

A Faculty Flowchart for Student Disengagement and Mental Health

Maureen Tang, Drexel University

Maureen Tang joined the faculty of Chemical and Biological Engineering at Drexel University in 2014 and obtained tenure in April 2020. She received her BS in Chemical Engineering from Carnegie Mellon University in 2007 and her PhD from the University of California, Berkeley in 2012. Dr. Tang completed postdoctoral work at Stanford University and research internships at Kyoto University, the University of Dortmund, and DuPont. She is the recipient of a NSF CAREER award. Her research at Drexel studies materials and processes for electrochemical energy storage and conversion.

A Faculty Flowchart for Student Disengagement and Mental Health

Abstract

Mental health problems have skyrocketed among young people and students, and professors are increasingly finding themselves in challenging student situations. Faculty training, if it exists, does not typically address non-cognitive problems. It is unrealistic and unfair to expect professors to serve as counselors or therapists, but as classroom instructors, professors have opportunities to identify troubling behavior and influence students towards constructive behavior and help-seeking.

We created a simple flowchart to guide faculty and TAs through challenging student situations from mental health crises to chronic disengagement. Answering questions such as "are you concerned about behavior or disengagement?" or "is it a sudden change or chronic? " directs instructors to appropriate responses. Interactive links provide specific examples, resource links, and, very importantly, suggested language for addressing the student.

The flowchart was developed through interviews with department heads as well as support units including: Academic Advising, Campus Safety, Counseling Center, Student Health and Wellness, Student Life, Student Success. Panels of students and faculty were convened by the Undergraduate Student Government Association and Teaching and Learning Center, respectively, to provide feedback on preliminary iterations. Suggested language for responding to students was approved by experts in counseling and mental health as well as the Office of General Counsel. Altogether, approximately forty stakeholders including faculty, students, administrators, and staff contributed input and feedback. This tool is designed for a resource-lean environment, and accordingly requires no workshops, training modules, database management, or staffing. The flowchart is available for public download on the Teaching and Learning Center's website and editable Word and Visio files are shared via KEEN's Engineering Unleashed website.

Introduction

University educators presently face the reality of teaching unprecedented numbers of students with anxiety, depression, and other limitations to mental health and wellness (MHW) [1], [2]. Despite the growing frequency and awareness of MHW issues for students, few instructors are trained to address these problems in the classroom [3], [4], [5]. Resources from university counseling centers [6] typically focus on acute crisis management and do not address more chronic issues. For example, requesting “wellness checks” from first responders (frequently law enforcement officers) may not be appropriate for a disengaged student who fails to attend class or submit assignments. Such students are still clearly struggling with personal problems. Faculty cannot and should not take on additional roles as counselors or therapists. However, instructors have the most frequent and consistent contact with students and can be the first to notice when students are struggling. This work presents a tool that equips instructors to identify problems and direct students to resources before problems escalate personally and academically.

Positionality statement

This work is informed by the author’s personal experience. The author has benefited from many generations of higher education and all the privilege it brings. During the pandemic shutdowns of 2020-2021, my household benefited from flexible work, financial security, and good physical health. Despite these advantages, I still struggled to cope with fear, anxiety, and despair associated with the news. I was able to recover from MHW struggles with (comparative) ease because of my training as an engineer, experimentalist, and researcher. Engineering gave me the analytical skills to refine a complicated problem into an objective function and constraints. Experiments gave me the habits and observational skills to test the impacts of actions on my own emotional regulation. Finally, research gave me the ability to independently learn new-to-me concepts of positive psychology. It took me many years to achieve this level of training, and I would not have been able to accomplish such a recovery as a teenager or young adult.

Similarly, this work is also informed by my identity as a parent of young children. Much like MHW situations, communicating with toddlers must acknowledge emotions while maintaining boundaries and focusing on actionable behavior [7]. Many months after the return to in-person learning, I realized that I had been implementing both parenting and MHW communication skills in the classroom with greatly improved confidence and student outcomes. I felt frustrated that I could have learned such important skills earlier, and even more frustrated at the lack of appropriate guides for others in my situation. In AY2023-2024, I participated in ELATES, a professional development program for academic leadership in STEM fields. For the required university-level project, I chose to distill my newfound knowledge into a product that could benefit faculty like myself. The final product and editable source files are available at Engineering Unleashed[8]. This work documents the project development process and outcomes.

Design criteria

Sanders et al interviewed 28 engineering faculty and staff and identified their barriers to supporting student MHW[9]. Their interviews uncovered cultural stigmas to discussing MHW, a lack of preparation /appropriate resources, a fear of saying the wrong thing, and overall burnout.

From this study as well as my own anecdotal experience, I propose that tools to help faculty support student MHW must be *simple, specific, and scalable*. Tools must be *simple* because professors and professional staff are subject to many competing demands in teaching, research, and service. Few university employees have the bandwidth and motivation to take courses or attend workshops on an entirely new set of skills. Instead, they need just-in-time training that fills an immediate need. Second, tools must also be *specific* and designed for novices. For example, most chemical engineering students are novices to abstract thinking, and they must build up abstract concepts like entropy through example calculations of turbine temperatures. Similarly, many faculty are novices to discussing MHW, and they must build up broad principles like “show empathy” through example responses to student situations. Finally, tools must be *scalable* without adding headcount or administrative burden. Demographic trends, reduced state funding, increased competition, and higher costs mean that many universities are facing budget cuts, and there are no resources for new student support programs. Fortunately, new student support programs are not needed in many cases; rather, students need to be better directed to existing supports.

Design process and resulting findings

The design process grew organically over six months of interviews and iterations. From September to October 2023, I began relatively unstructured interviews with close colleagues and College of Engineering leadership. This first round opened with a prompt such as “I’m working on a guide for dealing with student MHW situations, what do you think and who should I talk to?” From these interviews, common themes emerged. First, there was strong support for more guidance relating to student MHW. Faculty recognized the importance and growing frequency of “heavy situations” but were unsure how to respond appropriately to many situations. There was confusion about what constitutes a MHW crisis, when it is appropriate to intervene, how to direct students to services, and which student services were appropriate for various situations. Faculty shared anecdotes of challenging situations, some of which were handled better than others. Second, faculty were concerned about taking on unwanted responsibilities in MHW situations. Several individuals described personal willingness to address MHW topics in conversation, but expressed concern that colleagues would not be willing to do so without explicit instructions and legal protection.

In parallel, I conducted a separate round of interviews with staff and administrators in relevant campus offices including Academic Advising, Campus Safety, Counseling Center, Student Health and Wellness, Student Life, Student Success. Some of these offices were identified by interviewees in the first round. I asked each interviewee “what are the common student MHW situations you see/support and how should instructors best respond to them?” These interviews provided key distinctions between crises and non-crises, details about which offices handle which types of cases/incidents, and nuances of reporting information flow within the university.

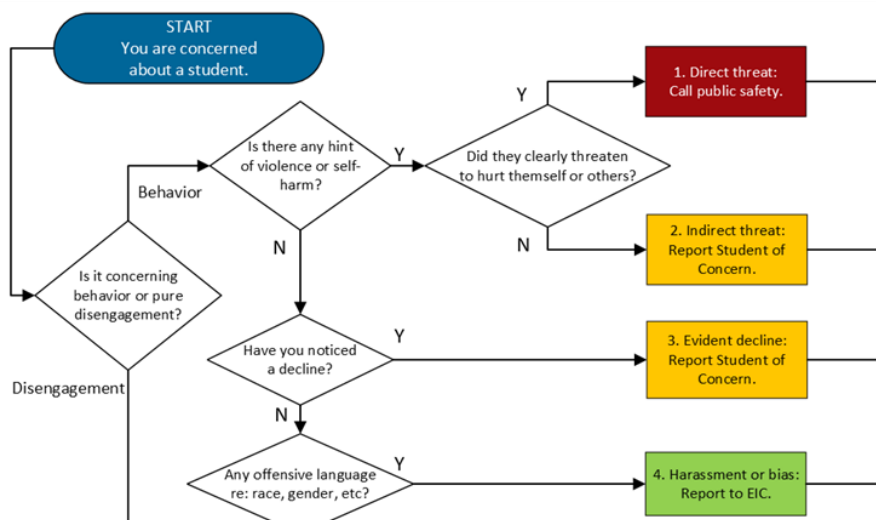


Figure 1: Excerpt from flowchart. Chemical engineering professors suggested in interviews that following technical nomenclature (oval terminus, diamond decisions, etc) would improve credibility with STEM instructors.

Based on this information, I developed a simple flowchart and companion document to guide instructors through challenging student situations from mental health crises to chronic disengagement. An excerpt is shown in Figure 1, and the full document is provided in Appendix A. To use the guide, a professor who is concerned about a student consults the flowchart to diagnose the situation. Is the concern behavior or disengagement? Is it sudden or chronic? Has the student mentioned violence or self-harm? Then, depending on the answer to those questions, the flowchart recommends an action such as calling Campus Safety, calling the Counseling Center, reporting an incident, or emailing the student. For each action, a companion document provides specific examples and, very importantly, suggested language for talking to the student. Interviews confirmed that speaking to students is the biggest hurdle for faculty, who wonder “what if I say the wrong thing? What if I make it worse?” Providing language that does not stigmatize or alienate students can help overcome this barrier.

Providing this specific language to instructors was also the aspect of the project that met the most resistance. Educational experts expressed concerns that giving faculty a script would lead to sterile, robotic responses that can do harm. Interestingly, these concerns were not expressed by any representatives from the Counseling Center or other student-facing support offices. The concerns were addressed by emphasizing that the flowchart provides just-in-time training for novices to MHW who might otherwise be intimidated into avoidance/inaction, and by changing the column label from ‘script’ to ‘suggested language’.

Other than the specific concern noted above, this project saw strong support and very little resistance. Administrators and staff from student support offices were extremely enthusiastic about the project and responded generously with time and feedback. Even when different offices recommended different responses to situations (for example, emailing an academic advisor versus reporting a Student of Concern via webform versus calling Public Safety), consensus was achieved quickly over a few emails or a single phone call. Generally, advisors and other student-

facing staff felt that, while no guide could fit every situation perfectly, any guidance to faculty would reduce barriers to connecting students with support services. Similarly, faculty felt that any specificity in navigating the myriad of MHW situations would be welcome, as long as it did not come with increased formal responsibility or liability.

The first draft of the flowchart was completed in November 2023. Dr. Johanna Inman, Director of the Teaching and Learning Center, then convened a faculty panel with a broad range of disciplines and experiences to review the product. This panel added several more user cases and identified some inconsistencies. Katie Zamulinsky, the Dean of Students, convened a committee of the undergraduate student government to review the flowchart. The students identified some language that they found judgmental, confusing, or otherwise needed improvement. Dr. Annette Molyneaux, Vice President for Student Health and Wellness, reviewed the suggested response language and provided more detailed examples of student behavior where needed in January 2024. The Office of General Counsel (OGC) approved the final version before dissemination to faculty in March 2024.

Dissemination and assessment

Dr. Erin McNamara Horvat, Senior Vice Provost for Faculty Advancement, became involved with the project at an early stage and used her institutional knowledge to guide the project through university approvals. For example, she invited a legal representative from the OGC to discuss potential pitfalls while the project was still in a prototype phase. The lawyer suggested additional context for the document and emphasized the importance of distinguishing between guidance and policy. Incorporating feedback from OGC early in the process facilitated final approval.

The final flowchart was hosted by the Teaching and Learning Center among other resources for inclusive teaching. It is now included in training materials for new incoming faculty and staff. Its production was disseminated to current instructors via the following; 1) email from the Vice Provost for Faculty Advancement to the Department Heads distribution list; 2) a short feature in Drexel Online, a weekly electronic newsletter for faculty and professional staff; 3) inclusion in communications from the Teaching and Learning Center; 4) a five-minute presentation slot at several college meetings. The final flowchart along with editable Word and Visio files is also available for download at Engineering Unleashed [8].

Because of the limited project timeline and competing priorities, minimal effort was applied to assessing the impact and distribution of the flowchart. Recording PDF download counts and other web analytics was considered but dismissed due to logistical limitations. However, since publishing the flowchart, I have been contacted by a handful of faculty from across the university, some of whom are complete strangers, with nice words about the project. These faculty have reported that they use the flowchart as a bookmarked reference to direct students to support offices and as templates to respond to student emails. Instructors at other institutions who found the material on Engineering Unleashed have reported similar applications.

Recommendations and future directions

For individuals seeking to adapt this resource to their own institution, we advise the following course of action. First, approach the counseling center, academic advising, or a related student support office. The project is unlikely to succeed without their engagement and knowledge. In parallel, find a titled dean, vice provost, or vice president to champion the project through administrative approvals. Other institutions may be less hierarchal and/or risk-averse than ours, but it is still important to consider liability in such delicate situations. The support of official leadership also supports dissemination when finished. Next, with the support of appropriate staff, revise the response guide for your institution. The classroom situations are unlikely to be institution-specific. However, student support offices and institutional structures can differ substantially, and there may also be unforeseen contextual differences. After revisions, we recommend convening a faculty and/or student panel with broad representation to identify any concerns before release. This exposure will also assist with dissemination.

Future directions could include adapting the current flowchart from undergraduate/classroom-focused to graduate students. Graduate student MHW concerns differ from undergraduate because time-scales are longer, because graduate students are also employees who are paid to meet certain levels of research productivity, and because deeper personal relationships between students and advisors are simultaneously more robust and more sensitive.

Acknowledgements

This work was supported by the Kern Entrepreneurial Engineering Network (KEEN, engineeringunleashed.com). We acknowledge over forty faculty, students, and staff who contributed to this project, particularly Dr. Erin McNamara Horvat, Vice Provost for Faculty Advancement; Dr. Annette Molyneaux, Vice President for Student Health and Wellness; and Dr. Johanna Inman, Director of the Teaching and Learning Center.

- [1] J. A. Reyes-Portillo *et al.*, “The Psychological, Academic, and Economic Impact of COVID-19 on College Students in the Epicenter of the Pandemic,” *Emerging Adulthood*, vol. 10, no. 2, pp. 473–490, Apr. 2022, doi: 10.1177/21676968211066657.
- [2] S. Abelson, S. K. Lipson, and D. Eisenberg, “Mental Health in College Populations: A Multidisciplinary Review of What Works, Evidence Gaps, and Paths Forward,” in *Higher Education: Handbook of Theory and Research: Volume 37*, L. W. Perna, Ed., in Higher Education: Handbook of Theory and Research. , Cham: Springer International Publishing, 2021, pp. 1–107. doi: 10.1007/978-3-030-66959-1_6-1.
- [3] J. R. Deters, J. A. Leydens, J. Case, and M. Cowell, “Engineering culture under stress: A comparative case study of undergraduate mechanical engineering student experiences,” *Journal of Engineering Education*, vol. 113, no. 2, pp. 468–487, 2024, doi: 10.1002/jee.20594.
- [4] S. A. Wilson and D. S. Goldberg, “Strategies for Supporting Engineering Student Mental Health,” *Chemical Engineering Education*, vol. 57, no. 2, Art. no. 2, Mar. 2023, doi: 10.18260/2-1-370.660-132290.
- [5] C. J. Wright, S. A. Wilson, J. H. Hammer, L. E. Hargis, M. E. Miller, and E. L. Usher, “Mental health in undergraduate engineering students: Identifying facilitators and barriers to

- seeking help,” *Journal of Engineering Education*, vol. 112, no. 4, pp. 963–986, 2023, doi: 10.1002/jee.20551.
- [6] A. Mowreader, “Decision and Resource Tree Aids in Supporting Student Mental Health,” *Inside Higher Ed*. Accessed: Dec. 03, 2024. [Online]. Available: <https://www.insidehighered.com/news/student-success/health-wellness/2024/04/05/why-college-campus-needs-referral-guide-employees>
- [7] J. Faber and J. King, *How to Talk so Little Kids Will Listen*. Simon and Schuster, 2017. Accessed: Dec. 16, 2024. [Online]. Available: <https://www.simonandschuster.com/books/How-to-Talk-so-Little-Kids-Will-Listen/Joanna-Faber/The-How-To-Talk-Series/9781501131639>
- [8] M. Tang, “Faculty flowchart for student disengagement and mental health,” *Engineering Unleashed*. Accessed: Apr. 07, 2025. [Online]. Available: <https://engineeringunleashed.com/card/4034>
- [9] J. Sanders, E. Johnson, J. Mirabelli, A. Kunze, S. Vohra, and K. Jensen, ““Not a Therapist”: Why Engineering Faculty and Staff Don’t Engage in Supporting Student Mental Health and Wellbeing,” *International Journal of Engineering Education*, vol. 40, no. 1, pp. 196–213, 2024.

Appendix A: Final flowchart product for faculty download

A Faculty Flowchart for Student Disengagement and Mental Health

Drexel University

Mental health problems in universities have skyrocketed. Professors cannot and should not become counselors and therapists, but they can be early observers of troubling behavior or withdrawal. This document provides guidance to instructors by matching broad situations to the appropriate response.

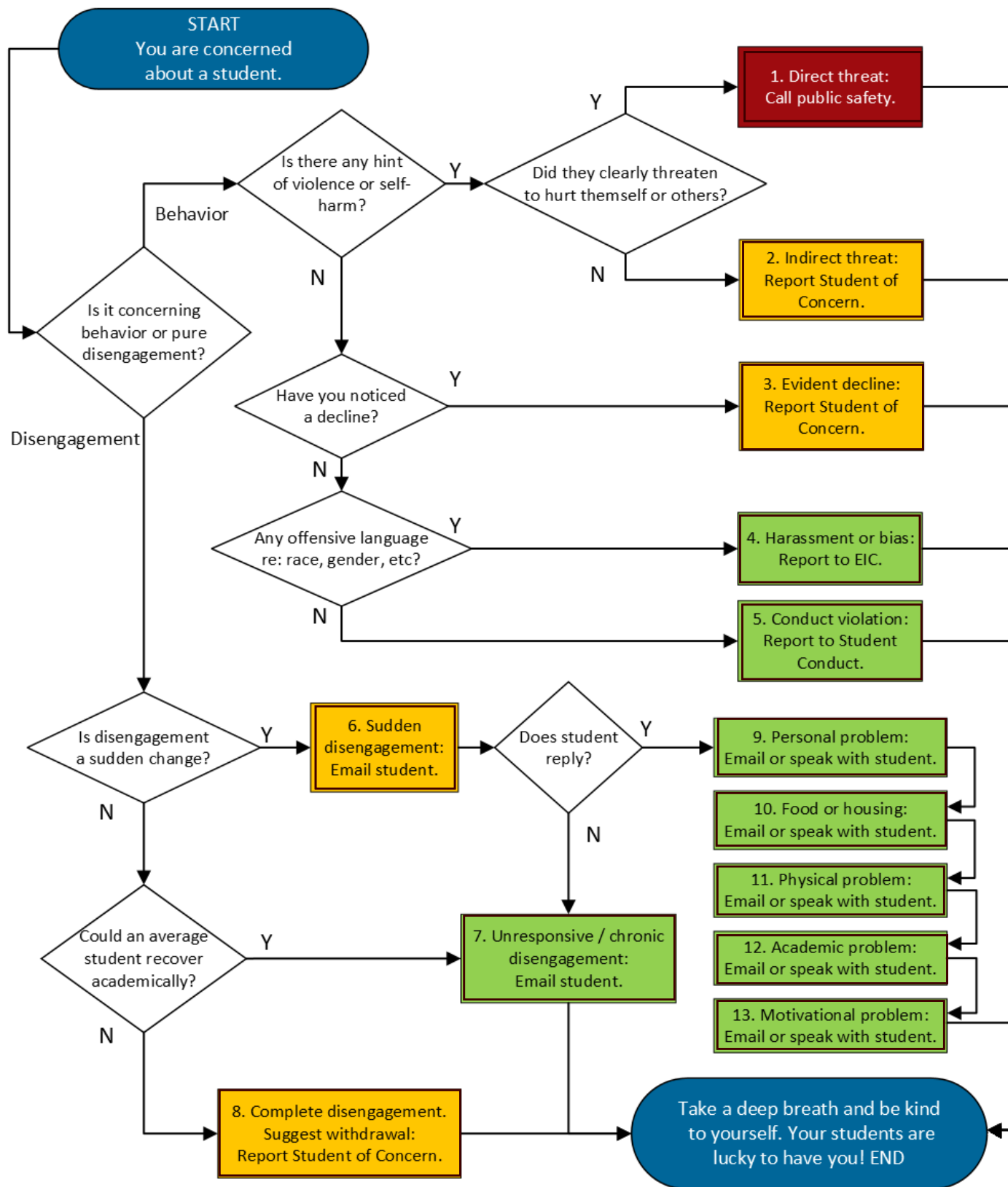
To use the flowchart, follow the decision tree on Page 2. Clicking on the colored boxes will jump down to more information with specific examples, recommended resources, and suggested language for addressing students. The red/yellow/green indicate the probability that the student is in a crisis that requires immediate action from medical professionals and/or police.

All student situations deserve consideration in context, so there may be individual exceptions. Faculty are encouraged to use their best judgement, to treat this document as guidance not policy, and to consult with senior colleagues for specific advice. **Teaching assistants, adjunct, and first-time instructors should consult with the instructor, department head, or a senior colleague as appropriate.**

This flowchart was developed in collaboration with over 40 faculty, students, and staff representing twelve academic departments and eight administrative units. Instructors are also encouraged to use resources for [faculty and staff](#) at the Drexel Counseling Center and resources for [inclusive teaching](#) at the Teaching and Learning Center.

Acknowledgements: We acknowledge helpful input from the following administrative and student support units: Counseling Center, Dean of Students, Office of General Counsel, Provost Office, Public Safety, Teaching and Learning Center, University Advising, and University Communications.

This project was completed through the Executive Learning in Academic Technology, Engineering, and Science (ELATES) program with funding from the Kern Entrepreneurial Engineering Network (KEEN).



The table rows below correspond to the colored boxes in the flowchart on Page 2. Instructors are encouraged to use their own language to personalize the suggested responses.

#	Situation	Examples	Response action and suggested language
1	Direct threat of harm to self or others	- Suicide note on exam or homework assignment - "I will kill myself/someone else if I fail this course" - "I can't take it anymore, I need to end this" - Physically unpredictable and/or obviously unwell	Call Drexel Public Safety, 215-895-2222. They will advise next steps.
2	Indirect threat to self or others	- Turning in exam with little drawings of bloody knives - "I would be better off dead" - "They will be sorry they messed with me" - Menacing or aggressive body language or tone	Report Student of Concern. - Student Life will follow up with student and faculty to advise next steps and provide support - In "reasons for report", choose "self-harm ideation" or "threats to others" from drop-down menu - <i>If appropriate</i>, ask student: "Are you thinking about hurting yourself or someone else?" If they say yes, then "My responsibility is to make sure that students are safe. Let's call the Counseling Center together and talk about what to do next." Counseling Center link
3	Evident decline	- Major decline in hygiene - Coming to class intoxicated - Generally erratic behavior	Report Student of Concern - Student Life will follow up with student and faculty to advise next steps and provide support - In "reasons for report", choose "mental health concern" from drop-down menu
4	Harassment or bias	- Racial slur heard in class or written on a board - Inappropriate physical contact - Suspected harassment or discrimination - See list at EIC website	Report to Equitable and Inclusive Culture - Faculty are mandatory reporters of discrimination, harassment, or sexual misconduct - If relevant, address class: "Everyone, I need to talk about something serious. Yesterday, someone [factual description of incident as appropriate]. This is completely unacceptable and I have reported it following university protocols. If you would like to discuss this with me in more detail, my office hours are XX or by email."

5	Conduct violation	- Disruptive or unruly in class - Personal insults or inappropriate language - See list at Student Conduct website	Report Student Conduct Incident - Save all written contact and alert dept head - If relevant, address class: “Everyone, I need to talk about something serious. Yesterday, someone [factual description of incident as appropriate]. This is completely unacceptable and I have reported it following university protocols. If you would like to discuss this with me in more detail, my office hours are XX or by email.”
6	Sudden disengagement	- Student who was active in class discussions misses 3 lectures without notice - Student was submitting assignments, stops completely	- Email student. CC advisor. “Dear [student], I noticed that you [haven’t been in class for a while/turned in the last few assignments/etc]. I hope everything is ok. My office hours are XX or by email. I am also cc’ing your advisor to make sure you know that there are many people here who can help. Best, Professor” To look up advisor, go to DrexelOne → Faculty → Class List → [Course] → [Student]. Advisor’s name will be listed with email address and photo in hyperlink.
7	Unresponsive/ Chronic disengagement	- Student hasn’t replied to attempt(s) to reach out - Student has rarely turned in assignments or come to class, but could probably catch up	Email student. CC advisor. “Dear [student], I hope everything is ok. My office hours are [details] or by email. I am also cc’ing your advisor to make sure you know that there are many people here who can help. If you do not reply, I will assume you do not want my help, which is also ok. Best, Professor” To look up advisor, go to DrexelOne → Faculty → Class List → [Course] → [Student]. Advisor’s name will be listed with email address and photo in hyperlink.
8	Complete disengagement	Student has never turned in assignments or come to class, would have to be academically exceptional to catch up.	- Email student suggesting withdrawal. - CC advisor and report Student of Concern “Dear student, I noticed you have not [submitted any assignments this term/attended any classes/etc]. I suggest you withdraw from the course by the deadline this Friday. I am cc’ing your academic advisor and strongly recommend that you meet with them to create a plan for future success.” To look up advisor, go to DrexelOne → Faculty → Class List → [Course] → [Student]. Advisor’s name will be listed with email address and photo in hyperlink.

9	Personal problems	Student discloses struggles with mental health, substance abuse, eating disorder, home problems, etc	- Email or speak to student. “Thank you for sharing with me. I’m glad you’re able to tell me about this. Before you go too much further, I want to make sure that I am the right person for you to have this conversation with. You will get the best support if you talk to a person who has training for this kind of situation and who also is not responsible for assessing your knowledge of [class] like I am. For instance Drexel’s counseling center has these resources: https://drexel.edu/counselingandhealth/counseling-center/overview/ Do you have someone like that right now?” - Depending on response, refer to advisor, Counseling Center, or report Student of Concern - If student discloses discrimination, harassment, or sexual misconduct, faculty are obligated to report to EIC To look up advisor, go to DrexelOne → Faculty → Class List → [Course] → [Student]. Advisor’s name will be listed with email address and photo in hyperlink.
10	Food or housing	Food insecurity, homelessness, basic needs	- Email or speak to student. CC advisor. “Thank you for sharing with me. I’m glad you’re able to tell me about this. You will get the best support if you talk to a person who has training for this kind of situation and who also is not responsible for assessing your knowledge of [class] like I am. I am looping in your advisor, who knows how to navigate the best resources for your situation.” - If appropriate, report Student of Concern. Select “Financial Concerns” from drop-down menu - Advisor/Student Life will be able to connect with Housing, Drexel Food Bank, or other resource To look up advisor, go to DrexelOne → Faculty → Class List → [Course] → [Student]. Advisor’s name will be listed with email address and photo in hyperlink.

11	Physical problems	Car problems, appendicitis, apartment problems, responsibilities at home	- Decide what accommodations you are willing and able to offer - Communicate accommodations clearly and in writing - If relevant, refer to Office of Disability Resources (e.g. help writing exams with a broken arm). See templates at ODR website - If appropriate (e.g. student will be missing all classes for injury) , report Student of Concern
12	Academic problems	Inadequate training from prerequisite courses, e.g. "I never saw this material before"	- Refer to office hours or discipline-specific support at ARC. - CC academicsuccess@drexel.edu "From what I see, it looks like you have to catch up on [material]. And that means that you will have to spend some extra time working with [resource: MRC, ARC, etc]. There are also professional academic coaches at Drexel, at CLASS. I would like to refer you to their services. It is going to be tough, but I think you are capable. How does that sound?"
13	Motivational problems	- Lack of interest in major - Debilitating procrastination - Inadequate study skills	- Refer to CLASS. - CC academicsuccess@drexel.edu "From what I see, it looks like you are capable of doing well but struggling with other things. We have a great service at Drexel called CLASS. It has academic coaches to help students get in control of their situation, find the correct resources, and make a plan to move forward. I'd like to refer you to their services. How does that sound?"