Mano–a–Mano

It was just an average October Friday night at 5050 Anthony Wayne Detroit, but under the surface the pressure was building, causing the temperature to rise. Up on the third floor the ECEs had lost their spark and they were getting kinda short. Meanwhile the CS majors were struggling to find some logic in it all. Down a couple floors stress and strain from the MEs was getting on the BMEs last nerve and they decided to show some muscle. The MEs saw it coming and started to gear up for the fight.

When the tension finally got to be too much the BMEs drew first blood. But, the MEs brought out a rack and pinned ‘em. That cut the BMEs to the bone, but they still had a lot of heart. The battle continued with the MEs using a little jig to avoid the BMEs attempts to connect a tissue to tissue knuckle sandwich.

The ChEs didn’t like this at all but, they couldn’t seem to find even the most basic solution, so the CEs jumped in and tried to bridge the divide between their colleagues. Despite their best efforts they couldn’t pave the way to harmony amongst the majors. The IEs where observing all of this and processing the situation in hopes of finding an efficient method to stop the mess before they came to the end of the line.

By this time things were getting ugly. The MEs had thrown in a wrench and nearly found the BME Achille’s Heel. Just then the MS&E majors came in with just the right substance to get the BMEs to walk away happy, while also giving the MEs the leverage to turn over a new leaf. In the end the BMEs and MEs discovered they had more in common than they thought. Together they designed a new era of balance in the ENG.
Nerd vs Geek: Pick your side!

Infographic: This study of twitter shows the co-occurrence of word with nerd or geek.
Original Poems for Engineers:
Written by TBP initiate Melissa Wrobel

Haikus
Pulling all-nighters
A 40 percent average
Engineering's tough

Rorschach ink blot test
"And how does that make you feel?"
Not a real major

Limericks
There once was an initiate from Wayne State
Who began her signatures late
She started to pout
But they can't kick her out
'Cause her Sam's Club card is great!

Do you know the initiates (electees)?
Match the initiate to his/her interesting fact.

1. Nathan Cobb
2. Melissa Wrobel
3. Alex Lamb
4. Mustapha Zebib
5. Adam Basha
6. Amelia Zelenak
7. Maria Guido
8. Brian Centala
9. Maryssa Mercer
10. Anant Patel
11. Mikhail Bordyukov
12. Justin Khami
13. Subramamiam Sunderaswaran
14. Dr. Marcis Jansons

a) Is a model
b) Was a girl scout for 12 years
c) Is a dance teacher
d) Can swim like a shrimp
e) Can speak 4 languages
f) Helps put on church play with DSO for 250 people
g) Plays on Quidditch team
h) Likes to talk to random people
i) Author on a text book
j) Studies proofs in free time
k) Built his own server for his home
l) Double majoring in finance and chemical engineering
m) Adopted kittens from College of Engineering
n) Favorite sport is basketball
Comics

**THE CUTTING EDGE**

By: Robert Siegel

All of us experience a morning in which we just don't feel like getting up. On this day you can hear the wind blowing and the freezing rain pounding fiercely against your window. Despite the fact that you have a class at 8:00 AM, math class and a job interview at 10:00 AM, you turn your alarm off, unplug your clock, and conclude that you need to rest for a few more hours. It's cold and disgusting out making it so easy to simply sleep the day away. But once continued procrastination only worsens the situation you're in; sometimes a little guilt starts to set in... and as you begin to doze off, it almost seems as if you can hear whispering voices swirling around your head.

*Wash me!!*

**B**ed **H**ead

*Get the hell up - you lazy bum!!*

**A**larm clock (turned off)

*Say the phone bill!!*

**W**ater me!!

*Say the electric bill!!*

**D**ead plant

**T**here are two bills (should be sent):

Phone (about to be disconnected)...

Homework (should be done)...

**W**allet (empty), bills (should be sent),

**L**etters (should write people back).

---

**ADVENTURES IN COLLEGE**

Econ

*Something went wrong!!*

Well, won't stop after the break!

**American Lit**

I just want you all to think about this assignment...

**Spelling break? Oh yeah!**

**Eng**

*Get you all to heaven, even if they're dead!!*

**Romance was once....**

**Sure!**
Initiate Taxi Cab Confessions

Adam Bash  BME Junior
I am capable of condensing complex concepts to extract and extrapolate important data from given information especially within the areas of Physics and Mechanics problems involving 2-D and 3-D analysis. Accompanied by a strong foundation in Calculus, Statics, Mechanics and other disciplines, I possess a strong desire to figure out why something works as well as how it works. Life-long learning is a priority and my inspiration stems from the ability of mathematics to extrapolate complex concepts from simple assumptions and fundamental laws. For instance, bending stress, a fundamental engineering principle, is derived from static equilibrium equations.

Additionally, modeling is another important aspect of engineering. Within my design coursework, I’ve developed model building skills using CAD software such as NX 7.5 to develop, with team effort, a functional prototype. With this experience, I've improved my leadership and critical thinking skills especially when overcoming unforeseen obstacles during the design process. Presentation of the prototype to a panel of judges earned the team second place in the PACE (Partners for the Advancement of Collaborative Engineering Education) competition for its Catheter Stabilizer Design. Moreover, I am a persistent and capable problem solver as illustrated by the problems and challenges overcome during this team-oriented process and other academic experiences, including research.

Alex Lamb  CE PhD Candidate
Alexander is in the final year of his Ph.D. in Structures at Wayne State University where he does research modeling civil structure instability. His work experience has also allowed him to specialize in the bridge design and evaluation field where he is the primary contributor to two text books relating to the topic. He frequently finds himself involved in the Civil Engineering community. His list of service includes a Presidency in the honors organization Chi Epsilon, Officer in ASCE student chapter, and Founder of Concrete Canoe at Wayne State University that has received numerous awards and recognition.

As a past part time faculty member in the Civil and Environmental Engineering department, he has had the opportunity to help with the development of the next generation of engineers and looks forward to the continued progress of the profession. Gaining acceptance to the honors organization Tau Beta Pi will be the next step to advancing Alexander’s shining professional career.
Amelia Zelenak  BME Junior

Hi! My name is Amelia Zelenak and I am a junior in the Biomedical Engineering program. I'm fascinated by anatomy; in middle school, I checked out anatomy books from the library and would read them whenever I had free time. Thus, I was determined to become a doctor and started shadowing various doctors and physicians. It was when I was shadowing a cardiologist that I came across a biomedical engineer instructing the doctor during surgery on how to insert the pacemaker leads. That's when I knew I wanted to boss doctors around (haha) and become a biomedical engineer.

I enjoy cooking, reading, creating, and traveling. Over the summer, I had the privilege of working in a research lab in Shenzhen, China for 6 weeks.

Anant Patel  ChE/Finance Senior

My name is Anant Patel. I am a dual degree student in Chemical Engineering and Finance. I am part of several organizations on campus such as AICHE, FMA, GLOBEMED and Theta Tau. Also, I am planning to pursue a graduate degree in Financial Engineering a year or two after completion of my undergraduate degree. I love teaching people, and I am currently working on a tutoring project involving Boxers Club of Detroit and College of Engineering.

Initiation Quiz  Part 1

1. What was the maximum number of initiates we voted in during one semester?

2. How many times did we vote in this many new members?

3. Who was/were the MVP(s)?

4. Name some important people who initiated then.

5. What percentage of active membership do you need to vote ‘yes’ to initiate someone?
Brian Centala ME/Pre-Med
Junior
As a Mechanical Engineering student and a pre-
medicine student I always get the question “Why
would you do that to yourself?” The answer to this
question is because I like both. The next question
that comes up is “Why not do Biomedical
Engineering?” The answer to this question is
because I didn’t take the Chemistry placement
exam my freshman year. Although my aspirations
are to be a doctor, I couldn’t imagine getting my
undergraduate degree in biology or chemistry.
Having a mechanical engineering degree means
that I will have a practical degree. This degree will
allow me to do whatever I want to do and work in almost every single field imaginable. Even though a
Biomedical Engineer might be better suited for working in the medical field as a whole, the engineering
in the medical field that interest me, is biomechanics which fits right into my major. Other information
about me is that I attended Lutheran High North in Macomb Michigan for High School. I tried out for the
football team at Wayne State and the fourth day of camp I got a concussion and had vertigo for a month.
In the picture is my brother on the left (not my twin, he’s two years older), my cousin in the middle, and
me on the right.

Justin Khami ChE Senior
I am a chemical engineering major at Wayne State
University. I’ve grown up and lived in Sterling Heights all of
my life. My favorite video game of all time is a toss up
between Super Mario 64 and Metroid Prime. I am a senior
looking to graduate in May 2014 and will be working at Ford
Motor Company upon graduation. I enjoy listening to a wide
variety of music, mostly indie rock and electronic music. I
am just starting to put together a home theater system and
appreciate anything networking/computer related. I like to
build computers and experiment with some networking
devices such as putting together my own NAS. The best
concert I’ve been to was Andrew Bird at the Fillmore.

Initiation Quiz Part B

6. Nationals hands out a membership award to special chapters. How does a
chapter get the membership award?

7. How many times have we won the membership award?

8. How many years has Nationals awarded the membership award?

9. What was the maximum number of people turned away at a GBM 3?
Maria Guido  ME Junior

My name is Maria Guido, and I am a mechanical engineering junior. I worked at Chrysler last summer in Powertrain Transmissions and was invited back. I’ve been pulled over only once so far in my lifetime and received a ticket for impeding traffic. I once spun out on an icy road and all I could think in that split second was, “hit the garbage cans,” what I learned in drivers training if the only other choice was a tree. The only time I’ve ever sang karaoke in public was at Mickey’s Tavern in Calumet, MI, to the song “Lovin’, Touchin’, Squeezin’” by Journey. I’ve fallen asleep at a John Mellencamp concert, but to my defense, I was really tired. I’ve learned how to drive a stick shift in a 1970 Mustang, after stalling a significant number of times. I played volleyball in the seventh grade and managed to get the worst nosebleeds I’ve ever experienced. How I managed to get severely hit in the nose during a volleyball game is still a mystery today. I moved on to soccer in high school where I continued to get severe nosebleeds but those were legitimate. I own a Green Bay Packer cheese hat and maybe someday, I’ll get to go to the one and only Lambeau Field. Before I die, I desperately want to go skydiving and partake in a pie eating contest. Or maybe a hot dog eating contest and face off against Joey Chestnut, even though I would be destined to lose miserably. Currently, I am sitting in Peoria, IL as I write this.

Maryssa Mercer  BME Sophomore

My name is Maryssa Mercer and I am a second-year Biomedical Engineering student. I am involved with several student organizations at Wayne State, including the Biomedical Engineering Society, Detroit Quidditch, Christians on Campus, Run WSU, and Wayne State Detroit Style Ballroom Club. I live on campus and love to explore midtown and downtown Detroit on the weekends: you will find me at all the seasonal festivals (Jazz Fest, Dlectricity, Noel Night, Winterfest, etc) and many Thursdays in the D events! I LOVE to cook, and have probably posted more pictures of delicious food on social media sites than I have of my friends in the past year. :) Pi also am notorious for terrible puns. Tau don't say I didn't warn you!

Initiation Quiz Part III

10. Does anyone ever reinitiate and make it in?

11. Who is allowed to the initiation ceremony?

12. How many people do we need to have an initiation ceremony?

13. What happens when an initiate cannot make initiation?
Melissa Wrobel  BME PhD Candidate
The basics/boring stuff:
I graduated from the University of Michigan Ann Arbor in 2010 with a Bachelors in Materials Science Engineering. Since then I have been at WSU studying Biomedical Engineering. This past summer I completed my Masters degree and will be working towards my PhD, with a focus on neural tissue engineering, in the coming years.
Now for a bunch of weird & random facts about me:
Favorite Color: Green
Favorite Television Show: Friends
Debilitating Phobia: Birds (not kidding)
Favorite Animal: Penguins (yes, I know...still not kidding)
Ideal Pizza Topping: Bacon & Jalapeno
Ideal Ice Cream Topping: Butterscotch
Favorite Pandora Station: 70s Rock
Bizarre Celebrity Crush: Kevin Spacey
Celebrities I Hate: Michelle Trachtenberg and Sally Field
If nothing on this list sparks your interest (or concerns you) come find me and we'll find something to talk about! I've got a hundred crazy stories and I'd love to waste your time with them all :)

Mikhail Bordyukov ME Junior
My name is Mikhail Bordyukov, I am a Mechanical Engineering junior at Wayne State University. I love Pythagorean Theorem, my favorite trig function is Cosine, and I used to do simple addition in my head to fall asleep as a kid, (6+6=? kept me up at night, literally). My favorite activities include sleeping, procrastinating and napping (not same as sleeping). I would like to be part of Tau Beta Pi to make long lasting friendships and professional connections to help me navigate through my engineering career.

Mustapha Zebib ECE Senior
My name is Mustapha Zebib and I am a senior studying electrical and computer engineering in addition I am also pursuing a minor in economics. I am a member of IEEE, the National Society of Collegiate Scholars, and currently serving as the President of the Collegiate Entrepreneurs’ Organization (CEO). I really enjoy playing sports (especially basketball), biking, new technology, traveling, and politics. I am very enthused about getting involved with TBP in my final semester at WSU. It’s a great way to further participate in the College of Engineering and also an opportunity to meet outstanding fellow students. I am planning on getting my Master’s degree next year and a doctorate degree afterwards. Please feel free to get in touch with me anytime at mzebib@wayne.edu or connect with me on Linked In at http://www.linkedin.com/in/mzebib.
Nathan Cobb  BME Senior
My name is Nathan Cobb and I am a senior studying Biomedical Engineering here at good ol’ WSU. I have one more year left once this one is over, after which, I plan on going to med-school. As far as work goes, I am a student assistant in the admissions and athletics department here on campus. I’m from a small village downriver (South Rockwood) that I’m sure most of you have never heard of unless you already know me (or unless you are Nigil). My interests include, but are not limited to: traveling, food, movies, and sports (playing more so than watching). A fun fact about me is that I beat the game Bop-It Extreme.

Subramaniam Sunderaswaran IE Master
“All play and no work” is what I’ve been doing all my life. Subra as my friends call me, I happen to hail from the Far East (South India) and will do everything except studying (from collecting coins to reading novels to movies/music). Patient, diligent, god-fearing and a quiet guy, with lots of time for friends is the best way I would describe myself. My year and a half at WSU has been a roller-coaster ride filled with happy unforgettable moments. From late night study to early morning parties each day has been a gift and has been throwing challenges. Following sports has been my passion. Baseball, Tennis, Soccer, Cricket, F1… have taken most of my time, soccer deserves a special mention as I’m a player too.

Dr. Marcis Jansons  ME Faculty
I have two cats, brother and sister, who as kittens were found on the COE loading dock by Marvin and Gene, all covered in construction glue. They were part of a litter, trying to nurse from their dead mother. It was Friday before Labor Day, and Gene was going to take the two remaining kittens to the pound after work. I couldn’t decide which to take home, so I took both. Both are now doing well. The boy now rules the house, including over our rescued Lab and Pit Bull. I also like to make jam and in August made a few gallons from plums, blueberries and raspberries so the family can make it through the winter. I am a member of the Detroit Community Chorus and own three Windmill Pointe Summer Volleyball League Championship t-shirts. I have an eight-year old daughter who is on her school's chess team. My front teeth are implants as I knocked out my real ones in a volleyball tournament at the Coast Guard Academy.
What Exactly Is a Doctorate?

Ever wondered what getting a doctorate really means? Matt Might, professor of Computer Science at the University of Utah, explains it perfectly in this graphic presentation that starts with a simple circle:

<table>
<thead>
<tr>
<th>Imagine a circle that contains all of human knowledge:</th>
<th>By the time you finish elementary school, you know a little:</th>
<th>By the time you finish high school, you know a bit more:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>With a bachelor's degree, you gain a specialty:</th>
<th>A master's degree deepens that specialty:</th>
<th>Reading research papers takes you to the edge of human knowledge:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Once you're at the boundary, you focus:</th>
<th>You push at the boundary for a few years:</th>
<th>Until one day, the boundary gives way:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
<td><img src="image9.png" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>And, that dent you've made is called a Ph.D.:</th>
<th>Of course, the world looks different to you now:</th>
<th>So, don't forget the bigger picture:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**Puzzles and Games and Such:**

Source: Edmund Burke

![Image of a puzzle with letters and numbers]

Source: Deng Xiaoping

![Image of another puzzle with letters and numbers]

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**PUZZLE CARD**

YOUR PROBLEM is to remove four straws from the 24 shown here and have five squares left.
Games and Puzzles and Stuff:

The 12 dots problem: Without lifting your pen, draw 5 straight lines to connect all the dots in such a way that you end up where you started.

Number Blocks: The missing numbers are integers between 0 and 12. The numbers in each row add up to totals to the right. The numbers in each column add up to the totals along the bottom. The diagonal lines also add up the totals to the right.
ATTENTION MEMBERS: PLEASE SUBMIT BABY PICTURES FOR NEXT MONTHS BENT! rsec.mie.tbp@gmail.com

Contributors:
Amani Alkayyali: Initiation Quiz, Do you know the initiates
Mustapha Zebib: What exactly is a Doctorate
Melissa Wrobel: Original Poems for Engineers

Image sources:
http://i-cdn.phonearena.com/images/articles/88108-thumb/geek-vs-nerd.png
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http://1.bp.blogspot.com/_AZaPYn-5kD4/TO6YzNeK27I/AAAAAAAAADY/IfFMJ3dCUFc/s1600/026.jpg
http://www.wuzzlesandpuzzles.com
Answers:

Initiation Quiz:
1. 23; 2. 2; 3. a.Katie Latimer, b.Coleen Hill-Stramsak; 4. A. Two current officers: Pawel Popiel, Nigil Valikodath, b. Executive Director/Secretary Treasurer of Nationals: Curt Gomulinski; 5. 75%; 6. a. Initiating more people than the previous year; 7. 1; 8. 4; 9. 3; 10. Yes! Those 3 turned away, came back the next semester and made it through. Some people just require a little more time to show their exemplary character.; 11. Tau Bates and those initiating.; 12. 5; 13. That person must attend another school’s initiation.

Initiate Matching:
1. h; 2.b; 3.i; 4.n; 5.j; 6.a; 7.e; 8.f; 9.g; 10.i; 11.d; 12.k; 13.e; 14.m

Cryptograms:
Edmund Burke: You can never plan the future by the past.
Deng Xiaoping: It doesn’t matter if a cat is black or white, so long as it catches mice.

Puzzle Card:
Remove 2, 11, 14, 23

Directions to...
Game Night
1. Stand up.
2. Face left.
3. Take 2 steps forward.
4. Face left.
5. Take 2 steps forward.
6. Raise hands above your head and stretch.
7. Take a deep cleansing breath.
8. Face left.
9. Put your right foot in and shake it all about.
10. Take 4 steps forward.
11. Cha Cha real slow.
12. Slide to the left.
13. About face.
14. Take 2 steps forward.
15. Descend slowly into your seat.