

	FINANCIAL MONITOR ON FEC REPORT: "AGGRESSIVE" BUT "RESPONSIBLE" AFSHIN KHAN (CE '19)			
<i>Editor-in-Chief</i> : Matthew Grattan (BSE '19)	Following the FEC plan to re- turn to a full-tuition scholarship model, the Financial Monitor's second annual report, released in February of 2018, evaluated the	of New York outlined the necessi- ty of a "Financial Monitor" in the Amended Consent Decree from December of 2015. The duties of	a sustainable operating perfor- mance, but only "after restoring resources to a level appropriate for Cooper Union." However, the	accounts exceeded the budgeted amounts by more than \$100,000. The largest of these subaccounts was for employee benefits, such
<i>Associate Editor:</i> Evan Bubniak (ME '21)	viability of returning to a full-tu- ition scholarship model within 10 years. The final consensus reached by Kroll Associates, Inc. is that the plan, though aggressive, is responsible.	the Financial Monitor were outlined in the following manner:1) To summarize the financial condition of the Cooper Union.2) To report on the plans proposed	school will see an increase in contractual rent in the future, which will help restore financial resources to an appropriate lev- el. For example, the rent from the Chrysler Building was \$7.8 million in 2017, but will increase to \$20.1	as medical costs, with a deficit \$1,332,811. The Cooper Union explains that in some instances, the budget- ed amounts were exceeded due to unusual activity. For instance,
<i>Director of Photography:</i> Wentao Zhang (ChE '19)	To fulfill one of its duties outlined by the Supreme Court of the State of New York, the Financial Moni- tor evaluated the FEC plan to re- turn to a full-tuition scholarship model. The Financial Monitor	 by the Cooper Union Board of Trustees and determine whether these plans act in good faith for Cooper Union 3) To identify non-budgeted ex- penditures greater than \$100,000 	million by 2018, which will then increase to \$32.5 million by 2019 to 2027. This increase will help relieve the institution of some fi- nancial stress. Even after Cooper Union reduces	there was an irregular number of claims from the school's self-in- sured medical plan. Similarly, the budgeted amount for facul- ty expenses underestimated the required budget for faculty sti- pends. The Financial Monitor also
Photographers:	states that the FEC has "already accomplished several critical milestones" which include re-ex-	and non-budgeted contractual obligations greater than \$125,000.	deficits and revenue surpasses the cost of operation, the school will still need to account for the	identified 22 non-budgeted con- tractual obligations that exceeded \$125,000. In total, these 22 obli-
Scarlett Chen (Arch '22)	amining and correcting matters	4) To analyze the Free Education	resources that were consumed to	gations amounted to \$6,589,910.
Julius Freyra (CE '21)	from the 2017 FEC plan, confirm- ing the level of financial chal-	Committee (FEC) progress report and its feasibility.	finance past losses with available assets and front-loaded revenue.	The Financial Monitor concludes
Lydia Li (ME '21)	lenges Cooper Union faces, and		The FEC plan recommended creat-	the report with a concern that the
Zheng Alex Liu (ChE '20) Simon Shao (ME '19)	designing changes in operations to meet the required level of fi- nancial sustainability to support full-time tuition scholarships.	In July of 2016, the Attorney Gen- eral's Office of the State of New York selected Kroll Associates, Inc., a corporate investigations	ing a "debt retirement reserve" to ensure that Cooper Union can pay off a short-term loan it secured in 2014 when the final payment date	Board of Trustees has the "occa- sional propensity to endlessly de- bate issues, or to re-open issues that have already been debated
Front Cover:	The Financial Monitor categoriz- es the risks to achieving the FEC plan as either external or internal.	and risk consulting firm, to serve as Financial Monitor. The first an- nual report released by the Finan- cial Monitor in February of 2017	of this loan arrives. The Finan- cial Monitor states that there was significant "borrowing from [the] future" when the school tried to	thoroughly". The report mentions the need to unanimously agree on a plan and move expeditious- ly forward. Though the FEC plan is responsible and templa it is
Sam Jiang (ME '19) with rendering of NAB provided by:	The external risks are economic downturns, inflation, volatility in investment markets, and fed- eral/state tax/student aid policy.	mentioned that the school was under severe financial stress due to operating losses incurred each year for over a decade. The debt	finance its past losses. To fulfill its duties, Kroll Associ- ates, Inc. and the Cooper Union	is responsible and tenable, it is also aggressive in timing; time is money that Cooper Union does not have.
Austin Richard Mayer (Arch '18)	The most significant internal risk identified by the Financial moni- tor is the high expectation men- tioned in the FEC plan for philan- thropy.	manifested from the spending of future lease revenue and the accumulation of obligations for post-retirement health benefits. The operating deficit for Cooper	analyzed more than 1,200 depart- mental operating expenditure subaccounts and its correspond- ing budgeted subaccount expense deficits. They found that 10 sub-	The full Financial Monitor report can be found on the official Coo- per Union website. ◊
Writers:	The Financial Monitor strongly	Union was \$11.9 million in the 2009 fiscal year, but rose to \$21.9		
Miles Barber (CE '18)	endorses "stopping or limiting planned scholarship increases",	million in the 2017 fiscal year, while the net tuition and fees rose	FOR SOME, FEC PLAN IS	
Gabriela Godlewski (CE '19)	even "reversing scholarship lev-	from \$3 million to \$10.6 million in	NOT FAST	" ENOUGH
Afshin Khan (CE '19)	els for future students" in the case that Cooper Union does not	the same time. This information was repeated from the first annual	MATTHEW GRATTAN (BSE '19)	
Misha Luczkiw (EE '19)	meet the guardrails outlined in	report to "reiterate that the size of	If all goes well, the Free Education	The art faculty's letter also ad-
Austin Richard Mayer (Arch '18)	the FEC plan. However, the finan- cial monitor did not comment on	Cooper Union's deficits cannot be cured through expense reduction	Committee's plan will return the full-tuition scholarship to Cooper	vises the Board to consider the "immaterial as well as the mate-
Olivia Heuiyoung Park (ME '20)	the viability of the specific plans, e.g. increasing graduate tuition,	alone."	Union in 10 years. But for some, that's just not fast enough.	rial impact of tuition on students and alumni." Ostensibly, the art
Jeremiah V. Pratt (EE '19)	dorms costs, etc.	The report states that the positive		faculty asks for a more exhaustive
Brandon Quinere (CE '19)	The Supreme Court of the State	margin of 2% per year suggested in the FEC report may represent	The Pioneer obtained several letters to the Board of Trustees	characterization of the effects of tuition beyond the analyses
Yuqiao Wang (ChE '19)	NEWS BULLETIN		expressing concerns that the proposed 10-year plan back to free tuition would put too much	of standardized test scores, high school grade point averages, and admissions statistics presented
	EVAN BUBN	IAK (ME '21)	of Cooper Union's reputation at stake. The Board of Trustees will	in Appendix C of the FEC Report. Until their concerns have been
	On Feb. 28, 2018, the Cooper	The Cooper Union Alumni Asso-	vote on the FEC plan on March 14,	addressed, the art faculty ask the

The Pioneer is printed on packing paper with soy-based ink by Victoria Sobel (Art '13), Jacob Jackmauh (Art '18) and others on their risograph in Brooklyn.

Questions? Concerns? Email The Pioneer at pioneer@cooper.edu or visit LL217.

statement reaffirming the college's support for students who voice their opinion by taking part in peaceful protests. Making specific reference to protests in support of gun violence legislation that have resulted from the recent mass shooting at Marjory Stoneman Douglas High School, the relevant portion is as follows: "The Cooper Union will not rescind admissions offers to prospective students who face discipline for peaceable protest. As is our practice, we would ask that students let us know if they have been found responsible for a disciplinary violation. However... violations for peaceful demonstrations or walkouts will not jeopardize a student's admission to Cooper."

to vote in the CUAA elections. According to Mary Lynch (ChE '82), the CUAA's secretary, this change was made to encourage more participation among recent graduates within the CUAA, and improve the relationship between the student and alumni bodies.

Mitchell Lipton, released a that seniors are now allowed community are apprehensive that

Information about the candidates will be made available at cooperalumni.org over the course of the next couple of weeks. The positions on the ballot are VP -Alumni activities; VP-Student and Faculty Liaison; Secretary, Treasurer, Council Members (12) and Nominating Committee (10). The election will begin on March 15; in order to vote, it suffices to register at cooperalumni.org/ register; CUAA will send ballots directly to the inbox of registered students and alumni. ◊

certain features of the plan have not been given due consideration.

Union's Dean of Admissions, ciation (CUAA) has announced yet some members of the Cooper Board to delay the March 14 vote.

Letters by the faculty of the School of Art, Professor of Electrical Engineering Toby Cumberbatch, and former trustee Michael Borkowsky (ME '61) express the common concern that taking ten years to return to the full-tuition scholarship model will degrade Cooper Union's reputation.

In their letter, the faculty of the School of Art expresses "serious reservations" about the FEC report's 10-year plan and its strategy to increase dorm costs to market rate. Increasing dorm cost could discourage newly admitted students from living in the dorms as first-years or from attending Cooper at all.

In his letter, Cumberbatch proposes adopting a five-year plan back to free. While such a plan would place "enormous pressure" on Cooper Union, it could also "galvanize the community and become a focal point for fundraising."

Cumberbatch also considers the future of Cooper amidst increasing concerns over global climate change. "Within 10 years," he asks, "will it even matter if The Cooper Union is free or will New York be partially underwater?"

Borkowsky's nine-page letter suggests alternatives to the FEC's Recommended Plan, which he calls a "major step forward" but adds that it does not adequately address the urgency of returning to free. ◊

PHYSICS, CHEMISTRY CHAIRS VOICE CONCERNS ABOUT CONTACT HOUR CUT

MATTHEW GRATTAN (BSE '19) | OLIVIA HEUIYOUNG PARK (ME '20) | JEREMIAH V. PRATT (EE '19)

On Jan. 30, the chairs of chemistry, physics, and math received separate emails from the Dean's office informing them of a massive change in the structure of their classes: Beginning next semester, all classes must reduce the number of contact hours to match the credits offered.

The idea of reducing contact hours to match the number of credits in some classes was discussed almost a year ago at an engineering faculty meeting. However, the engineering faculty heard little else of the topic until the Dean's office sent out the directives.

To better understand the faculty's views on this directive, The Pioneer interviewed Andrea Newmark, Professor and Chair of Chemistry, Alan Wolf, Professor and Chair of Physics, and Richard Stock, Dean of the School of Engineering.

"A lot of terms were thrown out, but we don't feel we fully understand why the administration is doing this," explained Newmark.

Although the administration communicated instructions tailored to each department, many professors and chairs feel the rationale behind the change was not well discussed. "A lot of terms were thrown out, but we don't feel we fully understand why the administration is doing this," explained Newmark.

According to a Feb. 8 email from Engineering Student Council, the directive from the Dean's office is an attempt to standardize the number of weekly classroom contact hours with the number of credits earned, "as per New York State regulations." However, the New York state regulations (8 CRR-NY 50.1) only define the minimum number of contact hours required for one credit, not a maximum.

In a sense, the change is an artificial constraint, and from a purely curricular standpoint, it seems to have minimal benefit. For classes with more contact hours than credits, either teaching time must be cut, or the credits must be increased.

The administration has opted to reduce hours rather than increase credits, which some regard as harming Cooper Union's academic rigor. But increasing credits would not be a simple compromise between enforcing New York State guidelines and preserving educational rigor. per week; the administration's directive would reduce the weekly contact hours to three.

"There's a lot of material that we feel is important," said Newmark regarding the chemistry department's stance on the issue. "In order to cover the material that students need in a year long chemistry course, we'd need the four hours."

Reducing contact hours could also change how courses are taught in the chemistry department. Less class time could be spent on reviewing homework, the number of tests could be reduced, and some topics could be left out entirely.

But the chemistry department isn't ready to change their teaching methods just yet. According to Newmark, "we haven't discussed what we'd do as a department because we haven't really felt that it's been finalized." The department is currently discussing alternatives to cutting contact hours with the administration.

Not only is the material covered in the first two semesters of chemistry crucial for higher-level chemistry and chemical engineering classes, but it is also important for students who plan to take admissions tests for medical school. Beyond that, a background in basic chemistry is arguably necessary in understanding current events in science and technology.

In a sense, the change is an artificial constraint, and from a purely curricular standpoint, it seems to have minimal benefit.

"You might say, 'well, why do you need the extra hour of chemistry?' but I think you also need a basic, solid foundation in science, math, and engineering," Newmark opined. "Given the times we live in with climate change and other environmental problems, I think all people should have a good basic science understanding—especially engineers or people who are trained as engineers."

Wolf concurs. "Students should be concerned that the reputation of the school and degree will be harmed... the value of the degree will be questioned by others once they see the proposed changes for contact hours and credits."

The proposed changes for contact hours and credits "came down as a dictate," inexcellent. Then we got tuition, and it became a place that's not too expensive, and maybe excellent. Now it'll be a place that's not free, and has a weaker curriculum," Wolf said. He added, "this is a very scary experiment to try. What if it does impact students' ability to do advanced level coursework? We shouldn't risk the reputation of the school, as it is impossible to undo a loss like this."

Class time, to Wolf, is where material is taught, questions are answered, and problems get practiced. Wolf also questions how to account for the nine weekly hours lost across the chemistry, math, and physics departments. Some options are to lecture or teach the material faster, to cut recitation hours, to cut content, or to cut practicing questions, all of which could prove problematic.

"None of our students have had enough exposure to physics to be able to tutor other students in it," says Wolf, as a counter argument for students tutoring others to make up for the lost time. "The first time through all these courses, we only expect you to get so much of it, but I think by the time you've made your way through all the physics courses, you're doing more sophisticated stuff. We've brought your brain to a different place."

Wolf highlights that "we don't teach physics because we want to give you all the little bits of physics information. Some of those bits of information are important, but you will probably never see 98% of those bits. We teach what we teach, the whole package of physics courses, because we believe in the integrity of the discipline. I think the same is true for chemistry and math."

"We hope that by the time you finish all the physics courses, you understand how the bits fit together. You have an analytical ability as a more sophisticated thinker. All of the bits together create an ability in you, which is more than just individual bits of knowledge."

"Cooper used to be a place that's free and excellent. Then we got tuition, and it became a place that's not too expensive, and maybe excellent. Now it'll be a place that's not free, and has a weaker curriculum," Wolf said.

Wolf is concerned that the proposed chang-

flexibility for adding electives," explained Stock.

"I think some people are concerned about cost-savings, but the understanding is the actual cash we spend out is more or less going to be the same — it's how we spend it. For example, if we eliminate some of the extra contact hours in one of the departments, a couple of professors there can teach another course. So they're obviously going to be paid their salary whatever happens, but from the point of view of the use of our resources it makes a lot of sense."

Dean Stock also wanted to make clear that this process was not brief, and that coordination efforts were made long before the notification emails to math, physics, and chemistry were sent on Jan. 30.

"This started in Spring 2016, when the trustees asked us to find a further \$7.8 million. I tried to look at was getting into how we do business, how we teach, what we do, and see if there is a way that I could identify a way we could get more value for our money. That I presented to the FEC. Ultimately things went to the trustees and the concepts were included in their plans for going forward. So I introduced the ideas to the faculty very briefly in a faculty meeting."

Before these changes rolled out to physics, chemistry, and math, Dean Stock coordinated with the major-specific engineering departments to incorporate contact hour changes into their own curricula. Most, if not all, of the 5 majors had their own contact hour discrepancies that he sought to remedy.

"I spoke to each of the departments individually. There was a range of what I like to call 'curricular anomalies,' where classes were meeting for more hours than their credit hours. Some of those anomalies were fine, but some had to change, and the Engineering departments changed the way they were doing stuff. Either an extra contact hour went away, or the Engineering department made a curricular change to give that course an extra credit, and that process all went through the curriculum committee and the faculty."

Because of the extensive nature of the necessary cuts in math, physics, and chemistry, Dean Stock met with each of those departments individually in an attempt to coordinate the effort to normalize the curriculum.

"That was in the spring of 2017," explained Stock. "This is something that is embedded

Currently, engineering students need a total of 135 credits to graduate. If credits increased to match contact hours in every required class in the chemistry, math, and physics departments, the number of required credits would become 143 or 144, depending on the specific major. Requiring more credits could make Cooper Union less appealing when compared to other schools.

"It's one thing to say that you're getting more for your money because the faculty is spending more time with you," observed Newmark. "It's another thing to say, 'you need 140 credits to graduate from Cooper Union, but at this other school you only need 135.' How are you going to sell that?"

For the chemistry department, the change would effectively cut 25% of the introductory chemistry curriculum. Currently, Ch110 General Chemistry and Ch160 Physical Principles of Chemistry are both three-credit courses taught for four hours stead of going through the Curriculum Committee and the union," explained Wolf, referring to the the Cooper Union Federation of College Teachers.

Wolf explained that they've only had informal discussions, and members did not have an opportunity to respond. No official announcements were made to the rest of the engineering faculty other than the affected departments, and the requirement that it be implemented beginning in the fall appears hasty.

Furthermore, Wolf believes that this would only result in saving a "microscopic amount of money compared to the money that Cooper Union has to worry about, and there are other places we could make savings," and that, should there be big savings, they should be "open about the numbers" and share them.

"Cooper used to be a place that's free and

es will mean that there's less time to prepare the students' brains to the capacity of learning and the ability to apply the concepts and a higher level of thinking.

"Doing this to me is a little bit like saying, 'don't have law school for 3 years. Don't teach people how to think like lawyers. Just have them memorize the little bits of New York law that would be on the bar exam."

Dean Stock, however, disagrees with professors' sentiments that these changes will harm the engineering school. For him, these changes represent huge advantages in allocation of resources, whether those be spatial, temporal, or professorial.

"I think the underlying issue with that process is that we want to achieve some degree of consistency with how we deliver the program. I also think that there are advantages to this change, especially with regards to scheduling and flexibility for students and in the trustees' plans, so we need to be looking at some changes. So I asked them to consider those changes, and to get back to me if they have any suggestions or other plans or alternatives that we could consider."

Even into the beginning of this semester, there has been conflict over the timeline of this process and how professors were notified. Dean Stock sent out notifications to the math, physics, and chemistry departments.

"That was the day we had a faculty meeting, and the reason that I didn't mention the change there was I didn't get the goahead until after that meeting. Part of that was because I'd been pestering people saying that this has to go out before Professor Guido asks for scheduling input. It was somewhat last minute from that point of view, but it was a process." ◊

WHATEVER IT (MAYBE) TAKES TO GET BACK TO FREE?

AUSTIN RICHARD MAYER (Arch '18)

The opinions in this article are those of the author alone and do not represent the views of The Pioneer as a whole.

I'll get it out of the way in the first sentence. Lets sell an advertisement on the south facing facade of the dorm. It's prime visual real estate that will only be visible for another year or two. According to Curbed NY, an office tower development is going up on the corner lot where the McDonald's, Continental, E Smoke Shop, Korilla, store fronts vendors, Papaya King and other occupants currently stand. That's why those businesses are all closing. I'm down to help sell it this ad. I worked at New York Central and can sell anything, including pencils.

A building size graphic is nothing new to the area. The Fisher Music Building sets the precedent for the neighborhood with its large clock and painted logo. Other advertisements are popping up as we speak and the the more there are, the less valuable our facade becomes. Astor Place is becoming a mini Times Square, I suppose.

Ads of this size, in areas this visible, lease for a decent chunk of change. Here are two companies that deal with advertising of this scale in New York City: Lamar Advertising Company and Landmark Dividend. They can could be used as reference for contracts that the school itself structures or, if necessary, used to broker the deals due to our limited time and resources. I would guess that someone from the Cooper community is working within this urban graphics industry. It's a priority that Cooper remains in control of what content we display and when we display it.

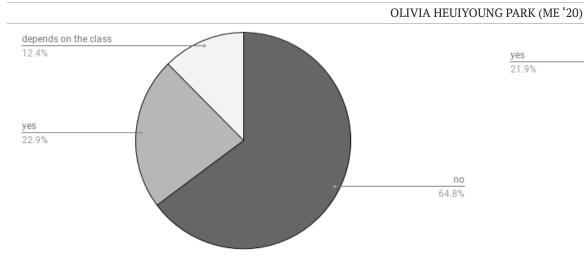
Peter Cooper set up a radical capitalist model that is The Cooper Union. He rerouted the forces of invention and private property into a space of free education. This dorm ad idea isn't a slick as a Peter Cooper idea but maybe it's a step in the direction of flipping these capital pressures on their head. I just wanted to say thank you to all the people working hard to keep Cooper rolling right now. I know extra projects like the one I proposed take a lot of time and energy to realize.

Other ideas might include using our hundred computers to mine cryptocurrency when the school is closed or turning the lights off during the day. Well, maybe not the cryptocurrency thing, but right now let's sell that dorm facade while it's still visible. When the office tower goes up and blocks the view, let's sell it again to the competition of whatever social media company sets up shop in the neighborhood's next mid-rise tower. \diamond



A rendering of advertisement space on the southern facade of 29 3rd Avenue. By Austin Richard Mayer (Arch '18).

PLUS AND MINUS GRADES: A PLUS OR A MINUS?



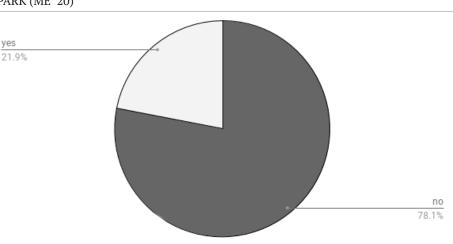
Do you think plus/minus grades would be a better grading system than the current one?

There have been several discussions and proposed changes in the Engineering School lately, including the question of whether or not plus and minus grades (e.g. A-, B+, C+) should be accessible for professors to use at their discretion.

Professor Melody Baglione, Associate Professor and Chair of the Mechanical Engineering department, proposed the idea to the Engineering Student Council. As she explained, "Right now, professors in the engineering school don't have the ability to assign plus/minus grades. And we grade a certain way given the situation. It's hard to really say how a professor would change what they do. They would have the option to not change anything if they choose. But if a policy is voted on by the faculty and is approved, professors will have the option to use plus/minus grades at their disposal." full letter grade seems like an abrupt cut off for me," explained Baglione.

Currently, Humanities and Social Sciences is the only department engineers take classes in which can assign plus or minus grades.

"There are other departments, HSS for example, that give plus or minus grades, so I don't see why I as a professor shouldn't have the right to also give plus or minus grades, if I so choose," said Baglione. "I feel like it'll more accurately reflect a person's performance. And on average for me, I don't think it'll lead to grade inflation/deflation."



Should professors or departments be able to choose between the two grading systems?

Out of the 13 middle responses, there was a general consensus that although high stress and high credit classes could benefit from the implementation of plus or minus grades, the current system works.

One common sentiment in the responses was that the plus or minus grades would "give an extra level of precision for the GPA system that previously was highly inflexible," and that "Any improvement to more accurately represent class performance should be welcome." give plus and minus grades."

However, 82 of 105 students answered "no" to the question, "should professors and/or individual departments be able to choose between the two grading systems?"

Overall, the greatest concern for students seems to be standardization and consistency. Over 30 responses of the 105 mentioned the two words, with many more questioning the fairness of plus and minus grades. "I don't think the grading system is the problem. There is a greater discrepancy between professors which teach the same courses that impacts grades more significantly. I think standardizing the professors should be more of a priority," explained another respondent.

Baglione's reasoning for proposing this idea is that a single, sharp letter grade does not sufficiently assess how students do over the length of a semester.

"I think there would be some benefits to a 'in-between grade'... I would just like to have the option to differentiate borderline student performance. Because in a course that has lots of quizzes, homework, exams, and tabulated numerical performance indicators, at some point there's a cutoff... and a "I brought it up to ESC because there are some people who are used to the current system and see no need for plus and minus grades, but there are also people in the middle who might be swayed by what the students think."

So, what do the students think? The Pioneer conducted an optional, voluntary, anonymous survey to gain a better understanding of student opinions.

Out of 105 respondents, given the first question, "do you think plus and minus grades will be a better grading system than the one we have now?" 68 said "no," 13 said "depends on the class," and 24 said "yes." However, the overwhelming majority is against the implementation of such changes. "The current system is better... the last thing we need is for people to pushing for A+s in every class. There is enough stress already," said one.

Also, this change is alarming to some students. One respondent feels that "it has the potential to increase competition rather than collaboration. The pros and cons completely cancel mostly... This is a completely unnecessary thing to change."

Professor Baglione also mentioned the possibility of making the plus and minus just an option for the professors, and that "For professors who don't like plus and minus, they can continue the way they grade. They can say in the beginning of class that they don't Baglione says it is also important to consider the effects of implementing the change partway through a student's program explaining that "if there's concern that we shouldn't do this midway, we don't know that... We could also make the change effective only with the new incoming classes so it's not done during the middle/transition period."

However, the majority of the students seem to agree that the current system is fine the way it is. One student explains, "[we] shouldn't fix something that isn't broken. [we] don't see the need to change it, there is literally nothing wrong with what we have now." ◊

CU VOLLEYBALL BEATS HISTORIC RIVAL, PRATT

Volleyball is a game about momentum. Whoever can force the momentum in their favor wins the game. The momentum wasn't in our favor on Saturday, February 17. In my three years on the volleyball team, we have lost every game against Pratt, both home a¬¬nd away. Coming into the game, our prospects of victory looked very slim, considering our starting line-up had three of our best players missing: Sam Cheng with his powerful spiking, Soham Patel with his formidable height, and the experienced all-rounder Sun Kim.

Most of our team was comprised of innocent young freshmen playing their first college volleyball game. Fifty minutes before the game, both teams warm up. This is where you prepare yourself mentally for the game and observe the other team, spotting weaknesses and strengths. Pratt's players are tall, and their star player "Number Four" has improved even more, adding a jump float serve to his repertoire. "We must block him at all costs, don't worry so much about the other players," our coach, Sergey, tells us. Warm-up is over, time for the national anthem, and then the players shake hands.

The first set is an utter disaster. We fumble the simplest of balls, there is no communication between us, and our positioning is static. Before I know it, we're down seven points and the game has barely even started. Our coach calls a timeout to slow the bleeding. The set is lost already but momentum is everything, all that matters now is to get some good combinations so we can end the set on a high note. We lose the set by an embarrassing 10 points, but we managed to get a couple of good plays at the end, which stirred the young players.

In the two-minute break between sets we gather in a circle. Coach points to the positives: "I saw some good combinations at the end, let's keep that up." He fleshes out some technicalities we need to improve upon. But if sport teaches you anything, it's that psychology can sometimes be more important than anything else. It was obvious the freshmen felt a little scared — it MISHA LUCZKIW (EE '19)



was their first game, after all — and the first set had left much to be desired. After both Sergey and our captain, Chris E., were done talking, they asked me if I wanted to add anything before the start of the second set. I said the first thing that came to my mind: "Relax guys, relax. I know you're nervous and uptight, but they're just as nervous as we are. Relax, loosen up, but concentrate on every single point."

In the second set we immediately go down a couple of points. In those cases I avert my eyes from the giant scoreboard displaying just how much we stink right now. "They're just numbers," I think to myself. Finally we gain a tiny bit of momentum with a couple of powerful serves and sneaky plays at the front. Our focus is better but we're still trailing by a few points. A few slip-ups by Pratt allow us to get a slight lead in the set after trailing for the whole game. But the advantage is ever so slim and the end of the set is approaching; a mistake here can cost the set and basically the match.

Clutch moments determine the outcome of the game; it's where nerves are pushed to their breaking point, and the thrill makes you feel alive. We win the second set with the slenderest of margins, 26-24!

"Yay, hurray, we did it, we won the set, we can beat them!" That sort of attitude has

cost us all our prior games with Pratt. We would win a set or two, and think that the game would just finish by itself. No! We're tied, the momentum is slightly on our side simply because we won the last set, but we haven't won anything yet. Chris E. warns us: "We stole that set from them, and they're pissed. Keep focused because they're gonna come back for vengeance! Cooper on three!" "One, two, three... COO-PER!!!" we all shout.

Now, the third set begins. We get off to a good start, which frees us up in our game. Pratt gets a clean ball to their setter. "Number Four" prepares his run on our right wing. The set is clean and "Number Four" unleashes on our block which sends it straight down on their field. Gian, the skinny freshman, blocked the unblockable "Number Four." The tides have definitely turned. The momentum is on our side and so is the third set with a clean 25-22.

The Pratt beast is weak and confused. It's time to put salt on the wounds and deliver the knockout punch. In the fourth set we play with confidence and build a significant lead. But right when we hit the 20-point mark, it seems as though an invisible force is making the points harder and harder to win, as if we're carrying a rock on the top of the mountain, like Sisyphus, and have reached the steepest and most treacherous part. If we lose the momentum that rock will tumble back all the way down, leading us down as well. Pratt gets us in an uncomfortable rotation and cuts our big advantage to 1 point: 23-22. Sergey calls a time out. "All right guys, catch your breath. Win one more point and we have match points."

We win the next point in a scramble and get out of the uncomfortable rotation: 24-22 and two match points. Pratt gets a clean hit from "Number Four": 24-23. The nerves are sky-high, one more measly point and it's over, please please. But the drama isn't over. We get a decent pass to the setter and then try something fancy but don't quite make it: 24-24. Sergey calls another time out. "All right guys. One last push! They want it bad, but we want it even more! Show them how much we want it! COOPER ON THREE. ONE, TWO, THREE COOOOOOP-ER!!!"

They serve, the ball comes flying by, a good pass to Jason, our setter, who sets it to me in the middle. I see Pratt's block rise, a 6'7" guy stretching as much as he can. Instinctively I fake the shot and tip the ball softly over the giant, knowing that his height also makes him less agile for these kinds of shots. 25-24 and match point for us. It's my turn to serve. I give the ball a kiss for good luck. The serve goes over to their side and, after three passes, we all stare at the ball coming back to my serving side. I follow the ball as it lands outside the court. 26-24, point, set and match!

Wow, I really did not think we were capable of winning against Pratt. I remember the bitter conversation I had with Calvin Liu, a senior last year, when we lost to them: "Why do you think we lost?" he asked me. "It's a mental game. We had all the cards to crush them. We just didn't want it badly enough."

Now I felt like, with these freshmen, the fire and will to win was there.

Our next home game is March 24 at 12 PM, at Baruch College on 21st between 1st and 2nd Ave. I hope to see you all there! \diamond

ESC TO PROFESSORS: "CATEGORICALLY AVOID" SUICIDE JOKES

MATTHEW GRATTAN (BSE '19)

In a recent email to engineering faculty, The Engineering Student Council asked professors to "categorically avoid" jokes Critics seemed hesitant to approve a letter they saw as policing the speech of only a few members of the engineering faculty,

they saw as policing the speech of only a few members of the engineering faculty, but proponents felt it was necessary to release the statement, given an occurrence of suicide at The Cooper Union last year. seeks to establish these professional standards by requesting that jokes about suicide be removed from common vernacular.

Representatives who opposed the resolution were quick to point out the absence of es of suicide. But the letter was not about causation—or even correlation. The letter was about making Cooper Union a more inclusive, supportive environment. In the opinion of many ESC representatives and students, that begins in the classroom. ◊

that professors have suggested to students who performed poorly on assignments that they should kill themselves.

regarding suicide. According to the letter,

students have come forward with reports

In a meeting on Jan. 22, ESC representatives voted 16-2 to approve the final wording of the letter, which was emailed to engineering professors on Feb. 24.

While the majority of ESC backed the letter, the few dissenters regarded the letter as a "ban on hyperbole" and its questioned efficacy. The council debated the letter for almost an hour on the letter before pushing a vote. Typical meetings run for approximately one hour in total and cover several topics: Discussion of this one issue was not taken lightly.

An instance of a professor making a joke about suicide was first brought up at the final ESC meeting of last semester, and the council decided to draft an open letter to be voted on at the first meeting of this semester.

ts that

The reported incident regarding suicide jokes did not mention specific names, and it was unclear when it happened. There was no indication that more immediate steps were taken to address the scenario like speaking with the professor or bringing the issue to student affairs or the administration.

However, the letter was not about a specific instance: It was about how students and faculty in the engineering should approach mental health and suicide. The majority opinion of ESC was that suicide should not be taken lightly—especially in a classroom setting.

The letter asserts that the faculty have a responsibility "to be aware of how their words affect students" and that they should maintain a "healthy" and "academically challenging" pedagogy. Implicitly, the letter a link between suicide jokes and instanc-

Dear Professor,

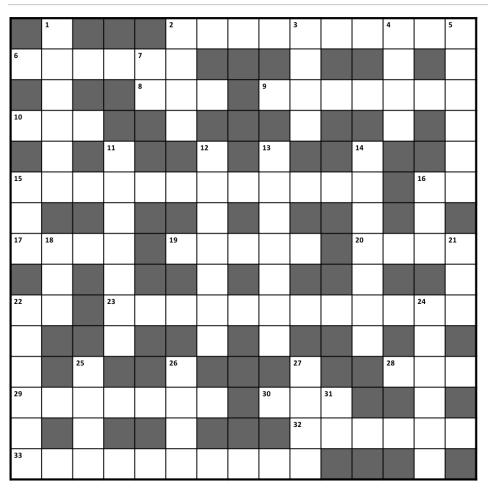
The Engineering Student Council has been made aware that inappropriate comments joking about suicide have been made in class by professors in the engineering school. Students have brought forward reports of professors making jokes encouraging students to 'kill themselves' if they do poorly on an assignment or classroom exercise. These crude, sarcastic comments diminish the gravity of a very serious issue that has shaken the community not so long ago. Students come to this institution to learn and rely on professors to uphold a healthy and academically challenging learning environment. We hold the faculty responsible for being aware of how their words affect students and thus, there is no place for jokes like these in our community.

As a council, we take all of these claims seriously and will not tolerate any jokes about suicide made by the faculty, or the student body for that matter. These comments are absolutely unacceptable, especially given the pressure and stress of being a student at the Cooper Union. There is no way to tell who is dealing with mental health issues and jokes of this type could propel a student into suicidal thoughts. We therefore ask the faculty to categorically avoid making such remarks in the future. We hope that our position is understandable to you and we hope that the Engineering Faculty can help the Engineering Student Council foster a healthier learning environment on campus.

Best, Engineering Student Council

CROSSWORD: A PLAY WITHIN A FILM

JACKSON MCGRATH (ART '19)



MILES OF MOVIES: BLACK PANTHER

MILES BARBER (CE '18)

Black Panther is about T'Challa (Chadwick Boseman), the prince of Wakanda, who, ready to take the throne, faces the conflict of what to do about Wakanda's place in the world. The African nation secretly houses the greatest technology in the world, but doesn't use it to help the rest of the world in order to preserve the nation's secrecy. Enter Killmonger (Michael B. Jordan), a man raised in poverty and hardship without Wakanda's help. The clash of ideologies helps make this movie a little more interesting than your typical Marvel film.

Let's start with the good. The performances in this film, especially from the supporting cast and the villain, are fantastic. Michael B. Jordan is such a presence as Killmonger – every time he's on screen you can't take your eyes off him. T'Challa's brainy sister Shuri is played by Letitia Wright in a star-making turn. Lupita Nyong'o is similarly fantastic as T'Challa's ex-girlfriend who is along for most of the mission. These showy performances would seemingly overshadow Chadwick Boseman's stoic portrayal of T'Challa but it all fits nicely together. Add in a good soundtrack, some pretty emotional scenes, and good humor and you have a pretty engaging movie.



Image source: IMBd.

Unfortunately, that's not really until the second half of the film. Quite a lot of this film consists of world-building and storylines from other Marvel films that feel out of place. There are two such characters from other storylines that, while perfectly fine in this film, feel like they were written into a storv that didn't need them. Thev

ACROSS:

- 2. for Hitler, in Germany
- 6. A paraded expert
- 8. Not without representation, at least
- 9. Last name of Jason Schwartzman's teen playwright in Wes Anderson's Rushmore, and of American chess grandmas-
- 10. "I stubbed my toe"
- 15. Charlie Kaufman's directorial debut about neurotic theater director Caden Cotard
- ___, ego, and superego 16.
- 17. The main ingredient in Off!
- 19. Nirvana's final album, In
- 20. Uncertain, ambivalent
- 22. A muscle
- 23. Cameo by Matt Damon as The God of Mischief
- 28. A type of beer
- 29. A sequel to a Shakespeare classic
- 30. Don't bring me down, Bruce!
- 32. 2016 Libertarian candidate Gary Johnson: "What is__?"
- 33. John Turturro's titular playwright in the 1991 Coen Brothers' film

DOWN:

- 1. For those dearly departed
- 2. Harry Potter's Patronus
- 3. Ingenue
- 4. John Blackburn's novel about the Argentine Marxist revolutionary
- 5. Getting groceries, dropping off the laundry, mailing a letter, etc.
- 7. In Derry, Maine
- 11. Let this one sit for a while
- 12. Illegible writers
- 13.Native to the Himalayas
- 14. E.g. "I wouldn't count on it."
- 15. Standard abbreviation
- 16. Israeli Military
- 18. ____ and flow
- 21. Bovine
- 22. Frog-like military vehicle
- 24. Georges Perec, Italo Calvino, Marcel Duchamp, Raymond Queneau
- 25. Love
- 26. An ardent fan who drove off a bridge
- 27. Criticism, if not gunfire
- 31. Colloquial contraction: consistent, trustworthy

AN ALLEGORY

ANONYMOUS

Others had never tasted it.

books, and were certainly

water.

I have been teaching a course on the Allegorical impulse in the arts of the 1970s and 1980s in the US. And oddly enough, and maybe fortuitously, I received the following story from a student.

This is what she wrote:

The Cooper Union once had an old well with fresh and clean water.

It was so fresh and clean that some thought they should dig a second well nearby, double the amount of water out of the ground, and maybe even bottle and sell the water.

As predicted, digging the second well disturbed the ground, and caused a crack in the They'd only read about it in old well. Toxic sludge started to contaminate the old well's water. committed to the idea of fresh It soon turned muddy and smelly.

to keep drinking the water, because, as far as we know and as our experts have confirmed, no one has gotten sick yet from 24% sludge. And besides, the regular water that everyone else is drinking is only 70% clean which makes our 76% clean water a really good deal. And if you don't believe us, just look at the people lining up to drink it. Yes, the lines used to be longer, but still, there are hundreds lined up, and they look like healthy people. This should be proof enough."

At this point, someone yelled: How will you clean up the water?

> They answered: We will dump a lot of detox tablets into the water, so much that the percentage of sludge will gradually be reduced.

> Someone else yelled: Will you ever stop the

While this film is more interesting than your average Marvel film, it isn't a completely different type of movie. You still have the standard fights, car chases, and ties to other Marvel comic book films, all of which ultimately get in the way of the actual story being told. The most interesting part of this film, and the source of most of the character conflict, is found in the clash of ideologies between Killmonger and T'Challa. This is a movie in which the hero gets to learn from the villain, who has a point but is going about executing his point the wrong way. There are a lot of themes at work in this film. There's the aforementioned theme of isolationism vs. expansionism but there's also themes of oppression, culture and spirituality vs. technology, and colonization. When Killmonger is on screen, these themes are brought in focus and the film becomes far more interesting, even if the film's exploration of these themes is surface-level — this is a Marvel film after all.

were entertaining enough, but ultimately

just padded the runtime of this movie that could have used a few more minutes exploring its themes.

Overall, I really enjoyed Black Panther. It was a solidly entertaining movie that had some interesting themes it didn't get to explore quite enough. The villain was incredibly charismatic and engaging while on screen and I wish the film had more of him. The performances are great and the film should please most moviegoers. It was a little bogged down in world-building and there were a lot of generic-looking action scenes with way too much many special effects, but the movie still offered me enough to stay engaged. ◊

Grade: B+

The second well's dig-

gers were caught in the act but many were permitted to run away.

They were soon replaced by new well keep-

Some of the new well keepers had once, long ago, drank the fresh water, and knew how it looked, smelled, and tasted. Others had never tasted it. They'd only read about it in books, and were certainly committed to the idea of fresh water.

The new well keepers spent a long time examining the muddy waters in the old well and then one day they announced:

"Listen people, 76% of this water is still fresh. Only 24% is toxic. And we promise we will clean it up but this will take 10 years. In the meantime, we urge everyone toxic sludge leak?

They answered: No. But we will make sure our supply of detox tablets is very large.

Someone asked: Will the water be fresh again?

They answered: It will look, taste, and smell fresh. Isn't that the same thing?

Of course, I tried to point out to my student the relative "simplicity" of this allegory, in how it simplifies the complexity of The Cooper Union's situation. To which she answered:

All allegories are simple and flawed. I am just trying to give you a sense of the bitter taste in my mouth. And how it seems to be altering *my taste buds.* ◊