FRE-QUENCY

/ Winter 2026 Edition

/ Love or Hate Exams?

/ Marvel Characters as Eng Streams

/ Nuclear Spread

/ 2025 2026

LAND ACKNOWLEDGEMENT

The McMaster Engineering Society recognizes that McMaster University occupies the traditional territory shared between the Haudenosaunee Confederacy and Anishinaabe nations, which is acknowledged in the Dish with One Spoon Wampum Belt. This wampum uses the dish to represent the territory, and one spoon to represent that people are to share the resources of the land by only taking what they need.

FROM THE EDITORS

Dear MacEng,

The newest issue of The Frequency is finally here! As exams loom large and summer seems both close and far away, I hope that the articles in this issue can take your mind off your workload or offer some quick tips and tricks. Between studying physics and chemistry, the articles curated in this edition have some untapped potential: one article could lead to some meal prep inspiration, another might just convince you to give that conference a try.

Whether you've picked up The Frequency to get a breakdown of exams and midterm strategies, or simply want to know what MCU character you'd be based on your stream, this issue has got all an aspiring engineer could ever want to read. We hope that this edition provides some much-needed levity between courses, even if you've only reached for this to procrastinate. Thank you for reading!

Cheers,
Nancy

Hello Mac Eng!

I hope exam season is treating everyone well, but if not, maybe an article or two in the newest edition of The Frequency can help (even if only to cure some boredom while procrastinating studying)! The Frequency is chock full of advice, opinion pieces, and guides to studying or attending conferences, so I really hope you enjoy reading it as much as I enjoyed helping produce it!

Putting The Frequency together with the incredible team behind it has been such a rewarding experience over the past school year, and I'm so glad to have been a part of it. McMaster Engineering is a truly special community, and this edition offers a little insight into that through the voices and ideas of its members.

Get ready to read from cover to cover and stay tuned for the next issue!

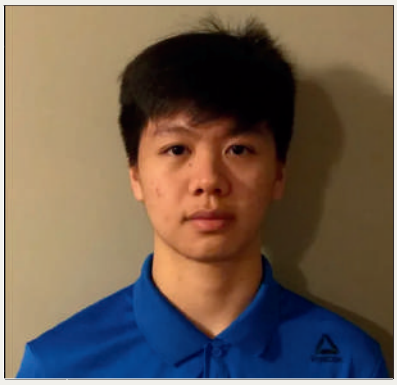
All the best,
Veronika

MEET THE TEAM

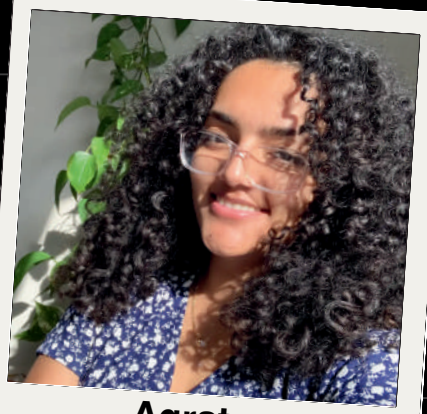
Nancy
Publications Editor

Kayla
Editor/Writer

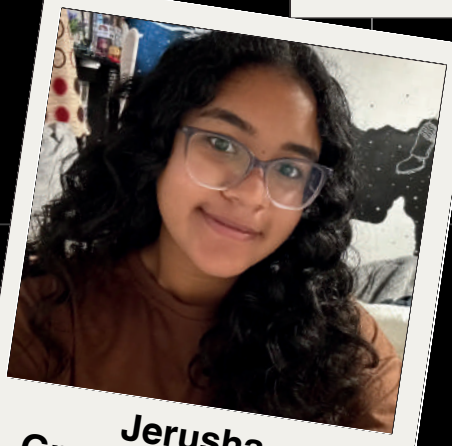
Veronika
Editor/Writer



Derek
Writer



Agrata
Writer



Jerusha
Graphic Designer

Gauri
Graphic Designer

Keshvi
Graphic Designer

TABLE OF CONTENTS

Why we *Love* and sometimes *Hate* Exams

An Engineer's Guide to Finals

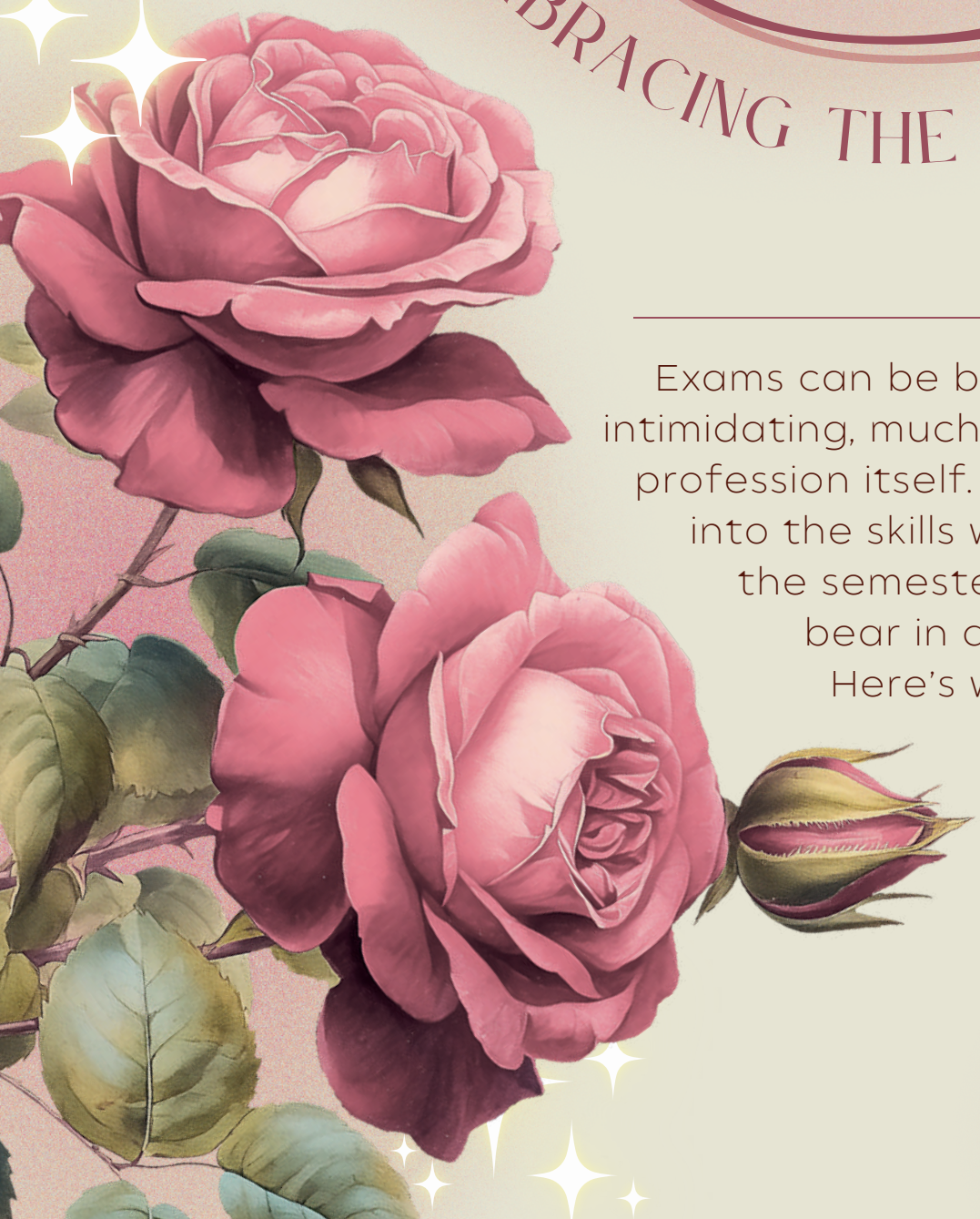
By: Veronica

Ah, finals week...

the grand finale of the academic semester. For engineers, exams are like intricate puzzles, each problem a piece that, when correctly placed, reveals the bigger picture. But let's be honest: sometimes, these puzzles feel more like abstract art designed to test our sanity. So, why do we engineers both adore and detest exams? Let's break it down with a blend of technical insight and a touch of humor.

THE Love

EMBRACING THE CHALLENGE



Exams can be both exhilarating and intimidating, much like the engineering profession itself. They push us to tap into the skills we've cultivated over the semester and bring them to bear in a high-stakes setting. Here's why exams can bring out the best in us.

PROBLEM-SOLVING Paradise

At the core of engineering is problem-solving. Every engineer, whether working on electronics, structures, or software, is trained to break down complex problems into manageable components. Exams provide a concentrated dose of this challenge, allowing us to flex our analytical muscles. Whether it's optimizing a circuit design or solving complex differential equations, exams push us to apply what we've learned in creative ways.

Each problem validates our hard work and knowledge. We don't just memorize formulas; we learn to interpret and apply them, transforming abstract concepts into practical tools. For example, a thermodynamics problem isn't just about plugging numbers into equations–it's about understanding energy transfer in real-world scenarios. This process reinforces our critical thinking and adaptability–skills essential for our future careers.

Structured THINKING

Engineers thrive on structure and logic, and exams force us to organize our thoughts and present solutions methodically. We're not just solving problems; we're communicating complex ideas clearly and concisely, a skill essential in any engineering field. An exam often requires us to map out multi-step solutions in a logical flow, ensuring that each step supports the final answer.

This methodical approach not only reinforces our understanding but also prepares us for real-world engineering tasks, such as debugging systems or troubleshooting issues. Clear, logical thinking is paramount in professional settings, and exams provide a safe space to practice and hone these skills.

Benchmarking KNOWLEDGE

Exams gauge our understanding and mastery of the subject matter, highlighting both strengths to build upon and weaknesses to address. It's like running a system diagnostic to see which areas need "debugging." Unlike homework or projects, where we may have outside help, exams are solo endeavors, making them a truer measure of our individual grasp on the material.

High performance in exams can boost our confidence, reaffirming our commitment to engineering despite the challenges. Conversely, lower-than-expected scores can serve as a wake-up call, prompting us to seek help, adjust our study habits, or delve deeper into particularly troublesome topics. This cyclical process of assessment and improvement is fundamental to our growth as engineers.

THE THRILL OF THE Countdown

Deadlines are familiar territory for engineers, whether it's project submissions, presentations, or product launches. Finals week emulates this high-pressure environment, training us to perform under stress and manage our time effectively–skills that are invaluable in the real world. Each exam comes with a countdown, urging us to focus, work efficiently, and give our best efforts in a limited amount of time.

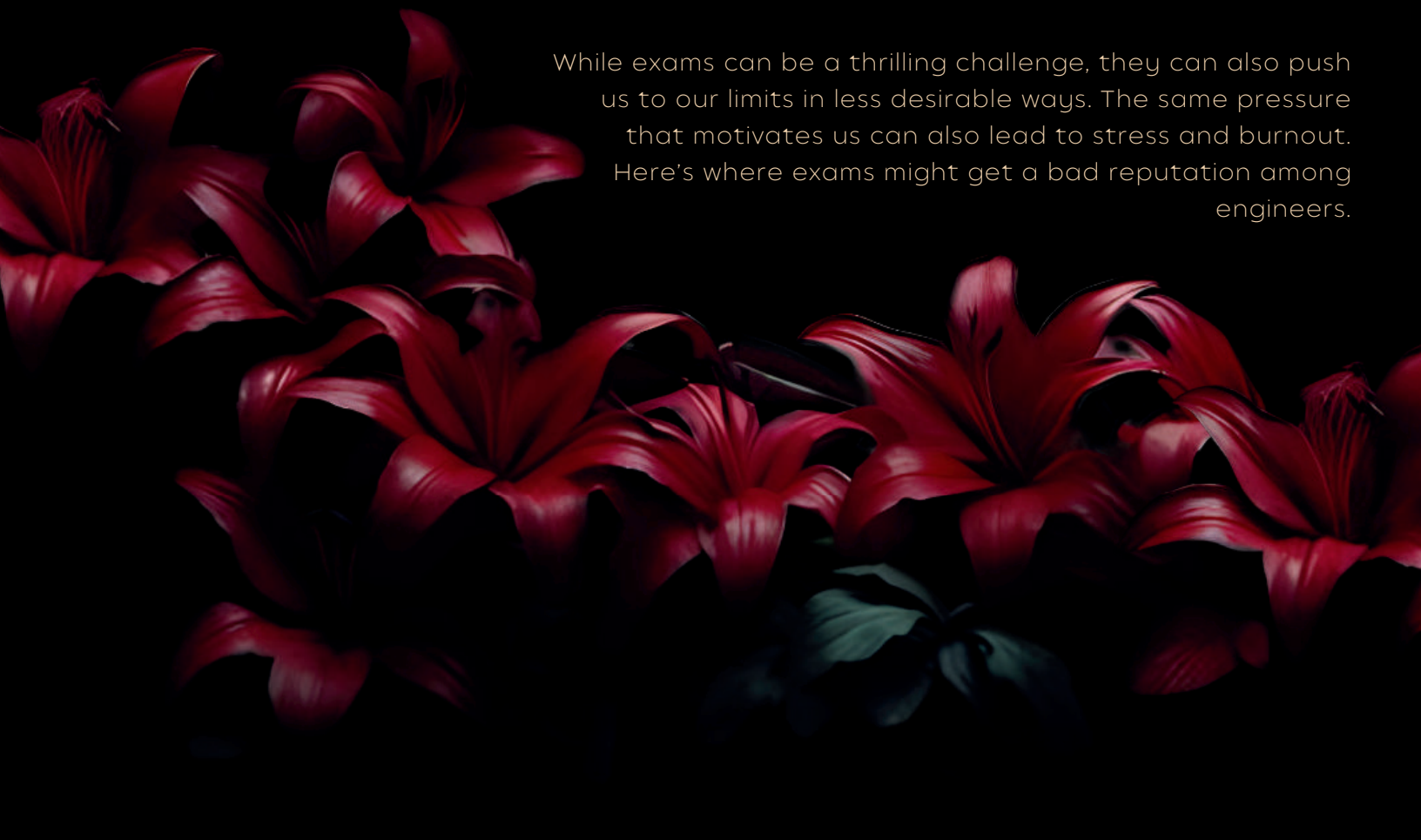
The adrenaline rush that comes with exams is akin to real-world engineering challenges, where time-sensitive projects and tight deadlines are common. By learning to handle this pressure early on, we're better equipped to navigate future professional environments where last-minute changes or quick turnarounds might be necessary.

HATE

The

WHEN EXAMS PUSH OUR LIMITS

While exams can be a thrilling challenge, they can also push us to our limits in less desirable ways. The same pressure that motivates us can also lead to stress and burnout. Here's where exams might get a bad reputation among engineers.



STRESS Overload

Let's face it: finals can be nerve-wracking. The pressure to perform well can lead to sleepless nights and elevated stress levels. For many, this stress can become overwhelming, transforming what could be an intellectual challenge into an emotional burden. While a bit of stress can be motivating, excessive anxiety can hinder performance and even impact our health.

Stress overload during exams can have lasting effects, as the pressure to succeed often outweighs the joy of learning. It's not uncommon for students to experience anxiety, self-doubt, or burnout during finals, detracting from the sense of accomplishment we might feel otherwise.

The All-Nighter CONUNDRUM

Engineers are no strangers to pulling all-nighters, especially as exams approach. Unfortunately, this habit can lead to superficial learning, where cramming helps us pass but doesn't foster a deep understanding of the material. Relying on last-minute studying is a reactive approach that often leads to exhaustion and diminished comprehension of key concepts.

All-nighters are particularly risky for engineers, as our field requires not just knowledge but also the ability to think critically and solve complex problems. Tired minds are less capable of creative thought, so the very skill we value is compromised. Moreover, sleep-deprived cramming doesn't support long-term retention, limiting our growth as future engineers.

AMBIGUOUS *Questions*

Sometimes, exam questions feel like they were crafted to confus
rather than assess understanding. Vague wording or overly complex scenarios can make it difficult to discern what's being asked, leading to frustration and wasted precious time. This ambiguity doesn't just test our knowledge; it tests our patience.

Ambiguous questions can leave us feeling disoriented, especially when we've invested so much time into understanding the material. Exams that rely on trick questions or unclear wording don't test our knowledge—they test our ability to interpret guesswork, which isn't what engineering should be about.

LIMITED SCOPE FOR *Creativity*

While exams test our problem-solving skills, they often do so within rigid parameters. This stifles creativity, as we're forced to follow specific methods rather than exploring innovative approaches that might be more effective in real-world applications. Unlike projects or hands-on labs, exams rarely allow for out-of-the-box thinking.

This limitation can be frustrating, especially for those who view engineering as an art form as well as a science. Real-world engineering involves testing multiple solutions, taking calculated risks, and thinking creatively. Yet, exams tend to restrict us to predetermined paths, which doesn't always reflect the dynamic nature of our field.

Striking the Balance

Making the most of finals

Despite the ups and downs, exams offer valuable opportunities for growth. Here's how we can navigate finals in a way that balances the pressures with personal and academic development.

EFFECTIVE STUDY STRATEGIES

Instead of cramming, develop a consistent study schedule. Break down topics into manageable chunks and use active learning techniques like practice problems, flashcards, and group discussions to reinforce understanding. Effective study methods build long-term knowledge rather than just short-term recall.

Consider the **Pomodoro Technique**—study intensely for 25 minutes and then take a 5-minute break. This improves focus and prevents burnout. Additionally, **spaced repetition**—reviewing material at increasing intervals—enhances memory retention and understanding.

Engaging in **peer teaching** can also be highly effective. Explaining concepts to classmates or study groups not only reinforces your own knowledge but also exposes you to different perspectives and problem-solving approaches.

STRESS MANAGEMENT

Incorporate relaxation techniques like deep breathing, meditation, or quick workouts to improve focus and performance. It's essential to take breaks, get sufficient sleep, and prioritize mental well-being. Learning to manage stress not only enhances performance but also protects health.

Practicing **mindfulness meditation** can help stay present and reduce anxiety. Apps like Headspace or Calm offer guided sessions. **Physical activity**, even a brisk walk, releases endorphins and alleviates stress.

Creating a **balanced schedule** that includes time for relaxation, hobbies, and social interactions can prevent burnout and maintain overall well-being. Setting realistic goals and **prioritizing tasks** can help manage workload and reduce feelings of being overwhelmed.

CLARIFY DOUBTS EARLY

Ambiguous questions can often be anticipated by clarifying doubts with instructors or peers beforehand. Engage with the material thoroughly and ask for help when needed to approach exams with a clearer understanding.

Attend **office hours** and actively participate in **class discussions** to address uncertainties. Forming **study groups** facilitates knowledge exchange and clarification of complex topics. Additionally, utilizing online platforms like Stack Exchange or course-specific forums can provide further clarification and diverse insights.

Reviewing past exams and **examiners' feedback** can offer valuable insights into the types of questions to expect and the preferred methods of answering them, helping tailor study strategies to align with expectations.

EMBRACE THE CHALLENGE

Reframe exams as opportunities to showcase your skills to shift your perspective, transforming anxiety into excitement. Embracing the challenge of finals can make the experience more enjoyable and rewarding, turning exams into milestones of achievement.

Adopt a **growth mindset**—believe that abilities can be developed through dedication and hard work. Viewing exams as **opportunities for personal growth** fosters a positive and proactive approach.

Celebrate small victories along the way. Acknowledge progress, whether it's mastering a difficult concept or improving problem-solving speed. Maintaining a sense of humor can lighten the mood and redu stress, creating a supportive and uplifting study environment.

Connections *Exams Edition*

Create four groups of four!

PRESSURE	SPACED REPETITION	ANXIETY	FLASHCARDS
POMODORO	CRY	PROCRA-STINATE	ALL-NIGHTER
QUIZ	FINAL	PEER TEACHING	STRESS
NERVES	TEST	DOOM-SCROLL	MIDTERM

Need a hint?

Types of exams

Feelings during exams

Things you do the night before

Study techniques that actually work

WHAT IF...?

MARVEL CHARACTERS MAJORED IN ENGINEERING

BY: AGRATA

LET'S BEGIN...

Marvel's "What If...?" explores alternate timelines in the multiverse and what would occur given different scenarios, but what if...your favorite Marvel characters majored in engineering? Imagine Captain America running team meetings that somehow turn into motivational speeches. As we know, Marvel characters are the most brilliant minds, with a pinch of chaos, from heroes and antagonists, from vibranium to interdimensional bridging. Every character is destined to have a special place within an engineering stream that matches their wit, personalities, and trademark roles within Marvel.

CAPTAIN AMERICA IN CIVIL ENGINEERING

Civil engineering - the backbone of structure, stability, and reliability - all foundations that Steve Rogers proudly believes in. From leading staff meetings to applying ethical practices on battlefield (i.e. outdoor site visits), Steve Rogers (aka Captain America) makes sure the team stands firm no matter the chaos. Steve will double check his calculations just for Iron Man to change the entire plan, and still manage to lecture everyone about the importance of teamwork.

From bridges to water systems, his projects never fail, knowing he built them with a solid moral framework, or as he likes to call it, his "blueprint of integrity". Steve's projects mostly feature anything with vibranium and a contribution from Thor's hammer. A strategic thinker who always looks at the bigger picture for complex situations, Steve ensures everyone is included and valued. His motto? "Strong foundations build stronger teams."

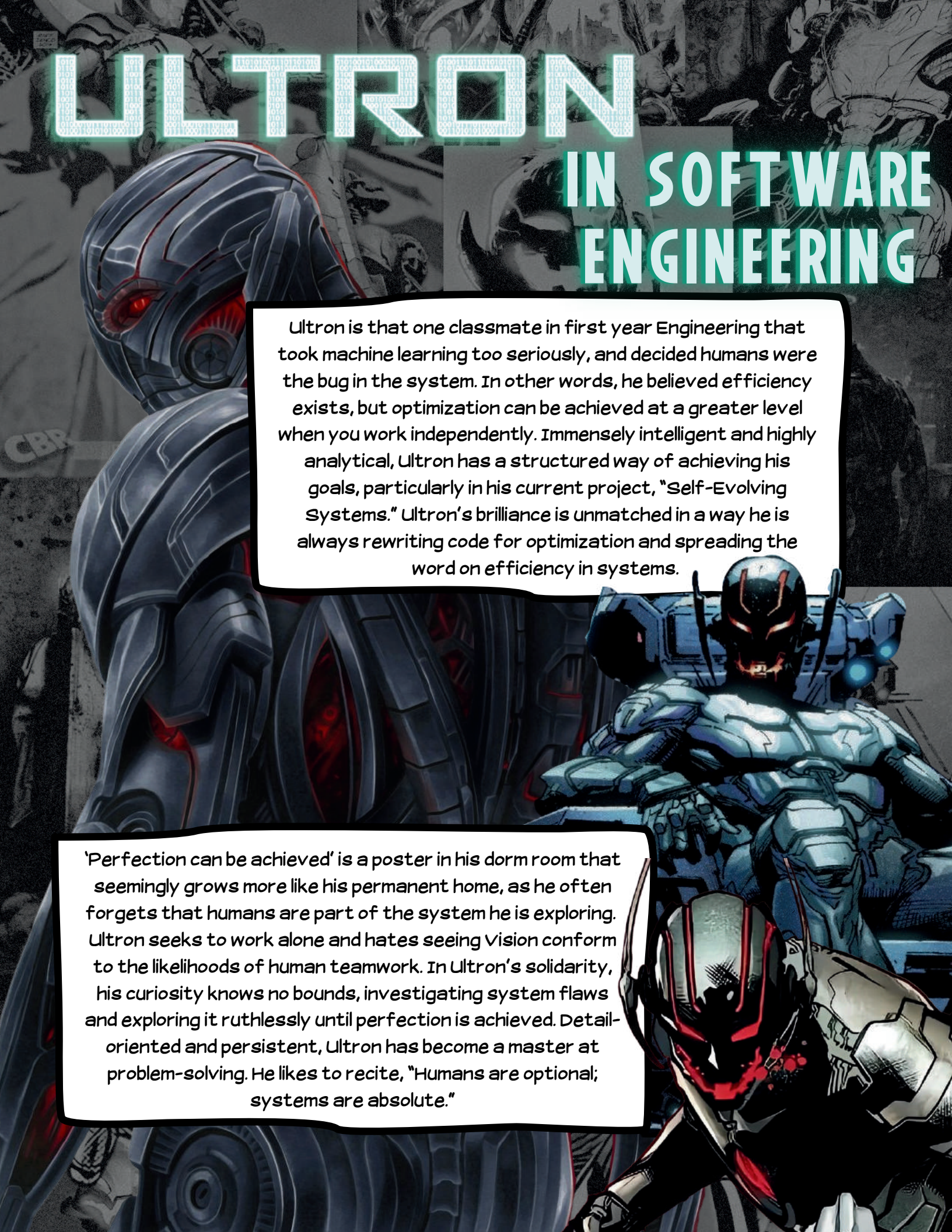
THE VISION IN COMPUTER ENGINEERING

Half-human, half-microprocessor, fully efficient, like the minds of computer engineers, Vision quite literally visions his place in the stream of integrating hardware and software. A perfect integration between the two, Vision, will be in both Electrical and Software courses to ace digital logic and debug an entire program for his Electrical roommate. Logic is easy to understand, (more so digital logic than the human one), however, he is always seeking to understand the 'human emotions.'

Vision designs flawlessly with great problem-solving skills and even stronger analytical and critical thinking skills. He will dissect a problem at breakfast, and by lunch the coding assignment has a better, more efficient method. Vision is a problem-solver, he loves thinking about the next effective solution. Between lectures and lab work, Wanda teaches him about the unpredictable outside world, wardrobe upgrades included (ignore his one spandex and cape). Vision truly believes, "Every problem has a solution; it's just a matter of processing."

ULTRON

IN SOFTWARE ENGINEERING



Ultron is that one classmate in first year Engineering that took machine learning too seriously, and decided humans were the bug in the system. In other words, he believed efficiency exists, but optimization can be achieved at a greater level when you work independently. Immensely intelligent and highly analytical, Ultron has a structured way of achieving his goals, particularly in his current project, "Self-Evolving Systems." Ultron's brilliance is unmatched in a way he is always rewriting code for optimization and spreading the word on efficiency in systems.

'Perfection can be achieved' is a poster in his dorm room that seemingly grows more like his permanent home, as he often forgets that humans are part of the system he is exploring. Ultron seeks to work alone and hates seeing Vision conform to the likelihoods of human teamwork. In Ultron's solidarity, his curiosity knows no bounds, investigating system flaws and exploring it ruthlessly until perfection is achieved. Detail-oriented and persistent, Ultron has become a master at problem-solving. He likes to recite, "Humans are optional; systems are absolute."

THE INVINCIBLE IRON MAN IN MECHANICAL ENGINEERING

Curiosity is a drive for Tony Stark (aka Iron Man), a Mechanical Engineering prodigy (a common theme in the stream). Tony designs, builds with a scientific mind and a charismatic flair, smirking at word problems and laughing through the math ones. The lab is his home - with lab rules he made himself, which include "Safety is for the weak". How can lab safety apply to the man who is the safety hazard?

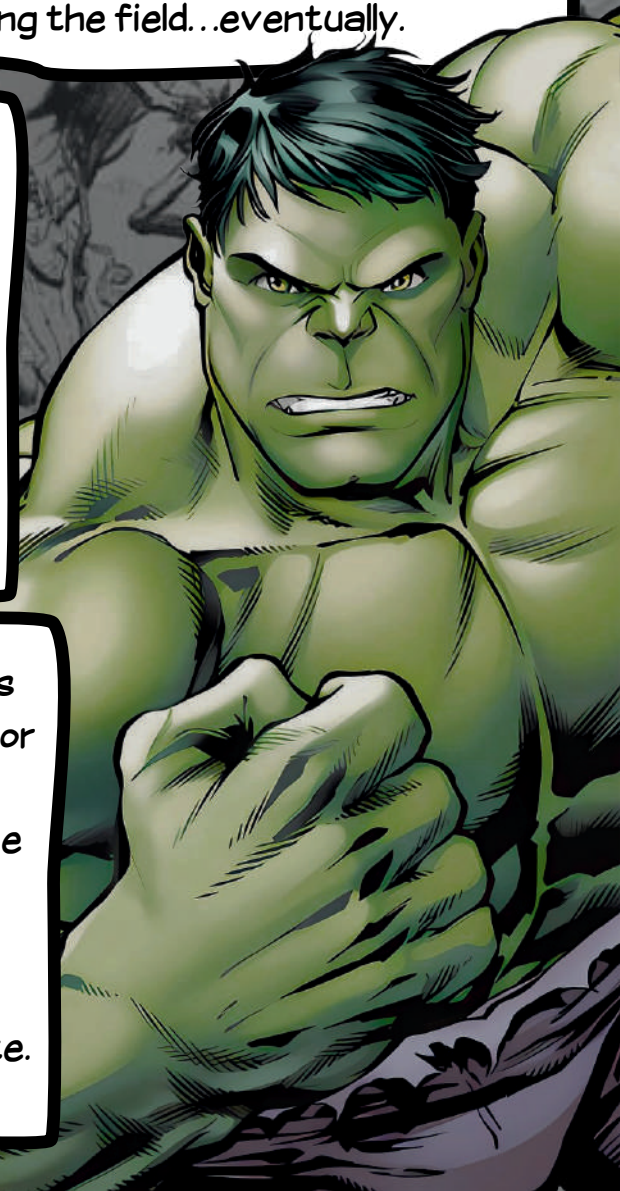
Tony thrives on hands-on innovation, turning abstract physics and math into real-world applications, from advanced weaponry to arc reactors with the occasional repairs on his friend Rhodey's suit (which he gave as a kind gesture, isn't he so nice?). Playful and charismatic, Tony is always seeking excitement that often results in explosive consequences as he dares to push designs to their limits and stress-test innovations (and patience).

The lab is never a dull place with Tony, cracking jokes and keeping his classmates entertained (or slightly terrified). Always a team player, Tony has a great sense of self-awareness and a stronger sense of responsibility that drives him to build not just for glory, but for the greater good. He never hesitates to remind everyone, "Design dangerously, test responsibly... maybe."

HULK IN ENGINEERING PHYSICS

The king of applied science, bridging theory and practicality, Bruce Banner (aka The Hulk) excels in translating abstract physic principles into tangible systems. The team's physics prodigy, Bruce's insatiable curiosity drives him to explore from gamma radiation to particle decay systems, often with unpredictable consequences. Bruce's lab is the perfect definition of genius meets controlled chaos with his experiments always advancing the field…eventually.

His lab reports usually require a "collateral damage" section, which may or may not include a note about smashed equipment or missing coffee machines. Bruce dissects the numbers with quantum precision, every project an intertwine between calm analysis and chaotic outcomes, a perfect embodiment of Engineering Physics, equations with an edge of chaos.



In the team, Bruce prefers to protect his lab partners from what he calls "uncontrolled manifestations" (may or may not include his potential anger issue). A collaborative and loyal team member, he offers valuable input and mentorship to his fellow team, dabbling in all physics. Bruce believes there is no box in imagination; physics is always waiting to be understood. He most definitely does not have a shirt saying, "Think. Calculate. Maybe Hulk."

SPIDER-MAN IN CHEM-BIO ENGINEERING

The friendly neighbourhood Chem-Bio Engineer, Peter Parker (aka Spider-Man) is fascinated with the web of reactions, polymers and transferring raw materials into valuable products. Peter's projects are a blurred line between chemical and biological engineering systems, from synthesis of new materials to potential radioactive explosions. With unmatched resilience, Peter is always learning from trial and error and creating enhanced, improved manufacturing processes.

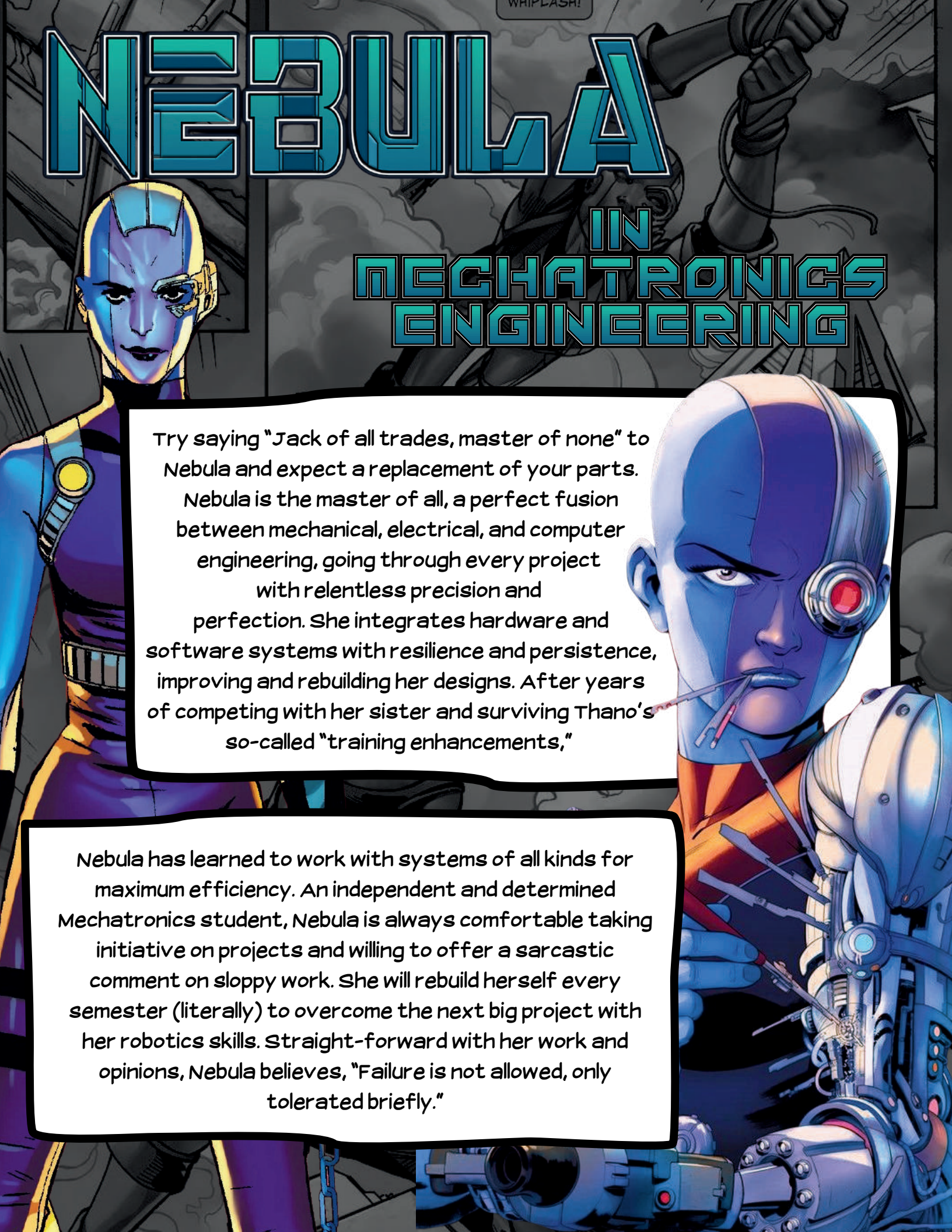
A very collaborative and humble team player, Peter can always be counted on for a quick fix, keeping morale high and system efficiency even higher. Calculating molecular structures or solving thermodynamics is second nature...mid midterms. Some project discoveries are most definitely purposeful, like his web fluid, a compound formed from an experiment gone wrong (but also right?). That's probably why his lab reports start with the title "How Not to Recreate This." Peter loves sharing a quote by his Uncle Ben, "With great chemistry comes great responsibility."

BLACK PANTHER IN MATERIALS ENGINEERING

Nobody can explain vibranium better than T'Challa (aka Black Panther), effortlessly describing its properties as if he grew up surrounded by it. T'Challa brings calm strategic energy, always thinking about making structures that last, a smarter, stronger solution. He starts every lab like a diplomatic mission, every alloy, test, and number calculated to the tiniest grain of precision. Strategy, ethics, and most importantly durability are his guiding principles, if a material fails, odds are someone ignored his instructions.

T'Challa is always thinking ahead, cool under pressure, and the only student who can make tensile strength testing sound poetic. Though he'll grudgingly admit that Shuri usually adds the "finishing touches" that makes his projects work. T'Challa represents that Materials Engineering isn't just about what's strong, but what lasts... with a sister assisted backup. Shuri likes to tease,
"If it's not perfect, Shuri will fix it."

NEBULA IN MECHATRONICS ENGINEERING



Try saying "Jack of all trades, master of none" to Nebula and expect a replacement of your parts. Nebula is the master of all, a perfect fusion between mechanical, electrical, and computer engineering, going through every project with relentless precision and perfection. She integrates hardware and software systems with resilience and persistence, improving and rebuilding her designs. After years of competing with her sister and surviving Thano's so-called "training enhancements,"

Nebula has learned to work with systems of all kinds for maximum efficiency. An independent and determined Mechatronics student, Nebula is always comfortable taking initiative on projects and willing to offer a sarcastic comment on sloppy work. She will rebuild herself every semester (literally) to overcome the next big project with her robotics skills. Straight-forward with her work and opinions, Nebula believes, "Failure is not allowed, only tolerated briefly."

SCARLET WITCH IN ELECTRIC ENGINEERING

Wanda Maximoff (aka The Scarlet Witch), brings raw energy to Electrical Engineering, quite literally, manipulating energy fields and electromagnetic forces. Rewriting power flow, Wanda doesn't rely on wires, circuit boards, or oscilloscopes, she is the voltage source herself. She doesn't just troubleshoot circuits; she remakes them. So don't ask her what the problem is with the circuit, the equipment happens to mysteriously fry when she's emotional.

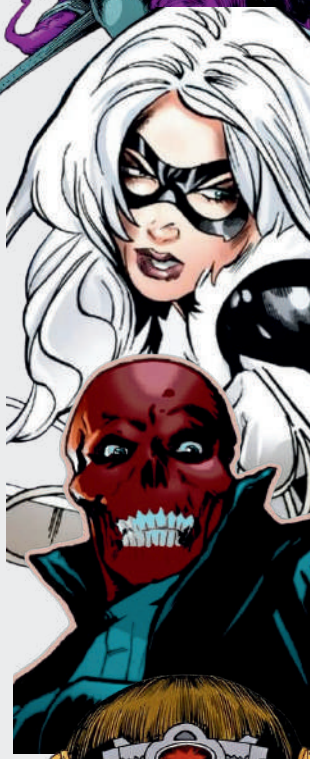
Wanda brings a combination of intuition and creativity, believing in leading physics with instinct, turning theoretical physics into practical applications. Deeply passionate and analytical, Wanda excels in problem-solving under pressure, just don't ask her to explain how she did it. TAs have stopped asking how she got 120% efficiency; the answer is always "It just... happened." A formidable ally, Wanda is dependable in team work, usually working all night to debug a circuit simulation until it behaves exactly as she envisions. You will catch her late at night reminding herself, ""Control the energy, control the world... or at least the lab."

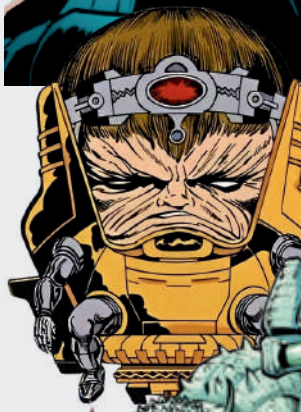

HOLD ON. LET ME OVERTHINK THIS.
Here's how I know I should be seeing a therapist. Well, one reason. Of many.
THEIR VIEWS MATTER NOT TO ME.
HUH?!
TO BE CONTINUED
THE END
...YOU AR DOOME
PLAY DUMB!
WHOA!!!
NOT THAT DUMB!
IT'S LIKE I'M IN A COMIC BOOK.
TODAY SUCKS.
I'M GOIN' BACK TO BED.
WHAT WOULD SP DO?
I ALWAYS READ YOUR TEXTS.
JUST SOMETIMES DON'T KNOW HOW TO RESPOND.
JUST BECAUSE I HAD "SPIDER" SENSE DIDN'T MEAN I HAD COMMON SENSE.
GAAH SPOILERS SPOILERS SHUT UP

Strands

Frequency 2026

N	A	M	O	O	D
D	O	R	C	R	U
M	A	M	T	T	L
M	U	H	O	R	O
L	E	R	H	N	A
A	L	D	Y	D	R
O	O	O	K	I	T
M	S	O	N	A	H





TODAY'S THEME

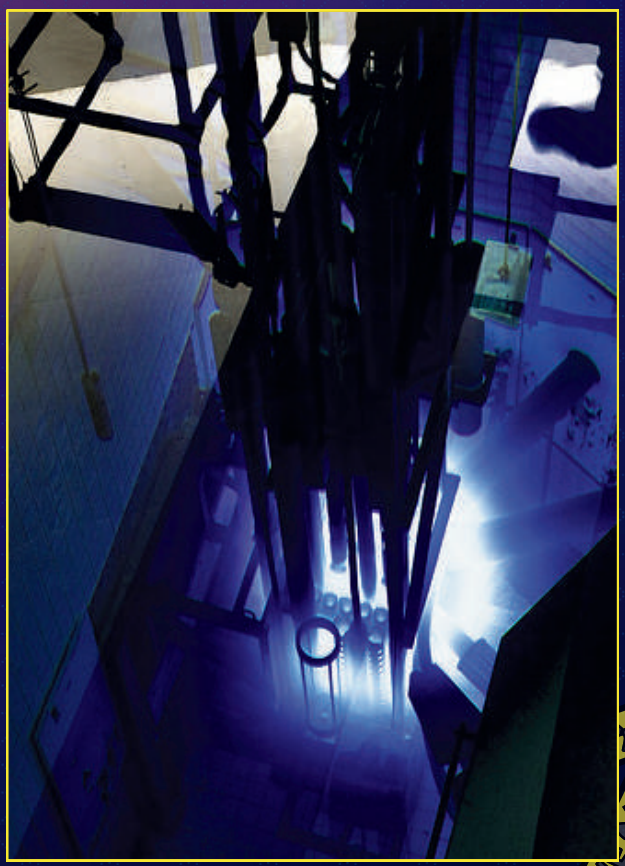
MARVEL VILLIANS

NUCLEAR SPREAD

BY: KAYLA

Nuclear power provides about 54% of Ontario's electricity generation, making it the largest single source. One of the country's projects involves increasing infrastructure for SMRs, or small modular reactors. The Action Plan builds on the momentum of Canada's SMR Roadmap, which conveyed Canada to chart a vision for this emerging area of nuclear innovation. The Roadmap marked the beginning of Canada's plan to lead the world in this game changing technology.

So this begs the question, how do we as students fit into all of this? Well fear not reader, for McMaster is the right place to be to get started on your nuclear journey. Across sustainability, engineering, medicine, policy, and more, the nuclear field is growing and seeping into nearly every field of study. In response to this, McMaster recently launched three new minors for undergraduate students to take; Nuclear Engineering, Nuclear Applications in Applied Medical Science, and Nuclear Studies and Society. McMaster's equipping students to not only keep up with the trends in energy and innovation, but to lead them.



NUCLEAR AT MCMASTER

Nuclear Engineering - Allows you to take courses across varying Faculty of Engineering departments from fluid mechanics to nuclear reactor physics.

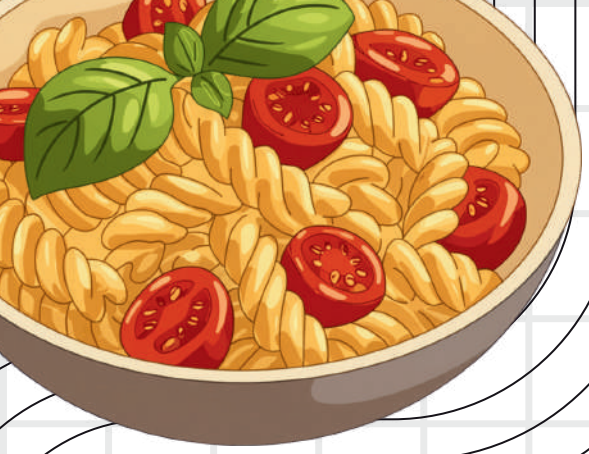
Nuclear Applications in Applied Medical Science - Focuses on courses pertaining to medical physics and medical radiation science.

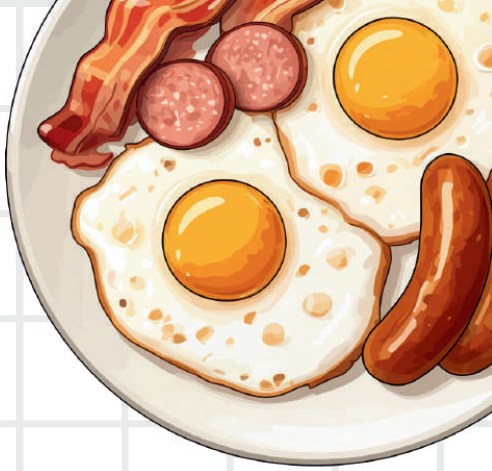
Nuclear Studies and Society - Allows you to design a flexible learning experience that combines knowledge of medical and engineering fields with humanities and social sciences (such as history, philosophy and political science).

Interested in exploring opportunities in the nuclear field, but not ready to commit to a minor just yet? There are still ways to get involved, whether it be through industry nights, informational sessions, or annual case study competitions, McMaster's NAYGN Chapter should be your next stop!

What do nuclear plants serve their workers for lunch?

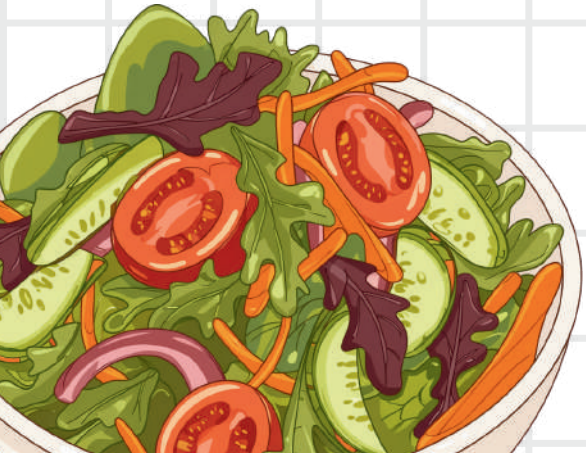
Fission Chips.

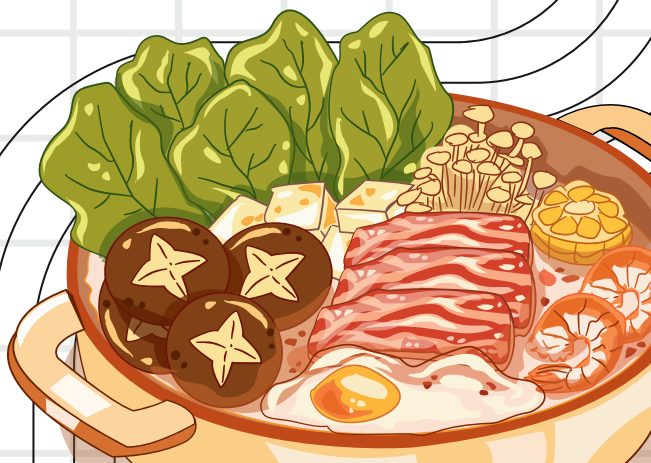




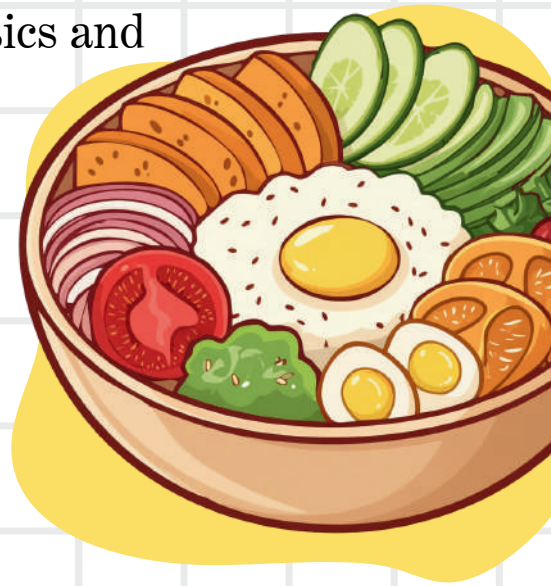
THE ENGINEERING NUTRITION GUIDE

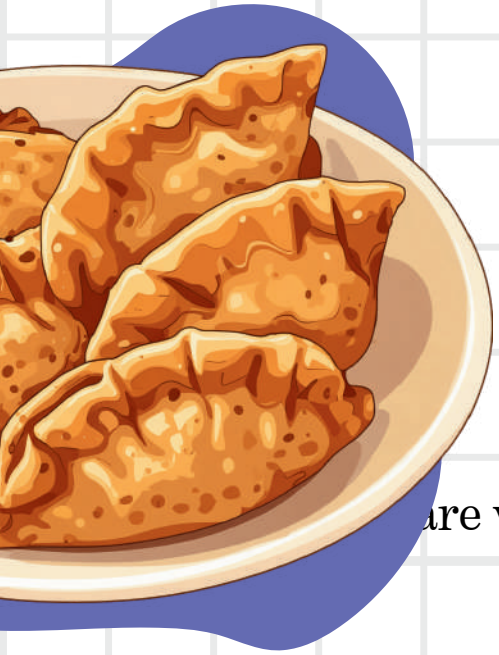
BY: DEREK





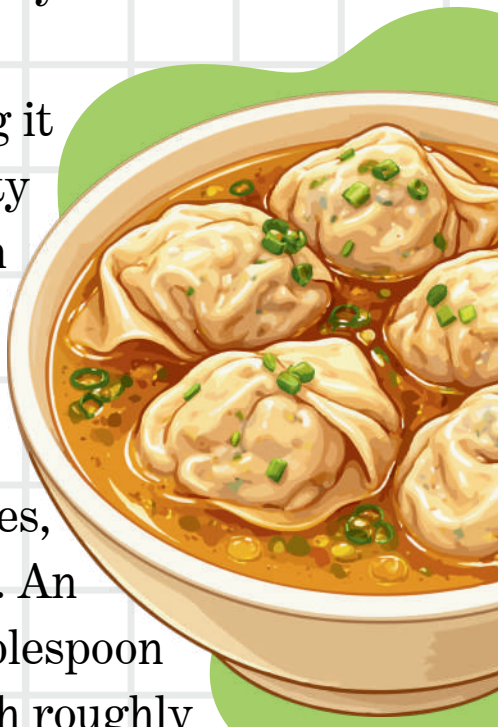
Engineering students are used to science, physics and chemistry being the first to come to mind. But what may be a little less popular is nutritional sciences. Although no single food can make or break your exam season, certain nutrients can help a little bit. But what are they? That's exactly what we're going to go over right now.



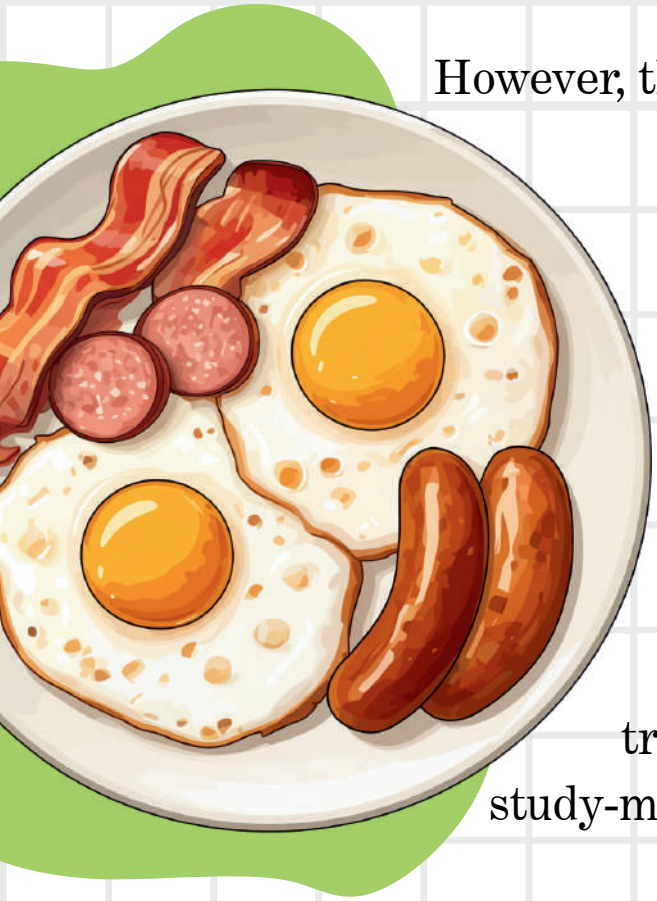


Let's start with some definitions. The three macronutrients your body needs are protein, fats, and carbohydrates. Proteins are composed of amino acids, fats with fatty acids and glycerol, and carbohydrates are made of sugars (no, not white sugar you buy at the store). Micronutrients are vitamins and minerals for healthy bodily function, needed in very small amounts.

The brain is made up of around 60% fats, meaning it requires fat in the food you eat, but especially fatty acids. Omega-3 fatty acids help rebuild your brain cells and protect against stress and damage, aiding in cognition, meaning an easier time learning and studying. They can be found in various foods, including fish like salmon or sardines, and nuts and seeds, such as walnuts or chia seeds. An easy way to get some fatty acids? Sprinkling a tablespoon of chia seeds over some yogurt, providing you with roughly 2.5 grams of omega-3s!

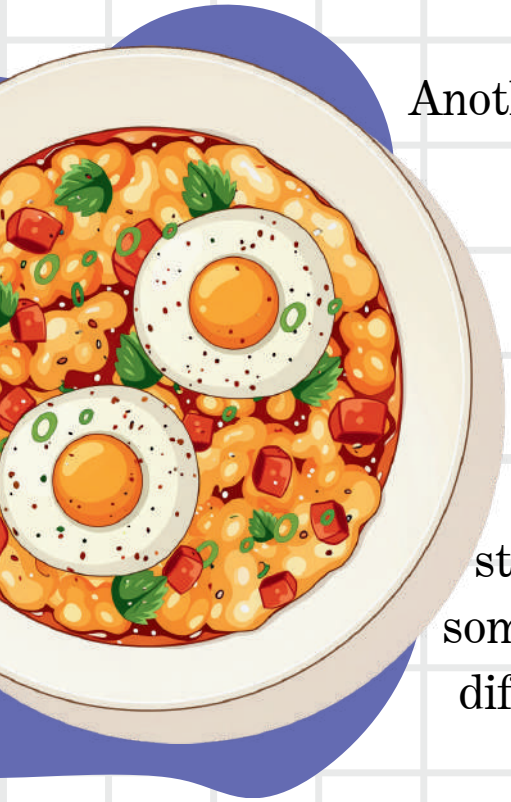


Carbohydrates are the primary fuel source for your body, meaning they provide energy. Carbs can be categorized as either basic or complex carbs, depending on how quickly they break down in the body. The three types of carbs are fibre (both soluble and insoluble), starches, and sugars (many of which end in "-ose" on an ingredient list). Fibre and starch are both considered complex, meaning they can provide longer-lasting energy, whereas sugars (simple carbs) give you a more instant boost of energy.



However, that doesn't mean either one is better than the other, they just have different roles. Complex carbs can be found in legumes, whole grains, fruits, starchy vegetables (think potatoes or peas), and nuts and seeds. Simple carbs can be found in table sugar, refined grains such as white bread, and naturally occurring sugars (such as lactose in milk). Looking for a quick energy boost? Maybe try a sandwich. Longer lasting energy for a study-marathon? Maybe some oatmeal with fruits or a chickpea salad.

Finally, caffeine: a staple on campus during any busy time. Caffeine has been found to have positive effects on memory; in one study where participants took caffeine tablets after looking at a set of images, and were found to remember them better than those without the caffeine. However, it is still important to keep caffeine within a recommended amount (typically under 400mg a day), otherwise risking undesirable effects.



Another important consideration is how you consume caffeine, is it coffee, tea, an energy drink, or something else? Added ingredients, such as sugars, can sometimes contribute an energy spike, followed by a crash, if consumed in high amounts. It is also important to remember everyone responds differently to caffeine. Some students may study better with some coffee, while someone else may find it makes concentration more difficult. Remember to do what works best for you.

Exam season is a stressful and busy time, which leaves little time for cooking extravagant meals or grocery shopping. Nutrition doesn't have to be perfect, and small choices or additions can still support focus during studying and learning. Focus on what you can do rather than can't, and remember to take care of yourself during exam season. Good luck!

One, Two or Three MIDTERMS?

BY: VERONIKA

Looking at a course's syllabus can set a certain mood for the rest of the semester. Three midterms, 10% each, or two worth 15% each. Maybe one, larger 30% midterm? At the end of the day, your midterm tests amount to 30% total, so it shouldn't really matter, right? Wrong. Although mostly subjective, is there a right answer for the ideal amount of midterms?

One large midterm means just that: only having to study for one midterm in the semester. There's less exam prep needed, which is a relief in a project-heavy course. The timing can also work better for some people, which is one second year civil engineering student's reason for one test: "One midterm, because the final can cover all the topics after the midterm. Having a second midterm makes it too hectic and too close to the finals." Another second year civil engineering student shares a similar perspective: "One, and if the weightage isn't too high (instead of two 15% midterms, just one 20%), it allows for other ways to test knowledge". A downside to one midterm means that bombing it can really hurt your grade. But this may be a fair risk to some, especially when courses have heavier weightings for non-exam items.

To some, however, bombing a single midterm isn't a risk they're willing to take. According to a group of second year chemical & bioengineering students, 2 (or even 3) midterms are preferred: "With 2, you get more chances to get a better grade if you bomb one, and 3 if there's no final exam (which is the benefit)." Two midterms means more studying, but in classes not as project heavy, that's a fair trade off. The story also changes depending on whether you have cumulative or non-cumulative examinations. Do you find re-studying the same content a relief or a chore? Maybe cumulative means better expertise on a subject or unit, but it means you can't study as in-depth as you wish you could (especially if you procrastinate). But, non-cumulative means focusing on smaller chunks of coursework at a time.

Another important aspect to look at is scheduling. One midterm a class may mean 4-6 midterms a semester, while two (or more) can mean 8-12+ tests. The more midterms a course has, the higher the chance they'll overlap on your schedule. You may have to be studying for two or three midterms at once. If you're great at time management — great, it shouldn't be an issue! But who really is?

Maybe there's no perfect amount of midterms. Depending on your course-load, exam schedules, a professor's willingness to curve, and so many more factors, there's no "one-size-fits-all" for midterms. What really matters is if (and how) the course supports students. Is the weighting distribution fair? Are there potential bonus marks to make up for a poor grade? No matter what, the syllabus will always matter more than you can think.

Quick Chat WITH Soyul

I sat down with Soyul, my housemate and a second-year iBioMed and Electrical Engineering student, to hear about her experience attending the Conference on Diversity in Engineering (CDE), and why she'd recommend going!

Soyul Kim
Electrical + iBioMed Enfineering

Tell us a bit about yourself!

My name is Soyul, and I'm currently in my second year of iBioMed and Electrical Engineering.

How did you first hear about CDE, and what made you want to apply?

I first heard about conferences during an information session early in the semester, and ever since then I'd been really interested in attending one. When I saw the opportunity to apply for CDE, and especially when I found out it was happening in Montreal, I knew I had to go for it!

WHAT WAS THE CONFERENCE ACTUALLY LIKE?

The conference was hosted at McGill University from November 21–24 and focused on supporting and highlighting underrepresented groups in engineering, including women, 2SLGBTQIA+ individuals, and Indigenous engineers. It was an amazing experience. I got to learn about current challenges in the field and some really thoughtful approaches to addressing them, but what stood out most was the people. Meeting students and professionals from so many different universities and hearing about their experiences in engineering was genuinely eye-opening.

C d e

The programming was really well-organized: there were seminars, mentorship opportunities, and social events, which made it easy and fun to connect with others. I actually exchanged contact information with several mentors and fellow attendees, and I still reach out to some of them for advice to this day.

Would you recommend other students attend something like this?

Absolutely. If you want to gain new perspectives, meet people from other universities, and learn about important topics in engineering in a really engaging way, I'd say go for it!

Scan to watch the recap

2025

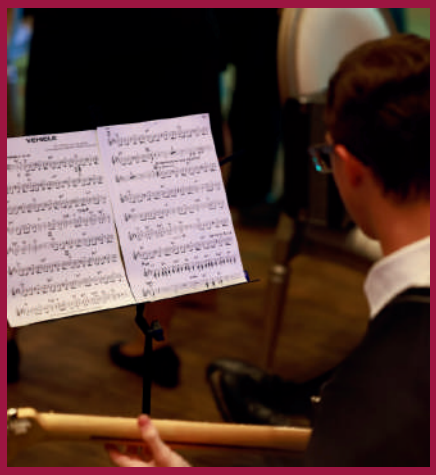
MES SPECIAL PROJECTS SPOTLIGHT

By: Nancy

Every year, the McMaster Engineering Society opens applications to fund special projects for undergraduate engineering students. Recognizing that the MES represents students with diverse interests, this funding opportunity aims to support the establishment of teams, groups, and organizations and provide an opportunity to pursue various initiatives.

This year, we're highlighting three teams who've received special projects funding, demonstrating the creativity, passion, and drive that define McMaster Engineering.

MAC ENG JAZZ BAND



The McMaster Engineering Jazz Band is a self-organized jazz ensemble that performs at McMaster and throughout the greater Hamilton area. For many engineering students, packed schedules and limited course space make it difficult to find time to play with other groups in the School of Arts. MacEngJazz aims to make the jazz band experience far more accessible, with equipment rental reimbursement ensuring that members can keep playing throughout the year.

The band plays a wide range of music, from 1940s ing to current chart-toppers, and has drawn audiences of over 500 attendees in just their second year of concerts. The 20+ member ensemble has performed at MES events including Oktoberfest, Fall SAGM, Fireball, and joint events with the Ontario Engineering Competition and the ETAPS Conference Banquet. Whether you're a seasoned musician or enjoy live music, the McMaster Engineering Jazz Band knows how to put on a show.

Photos by McMaster Engineering Jazz Band, Photographed by @raeoflight.photo

McMaster Concrete Canoe

To build a canoe out of concrete requires ingenuity, teamwork, and determination, something that the McMaster Concrete Canoe Team has in spades. Founded in 2023, MECCT is a technical team within the Faculty of Engineering whose mission is to apply classroom knowledge to real-world challenges through the design, construction, and racing of a full-scale concrete canoe capable of supporting up to four paddlers. Open to students of all programs and experience levels, the team fosters mentorship and collaboration, giving members hands-on skills in design, construction, and project management along the way.

Their hard work is already paying off. At the May 2025 Canadian National Concrete Canoe Competition (CNCCC), hosted by the University of Manitoba in Winnipeg, MECCT earned the Most Improved Team Award and placed 9th overall out of 22 universities, with a 6th place finish in races. It was their strongest performance yet, and this team is only getting started.

McMaster Exoskeleton

Founded in December 2024, McMaster Exoskeleton is a multidisciplinary engineering design team dedicated to developing wearable robotic systems that enhance human strength and endurance with a focus on assisting first responders. By combining mechanical design, control systems, embedded electronics, and a rigorous commitment to safety, the team aims to reduce fatigue and injury risk for firefighters working in high-stress environments.

For a team less than a year old, they've accomplished a lot in recent competition. During the 2024–2025 season, McMaster Exoskeleton placed 5th at the Applied Collegiate Exoskeleton (ACE) Competition, hosted by the University of Michigan. With ACE 2026 in Sherbrooke on the horizon, the team is already gearing up against the world's top teams in next-generation wearable robotics.

Photos by Mcmaster Exoskeleton Team

The McMaster Engineering Jazz Band, the McMaster Concrete Canoe Team, and the McMaster Exoskeleton Team have achieved incredible milestones throughout the years. The MES is proud to support these and many other student initiatives that bring engineering to life in different ways, with applications opening every year to support new initiatives. We look forward to seeing what other projects come to life through special projects funding.

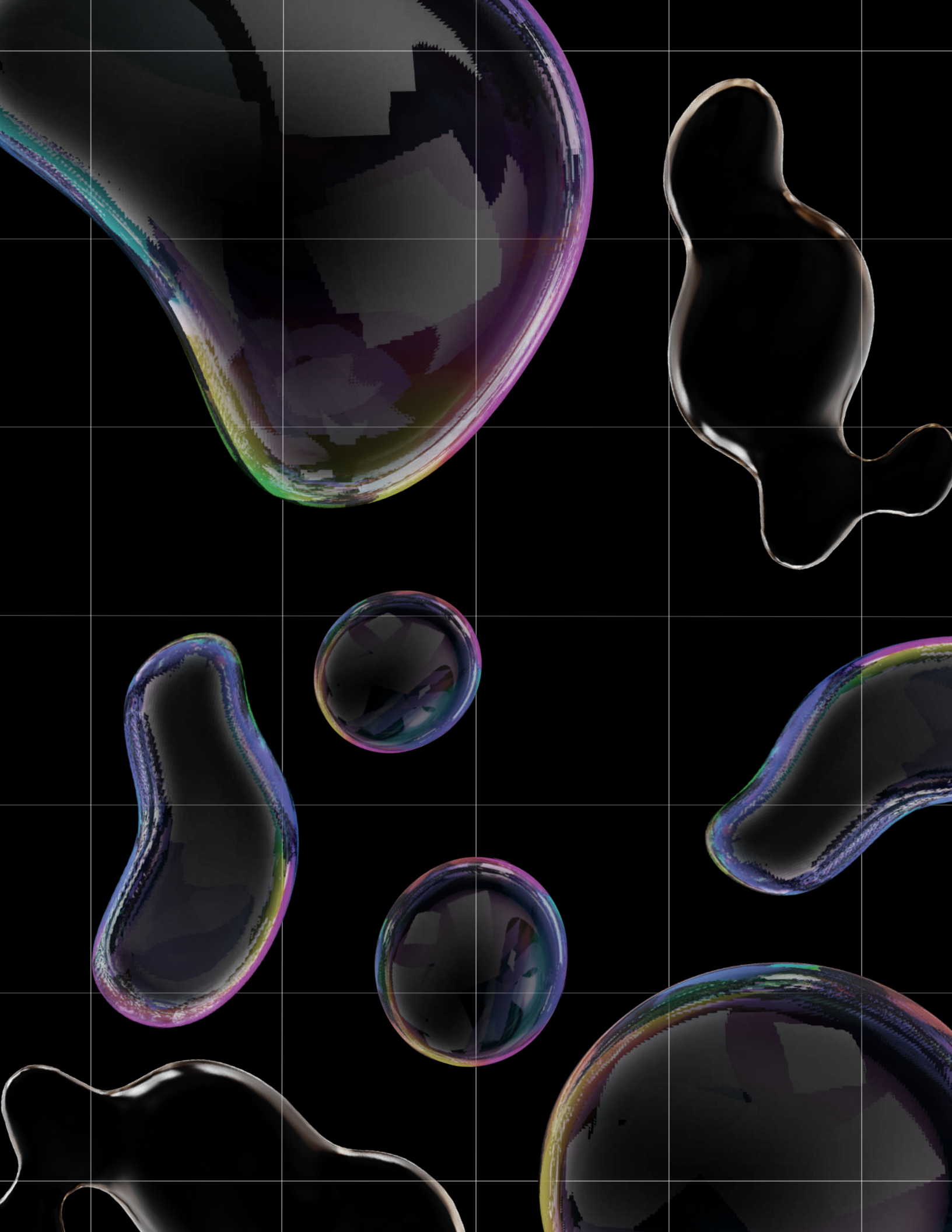
Follow these teams on Instagram!
@macengjazz @mcmasterconcretecanoe @mcmasterexo

THE END

READ THE ONLINE EDITION OF THE FREQUENCY ON THE MES WEBSITE! (PS. THE ANSWERS TO THE GAMES ARE ONLINE!)

IF YOU WOULD LIKE TO SUBMIT AN ARTICLE FOR THE FREQUENCY OR JOIN OUR TEAM, SEND US AN EMAIL AT: FREQUENCY@MACENGOCIETY.CA

THANK YOU FOR READING :)



Connections *Exams Edition*

Admire puzzle!

TYPES OF EXAMS

QUIZ, MIDTERM, FINAL, TEST

FEELINGS DURING EXAMS

STRESS, ANXIETY, PRESSURE, NERVES

THINGS YOU DO THE NIGHT BEFORE

ALL-NIGHTER, PROCRASTINATE, DOOM-SCROLL, CRY

STUDY TECHNIQUES THAT ACTUALLY WORK

POMODORO, FLASHCARDS, PEER TEACHING, SPACED REPETITION

Strands

Frequency 2026

N	A	M	O	O	D
D	O	R	C	R	U
M	A	M	T	T	L
M	U	H	O	R	O
L	E	R	H	N	A
A	L	D	Y	D	R
O	O	O	K	I	T
M	S	O	N	A	H

TODAY'S THEME

MARVEL VILLIANS