lobby area to create a much more student-friendly environment
- Continue to explore partnerships with other institutions for research funding opportunities
- Continue to seek funding opportunities for infrastructure improvements at Baker Observatory

Plan for improving DFW rates in PAMS: Faculty input Fall 2022

1. Will implement more flexible grading policy, including dropping the lowest mid-term exam score and lowest homework score.
2. A more flexible deadline policy will be implemented: Deadlines are meant as guidelines for staying on track so no late penalty; the only hard deadline is the deadline at the end of the semester.
3. Will offer exam revision opportunities to students.
4. A mixture of exams and term project as methods of summative assessment will be implemented.
5. Will advertise in class peer tutoring through the BearCLAW (for AST 113) and within department through LAs for introductory physics classes.
6. Greater emphasis will be placed on the self-paced nature of online courses in the first video of the semester viewed by students, by giving examples of required time allotments for reading, assignments, etc.
7. Will work with FCTL to implement newly developed videos and online materials to better serve students enrolled in online introductory physics course.
8. Fewer derivation ("proofs") of equations and more focus on conveying concepts: Urge the students that are interested to follow the textbook or work with instructor one-on-one on the derivations.
9. Will emphasize providing more examples and problem solving in PHY 204. This may mean eliminating a topic or two in material covered.
10. Implement some level of active learning in class: Will hold a weekly group problem where the students work in small groups trying to solve a problem. Emphasis is on fostering discussions and having the students participate.
11. Hold a portion of office hours in the student study lounge to provide greater instructor availability.
12. Tutoring sessions will be set up with LA's once or twice a week to help students with homework and studying for exams for PHY 203 and 204.