



CAFFEINE IS COFFEE'S BEST FRIEND, but how exactly do the two find that harmonious balance? Java Jive's Michael Ould explained the process to us.

Coffee beans, imported from various places between the Tropic of Cancer and Tropic of Capricorn, are stored in barrels for freshness. The type of coffee you can buy is highly dependent on the seasonal changes in the climate in those areas.

The coffee beans are added to a roaster according to colour and size, and this determines the grade of the coffee.

"Once we roast the coffee, a chemical process called pyrolysis takes place, and that's the chemical change from green to roasted.

It occurs by time and temperature," Ould explained, adding that temperatures inside the roaster can reach up to 400F.

While the heating process takes place, the coffee beans expand and their natural moisture is drawn to the surface. When the beans start to crack, the "roast master" judges the extent of the roast for both dark and gourmet blends and whether they are ready to be cooled down. The beans are then moved into a cooler where a reverse air stream is sent through the beans to decrease the temperature.

"Once we stop the roast, it cools, it's ready to be packaged and can be sent out to stores."

"Taurine is under-studied right now, but the combination of caffeine and taurine show increased alertness in studies on number recall and reflexes. As well, it has been shown to increase heart rate and stroke volume," Cena explained.

"If you look at the literature in science, they're hailing energy drinks. Everyone says there's nothing wrong with them—though some of these studies are a little bit biased and have been funded by Red Bull. But right now, there isn't a lot of evidence that taurine and caffeine at those doses is bad for you."

Still, while energy drinks may be safe to consume, that doesn't mean they're nutritious.

"Basically, it's just sugar and caffeine you're getting," Wilkinson noted. "Those calories aren't helping you at all, as there's no nutrient value. In an apple, there's a lot of sugar and calories, but a lot of nutrition too, and you don't get that from energy drinks."

Another trend among students these days is mixing energy drinks with alcohol. While there have been mixed reports on the subject, Cena said that the practice has not been proven to be dangerous—a recent study showed that the biggest risk of mixing the two is that it results in an impaired ability to recognize how drunk you are, leading to more injuries—but emphasized a need for caution amongst his enthusiasm on the subject.

"Studies have been done on mixing energy drinks with alcohol, but the main bad effect right now is that the combination is a diuretic, and it can rapidly dehydrate you, so you should be drinking water with your vodka Red Bulls."

There's a reason they call it 'black gold'

With so much demand for caffeinated products on campus, this market becomes one of the most significant profit generators for the community's economy. The U of A campus is home to over 25 shops that sell coffee or tea as a major menu item, on top of countless other vendors that provide caffeinated products such as pop and chocolate.

Paving the way for the proliferation of coffee outlets on campus, Java Jive, an Edmonton-based specialty coffee provider, opened its first store in HUB Mall in 1976, filling a void in the food and beverage market previously unrecognized at the U of A. Michael Ould, the President of Java Jive, explained

Library as a 24/7 study space, and the nearest thing to a coffee shop at 3am is the Macs by Hudsons on Campus," Gamble says. "I think there's a lot more room for diverse operations, maybe not during the daytime, but for these 24/7 study spaces and for areas on campus that don't have many operations, like Chem East and the EAS area or that general vicinity."

The Students' Union currently owns and operates Cram Dunk, located in the Students' Union Building, as well as Dewey's in the old Powerplant. Additional vendors including Tim Hortons and Expressos Coffee Co are also currently managed by Aramark through their contract with the SU. As Gamble points out, these SU services have a history of taking in a high amount of revenue each year, but it might not necessarily be linked to caffeinated beverages.

"Cram Dunk consistently, year over year, makes a profit for the SU. It never hasn't made a profit. Dewey's in its first year of operations is sort of lagging behind, but we've seen sales grow in that area just as people get to know the space," Gamble said.

"As for growth of sales in the caffeine area for our brands, we really haven't seen that much growth in terms of tea [and] coffee over the last couple years. It's been fairly consistent year to year."

While Cram Dunk makes a yearly profit close to six figures, more detailed financial information would not be disclosed. Statistics on sales and revenue for privately operated coffee outlets, including Tim Hortons and Java Jive, aren't available to the public.

Coffee and the student experience go a long way back. While beverage selection has expanded and marketing has increased exponentially, the social aspect of drinking coffee has remained a reflection of the demands on a student's schedule.

"Things have changed a lot on campus since those early days, the heady days, when education at the University was more than it is today. There was more time for camaraderie and time for the thinkers to sit around drinking coffee, and professors and students would get together," Ould recalled.

"Unfortunately today, most students have to have a full-time job to go to the University, and they don't spend as much time on campus as they did in the '70s and mid-'80s."

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EAMONN GAMBLE
SU VP (Operations & Finance)

The amount of caffeine in your favorite beverages varies considerably between products. Here's a breakdown of how much is present in some popular commercial brews.

Type of Food/Beverage	Caffeine content (mg)
Plain, brewed coffee (8oz/235mL)	95
Instant coffee (8oz/235mL)	62
Espresso (1oz)	64
Starbucks coffee grande (16oz/473mL)	330
Starbucks coffee venti (20-24oz/591-710mL)	415
Brewed Black tea (8oz/235mL)	47
Brewed Green tea (8oz/235mL)	30-50
Starbucks tazo chai tea latte (12oz/355mL)	75
Coca-Cola Classic (12oz/355mL)	35
Pepsi (12oz/355mL)	38
Mountain Dew (12oz/355mL)	54
Red Bull (8.3oz/245mL)	76
Full Throttle (16oz/473mL)	144
Monster Energy (16oz/473mL)	160
Rock Star (16oz/473mL)	160
Hershey's chocolate bar (1.55oz/44g)	9
Extra Strength Excedrin (2 tablets)	133
NoDoz Maximum Strength caffeine pills (1 tablet)	200

that the University acted as a testing ground for their coffee ventures, which eventually turned into a long-term contract.

"We are one of the originals in the gourmet coffee industry, in particular in Edmonton," Ould said. "I was working for the University with a joint appointment between the University and the university hospital, and my travels took me around campus a lot. One of the things I noticed was the number of vending machines and the lineups at these vending machines for this horrible product they called coffee."

Knowing that the quality of vending-machine coffee was sub-par, Ould decided to find a location for his shop on campus—and with two more campus shops currently in operation, the move has proved successful.

"It didn't take long for word to spread across campus that there was this unique little store over there [in HUB], and it really took about three months before we had lineups of about 250 people, which meant we had to change how we operated quickly because one coffee machine was not going to do it."

While Java Jive entered the market almost 30 years ago, Ould sees the competition between major coffee companies such as Starbucks and Tim Hortons starting to retrench. However, according to Students' Union Vice-President (Operations and Finance) Eamonn Gamble, the demand for coffee shops remains unsaturated at the U of A. He points to the recent renovations being done to buildings on campus and how they should be accompanied by an increase in services providing caffeinated beverages.

"I don't think there's a saturation in the market at all, especially with the opening of Cameron

Yet in Gamble's view, while the circumstances surrounding caffeine consumption may have changed, it's coming back into focus as a popular choice for students.

"[The] competition in university is a lot greater than it used to be; the time commitment needed for these classes is greater. Because of that, education is getting more expensive, so students need more money to fund their education, so they need to take part-time jobs during the school year," Gamble said.

"All of these factors combining together doesn't allow the committed student to go out and booze as much on a Thursday or Wednesday night as they may have 5-10 years ago. A byproduct of that is that they need to work on less sleep and less relaxation, so caffeine has kind of become the replacement for sleep for the average student."

With its benefits, detriments, and place in popular university culture, caffeine remains the drug of choice for the student body. As Gamble observes, caffeine and its various beverages are hard to miss on the U of A campus.

"The best evidence I can see, walking around SUB at any point during the day, [is that] I don't think there's many tables not accompanied with a caffeine product and an over-caffeinated student, so I think that speaks for itself."

Are you on your 27th Starbucks Grande and about to crash? Be sure to check out next Thursday's feature, where we investigate the effects of sleep, studying, and fatigue on the student body.