How are we doing?
Re-thinking our teaching?

Human Biology Program, University of Toronto
Defense Against the Dark Arts team
Do you think these reflect the attitudes of students here?
Simplified causes of stress

• Lack of resources and equity
• Perceived (insurmountable barriers)
Is response to stress an equity issue?

“It’s not fair that I have to deal with all this stress while I’m studying”

https://ww2.kqed.org/mindshift/2016/03/04/how-to-turn-on-the-part-of-your-brain-that-controls-motivation/
Yerkes-Dodson Curve

Performance

Level of Stress

Bored

Energised
Focused
Work feels effortless

Fatigue

Exhaustion

Health

Breakdown & burnout

CALM

EUSTRESS

DISTRESS

Seeing Improvement

Optimal Performance

Stress has profound effects
Is this our job? (our “real discussion”)

Uniqueness = problems

Environmental stressors
(work, home, neighborhood)

Major life events

Trauma, abuse

Perceived stress
(threat, helplessness, vigilance)

Behavioral responses
(fight or flight; personal behavior — diet, smoking, drinking, exercise)

Physiologic responses

Adaptation

Allostasis

Allostatic load

Bruce McEwen copyright 1998 Massachusetts Medical Society
We all have a role in our students’ mental wellness.

Introducing a perspective on student mental wellness that includes everyone.

From student leaders to faculty and staff, we can all participate in ensuring student mental wellness. Explore our 22 recommendations across five key areas to discover how you fit in.

See your role. Share our vision.

A supportive campus climate and environment encourages student engagement and has been found to have a positive impact on both academic performance and mental health. By creating conditions for meaningful participation in the University community, including the fluid and authentic exchange of ideas, such an environment helps students feel connected and facilitates holistic, integrated learning and development (CACUSS, 2013).

It is widely accepted that overall well-being is an essential element for effective learning and that “education, health and social outcomes are very closely interdependent” (Ansari & Stock, 2010, p. 2). Evidence indicates that excessive academic stress is negatively associated with academic performance and adversely impacts students’ mental and physical health. Experts suggest that this stress can be effectively moderated by “learned resourcefulness” or resilience. Learned resourcefulness is defined as “a set of skills for regulating internal events such as emotions that might otherwise interfere with the smooth execution of target behaviour” (Akgun & Ciarrochi, 2003, p. 288).
Recommendations

1. Create conditions inside and outside the classroom that support students’ overall well-being by providing opportunities for students to build community, especially within large classes. Identify existing best practices and highlight them.

2. Expand academic peer support/mentorship programming; consider ways of making peer mentoring/tutoring programs universal, with an “opt-out” option.

3. Create programming for graduate students that will foster a greater sense of community within and across departments and faculties, and enhance support for graduate students in their interactions with their supervisors.

4. Clearly articulate course goals and expectations and promote best practices in assessment and timely feedback. Curriculum Committees and Teaching and Learning Committees in each Division or Faculty should initiate discussions with faculty about the relationship between student stress and course and curriculum design.

5. Provide access to course materials through a variety of means to reduce barriers to students’ full participation. Support and encourage faculty to make course materials available through alternative platforms and syllabi accessible to students.

6. To help address the issue of stigma within the purview of curriculum and pedagogy, develop a recommended syllabus template to include statements related to both mental health and academic accommodation; include help-seeking and University resources.

7. Develop programming and training that supports faculty, graduate supervisors, and teaching assistants to create learning environments that encourage students to seek help without fear of judgment or repercussions.
Tony Xie • 35:07 there is one alpha unit and within that one alpha unit, there are subunits, and each subunit has 6 transmembrane domains (S1-S6).

Kinza Nasir • 30:00 Vernon yooo Vernon, it's just the one

Vernon Li • 16:08 Does anyone know if 4 alpha subunits make up the voltage gated sodium channel?
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Important dates

- **Oct. 11**: Term test
- **Dec. 6**: Final literature review
- **Oct. 18**: Initial paper & visual summary
- **TBA**: Final exam

Assessments

- Initial paper and visual summary (3%)
- Participation (10%)
- Term test (20-25%)
- Final 2000 word literature review (20-25%)
- Final exam (non-cumulative) (30-35%)

**Note:** Some students don't always perform as well on components of assignments due to a satisfaction in recognizing the weight of the requirement. 20% or 30% and the final assessment 20 or 35% in the final year.

**Grading:** 100% in the final exam drops the final exam to 30%.

**Course modules**

- **Sept. 19**: Your gut initiation in this course
- **Sept. 26**: The gut microbiome and the brain
- **Sept. 27**: Mental health and inflammation
- **Oct. 4**: Depression, anxiety, and why it matters
- **Oct. 11**: Term test (MCQ & SA)
- **Oct. 18**: Biology of a healthy brain: exercise
- **Oct. 25**: Biology of a healthy brain: sleep modulation
- **Nov. 1**: Biology of the mind: placebos – why?
- **Nov. 8**: Fall break
- **Nov. 15**: How do diseases of the brain spread?
- **Nov. 22**: Stem cell in neurobiology
- **Nov. 29**: Focused ultrasound and the brain
- **Dec. 6**: In-class review

**Lecture recordings**

Lecture recordings will be streamed live. You are expected to attend and record to help you study. Audio recordings will also be provided. If you miss your lectures, you are expected to come to class – you can't make up your notes.

**Office hours**

Office hours will be held weekly. Please come prepared with specific questions and discussion items.

**Grading rubric**

- **100%**: Critical analysis, imagination, originality and breadth of understanding
- **80%**: Synthesis, information, analysis, and application
- **60%**: Application, information, analysis, and synthesis

**Contact information**

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- TA: Vanessa Gobara, James Kim, Cherrie Cheng, and Caroline Park

**Final literature review rubric**

- **100%**: Style (7%)
- **80%**: Background (6%)
- **60%**: Materials and Methods (5%)

**Grading criteria**

- **40%**: Results
- **30%**: Significance & Conclusions
- **30%**: Critical Analysis
- **10%**: Future Direction

**Additional resources**

- HMB 300 Course Website
- MyCourses

**Advance notice**

There will be no mandated textbook. However, I have provided you with additional study materials upon request.
Practical terms? What barriers?

Student facing
- Flexibility in grading
- No cumulative exams
- Reduce impact of final exams
- Do you *really* need final exams?
- More practice in class and online
- Unlimited access to resources
- More office hours

Instructor facing
- Much more time and effort??
Be Flexible
Acknowledgements

• My colleagues within the Human Biology Program – notably Gianna Leggio, Dana Patterson, Ron Wilson Jr., Alistair Dias and Maria Papaconstantinou

• Students in our courses providing feedback on anonymous surveys and taking an active interest in next generation active learning and keeping their classmates in mind