

Industrial Blueprint

-The IOE Student Newsletter-

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A joint venture from APM and IIE

February 2006

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A Few Words From the Editor . . .

This is the February issue of the Blueprint, the last issue before a large portion of the adventurous student population deserts Ann Arbor for spring break! For those of you who don't lead an exciting enough life to leave, you should be happy to know that one of our student writers was kind enough to help fill that void of no classes with ideas of what to do around our wonderful A².

Second on the list of must read articles located on the back of this page is "Sudoku: Crosswords for Engineers." Yes, that addicting game you'll find half of your class filling in instead of the crossword puzzles which most engineering students, including myself, can barely understand the questions let alone attempt to answer them in the allotted space. Also, I doubt you knew that it was invented by a retired American architect! To learn more about the history and rules of play, read on.

The last unique article is about the Chinese holiday calendar and celebration food. This year Chinese Valentine's Day is in July. I'm glad the US celebrates it in February, chocolate melts in July and I won't be having any of that!

Lastly, this issue still contains course reviews and that infamous back page of fun, so check them out as well.

Have a wonderful break!
~ Kristin ~

Upcoming Events

February 25	Spring Break Begins
March 6	Classes Resume
March 16	March Madness Begins

Visit the IOE Department Website:
<http://ioe.engin.umich.edu/degrees/ugrad/ugrad.html>

IOE Student Societies

Alpha Pi Mu (APM)

<http://www.engin.umich.edu/soc/apm>

Engineering Global Leadership (EGL) Honor Society

<http://www.engin.umich.edu/students/support/egl/>

Human Factors and Ergonomics Society (HFES)

<http://www.engin.umich.edu/soc/hfes>

Institute of Industrial Engineers (IIE)

<http://www.engin.umich.edu/soc/iie>

Institute for Operations Research & the Management Sciences

<http://www.engin.umich.edu/soc/informs>

Outstanding Multicultural Industrial Engineers (OMIE)

<http://www.engin.umich.edu/soc/omie/>



-The IOE Building-

-Who needs spring break when I can hang out here? -

Sudoku: Crosswords for Engineers

By David Ollinger

Finally, there's a crossword puzzle in our language – a crossword puzzle that we know all the answers to (yes, *all* nine of them). If you are unfamiliar with this highly addictive number game, do yourself a favor and pick up today's copy of the *Daily*. In the meantime, I'll try to get you caught up.

The word sudoku comes from the Japanese phrase *suji wa dokushin ni kagiru*, which roughly means "only single numbers allowed." The traditional game board consists of a 9 x 9 square grid. Heavy lines divide the grid into nine 3 x 3 boxes. The goal is to fill in the grid with the numbers 1 through 9, without repeating a digit in any row, column, or 3 x 3 box. Some spaces are filled in on the initial board. This is to help you get started. Easy puzzles have many numbers filled in at the start, while difficult puzzles have fewer.

The game was invented in the United States by retired architect Howard Garns. The first example of sudoku was published in *Dell Pencil Puzzles and Word Games* in 1979 under the name "Number Place." The puzzle initially attracted little attention in the US. The game did however gain the interest of Japanese puzzle magazine giant, Nikoli. In 1984 Nikoli published the game under the name "Sudoku." It was an almost instant hit. From Japan the game traveled to England, where it was printed in London's *The Times*, and then back to the US, growing in popularity at each stop. In 2005, the *New York Post*, *San Francisco Chronicle*, and *USA Today* began including sudoku puzzles in their daily issues.

Unlike traditional crossword puzzles, a sudoku can be solved with logic alone – plain and simple. No useless stage and screen trivia. No obscure synonyms. And most importantly, no guesswork. So you don't have to be a movie buff or walking thesaurus to complete a puzzle. You only need to be logical, patient, and a little bit clever (this is where engineers are at a clear advantage). And with some practice, you'll soon be developing your own strategies, racing your personal best time to finish a puzzle, and before you know it... well, you just might have a full out addiction.

So if you dare, buy your first sudoku book today. But be warned, you may never take notes in class again.

Spotting 'Em Out: Freshmen

By Matthew Heinowski

How's the weather down there FRESHMEN? Is it just me or is the freshmen class the shortest bunch ever! I am by no means a tall fellow, but I know that four years ago when I laid foot on my first Bursley-Baits bus, I was taller than they are now. It takes me back to my philosophy about how the dinosaurs are not extinct, but merely evolved into lizards and various other small reptiles. I mean come on, you cannot honestly say when you look at a freshmen with their big book bags and confused looks that you were once that small? Are we humans headed down the same road? Only time will tell...



Spring Break in Ann Arbor

By Zhi Wei Cheng

Stuck in Ann Arbor during Spring Break? Don't fret! Here are some places you can go to!

(Extracted from the Ann Arbor Visitor's Guide)

Ann Arbor Hands-On Museum

220 E. Ann St., Ann Arbor

www.aahom.org

Ignite your imagination! Explore nine unique galleries containing more than 250 interactive exhibits. Learning made fun for all ages in an informal environment where hands-on experience is the best teacher.

Domino's Petting Farm

24 Frank Lloyd Wright Dr., Ann Arbor

www.pettingfarm.com

Built in 1925, this historic tribute to farming combines fun with education. Enjoy petting the animals, hayrides, feeding the ducks, demonstrations, strolling the 15-acres of pasture, or a relaxing picnic lunch.

Gerald R. Ford Presidential Library

1000 Beal Ave., Ann Arbor

www.fordlibrarymuseum.gov

Changing lobby exhibits showcase material from the archival collections and artifacts borrowed from the Ford Presidential Museum in Grand Rapids. Free admission and parking. Week-days.

Motawi Tileworks

170 Enterprise Dr, Ann Arbor

www.motawi.com

Nationally recognized handmade art tile studio. Visitors will be surrounded by historically inspired, beautiful art tile and have the opportunity to see Motawi Tile being made from scratch by

local artisans. Unique tile sitings change daily as the latest creations emerge from the kilns. Collectible decorative tile is on display and for sale. Mon-Fri, 9am-5pm. Tours by appointment.

Planet Rock

82 April Dr., Ann Arbor

www.planet-rock.com

One of the largest indoor climbing gyms in the world. Unique terrain caters to complete novices and seasoned pros alike. Ages 5-95 are challenged by the quick and easy routes as well as tough competition grades.

The Scrap Box

581 State Circle, Ann Arbor

www.comnet.org/scrapbox

A wonderful resource for unique, inexpensive art and craft materials for families, teachers, scouts and artists. Many of the scraps, from factories, are sticky-back, so they are easy to use. Ideas and samples are on display for inspirations- bring a camera, shop and get creative.

University of Michigan Matthaei Botanical Gardens

1800 N. Dixboro Rd., Ann Arbor

Situated on a lush 350-acre oasis of diverse plant life. Outdoor nature trails wind through various habitats native to Michigan, while the indoor conservatory fascinates visitors of all ages with a rare glimpse of plants from around the world. The Gardens sponsor classes, lectures, and special events, making it an educational resource of great beauty.

Ypsilanti Automotive Heritage Collection & Miller Motors Hudson

100 E. Cross St., Ypsilanti

www.ypsiautoheritage.org

Learn about the unusual role Ypsilanti and its pioneers played in the history of the American automobile. See vehicles of by-gone eras, study signs and records of early area auto dealers and solve the mystery of the world's most notorious highway map.

Top Ten Things to do on Spring Break

By Sarah Kamilaris

10. Follow the path of the penguins in Antarctica
9. Go whale watching in Alaska
8. Go canoeing down the Amazon
7. Climb the Egyptian Pyramids
6. Go to Australia and play with the kangaroos
5. Go sailing in the Bermuda Triangle
4. Hike the Himalayas
3. Go to Iran on a hunt for Nuclear weapons
2. Go to Detroit, its just as exotic
1. Go to the OC, and find Seth

The Answers to Life's Important Questions in < 100 Words

By Steven Agacinski

So many times I have written down the all-to-familiar symbol for infinity, ∞ . Though it has ruined many nights as I have tried to find limits converging toward it, I never knew the name of the accursed symbol. How could I accurately direct my fury if the only name I had to use was "infinity symbol". The lack of auditory aesthetics merely infuriated me more. But that all changed. I now know to focus my rage at the word *lemniscate*. "Infinity sign", "sideways eight", and any other possible combinations are now out of my vocabulary. It's lemniscate I hate.

IOE 452 Course Brief

By Arthur Syailendra

For those of you who love IOE but do not want to specialize in manufacturing, production, quality control, or ergonomics, you may want to try this new breed of science. IOE 452 basically gives you all the starting tools to understand what's happening behind the world of finance's curtain. Currently I am taking the class with Professor Vlad Babich. 90 minute lectures are twice a week. At the beginning, the class was pretty much similar to IOE 201. However, at the second half of the class, the class becomes more interesting as we are taught how to implement strategies for our portfolio. The homework itself is done in group but it takes quite sometime to finish it, even in groups. The good thing about this class is I learned a lot of "finance world" jargon that will be very useful when pursuing a career in a finance field. However, the bad thing about this class is the material itself can sometimes get really boring. I highly recommend this course especially for those of you who interested in Financial Engineering.

Accounting 271 Course Review

By Adam Clarke



Take this class if you're going for the B-school, *not* if you're in IOE. I don't really want to get into *my* reasons for taking Accounting 271. To be brief, Accounting 471 was closed out, I had a buddy who was going to take it at the same time, and I figured, "Well, if the B-school kids have to take it, I should be able to handle it." Don't take 271 thinking that it's going to be a break from north campus class and some sort of a blow off. Acc 271 is a non-stop competition for good grades, plain and simple.

The class is structured around three exams: two midterms and a final. Yeah, there are homeworks, but they don't mean anything because everyone more or less gets full credit on all of them. Each of the three exams covers one

of three sections of the textbook/lecture outline conglomerate that ends up running you about \$100. Lectures are a single hour once a week with 2 hour long discussions that attempt to fill holes that Professor Klemstine can't fill. These holes aren't that big as Klemstine's notes are extremely thorough and have been meticulously honed over past years. If you can find a textbook set from a past semester, more than likely the only thing that has changed may be dates. Exams will more than likely fall on Fridays, which is a nuisance to say the least. Begin studying early in the week if you plan on doing well. Study and do homeworks with other people and be sure you comprehend everything going on in the calculations and problems. The most important part of the homeworks are the practice quizzes and lecture review questions as they are mirror images of exam multiple choice problems (which are a bulk of the three exams, the third is all multiple choice). Practice midterms are the greatest tool for preparation for the exams as problems all fall under the same general style and are unchanging term to term.

If you are at all interested in learning how to be an accountant for practical purposes or learn the different facets of a balance sheet, etc. do not take this class. I personally found that the only knowledge that I gained from lectures, discussions, homework sessions, and exam reviews were methodologies on how to tackle various types of multiple choice or open-ended exam questions. The class is so ultra-competitive that there is no time for any real learning.

IOE 373 Course Review

By Zhi Wei Cheng

Most people will cringe when they learn they have to take yet another programming course (especially after Eng101!) After all, isn't that why we're in IOE and not EECS? Fortunately, the programming language that we have to learn in this course is Visual Basic.Net. Compared to Visual C++, VB.Net is much more user-friendly. With a Graphical User Interface (GUI) similar to Windows, it is easy for one to navigate his or her way around the program.



A big plus point for taking IOE 373 is that the teaching team is very experienced. Professor Daniel Reaume, together with GSIs Mustafa Sir and Dan Earl Jr. (DJ), are more than capable of helping you build a strong foundation in VB.Net. The GSIs were often hounded by desperate students who were having problems with their program but they were always willing to take the time to explain the concepts and sometimes suggest a more efficient way of writing the program.

As for the course workload, there were 3 mid-terms, 10 homework assignments and a couple of quizzes. The homework assignments started out as easy, but as the term went on, assignments became more challenging, so do not be surprised if you find yourself staying up till the wee hours of the morning trying to figure out what's wrong with your code! I found the homework questions interesting because individual homework is added onto the previous homework, culminating to a final completed project after the last homework.

Out of the 3 mid-terms, 2 were hands-on mid-terms while 1 was a theory exam. The first hands-on exam proved to be a baptism of fire for most people, as many found it difficult to program under exam conditions. The time constraint proved to be a stumbling block too.

A few pieces of advice to help you ace this course:

- 1) Practice the examples in lab and those gone through in class
- 2) Start your homework early and go for office hours if you need help – the GSIs can't help you if you only start doing your work on the submission day
- 3) Time yourself when you're doing problems to mimic Exam conditions
- 4) Practice!!!! (Nothing can beat the old adage – Practice makes perfect!)

Chinese Holiday Calendar and Celebration Food

By Jingjin Xie

Don't think that Chinese New Year is your only chance to enjoy a Chinese festival. China has a number of traditional holidays throughout the year. Many holidays have a special celebration food! Of course, because Chinese holidays are based on the Chinese lunar calendar, the date changes from one year to the next. Here is a calendar with information about China's major traditional holidays in 2006, the Year of the Dog.

Chinese New Year, or the Spring Festival - January 29, 2006

This is the most important festival in China. While nearly everyone has heard of Chinese New Year, fewer people realize that the celebrations last for a full two weeks, culminating in the Lantern Festival.

Food: Fish – A wish for abundance in the coming year

Spring Rolls – Wealth

Rice Cake (my favorite!!) – Hope of improvement in life

Dumplings – The end and the beginning of time

Date: First day of the first Chinese lunar month

Chinese Lantern Festival - February 12, 2006

Lantern Festival marks the last day of the Chinese New Year season. Traditionally, the Lantern Festival is a day for lovers. People play the Lantern Riddle game, trying to guess the answers to the mysterious riddles stuck on the lanterns.

Food: Sticky Rice Dumplings - Reunion

Date: Fifteenth day of the first Chinese lunar month

Qing Ming (Tomb Sweeping) Festival - April 5, 2006

A tradition dating back thousands of years, this is a day for the living to pay tribute to deceased relatives by visiting and cleaning their gravesites. In addition to cleaning the gravesite and replacing dead flowers, it is traditional to bring gifts of wine and fruit for the departed spirits.

Date: Qing Ming was originally held on the third day of the third Chinese lunar month. It is now held on April 5th, except for leap years when it is held on April 4th.

Dragon Boat Festival – May 31, 2006

There are few sites more exciting than a fleet of dragon boats racing toward the finish line. In the legend, Zongzi was thrown on the water as a sacrifice to Qu Yuan, both a statesman and China's first known poet, and to nourish his spirit.

Food: Zongzi - sticky rice dumplings wrapped in bamboo leaves

Date: Fifth day of the fifth Chinese lunar month

Chinese Valentine's Day - July 31, 2006

There is a beautiful story about the love between Zhi Nu (a girl) and Niu Lang (a guy) for this day. Today, star gazers celebrate it by gazing up at the star Vega, east of the Milky Way which represents Zhi Nu, and at the constellation Aquila, on the west side of the Milky Way, where Niu Lang waits for his lover to join him.

Food: Chocolate =>

Date: Seventh day of the seventh Chinese lunar month

Mid-Autumn Festival - October 6, 2006

On that day the moon is full and it is time for the Chinese people to mark their Moon Festival, or the Mid-Autumn Festival. The round shape symbolizes family reunion. Therefore the day is a holiday for family members to get together and enjoy the full moon - an auspicious token of abundance, harmony and luck.

Food: Mooncake, Duck, and Taro

Date: Fifteenth day of the eighth Chinese lunar month

Chong Yang Festival (Elder's Day) - October 31, 2006

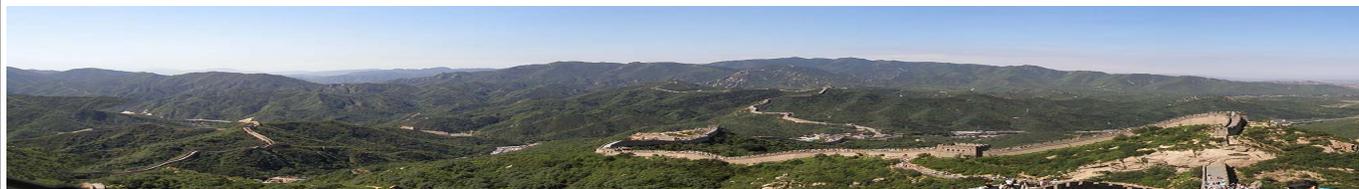
Like Qing Ming day in the spring, this autumn holiday is a time for the Chinese to visit the gravesites of departed relatives. Other customs associated with the day include hiking up a hill in search of dogwood flowers, and drinking chrysanthemum wine.

Food: Chong Yang Cake – getting higher in one's career

Chrysanthemum Wine

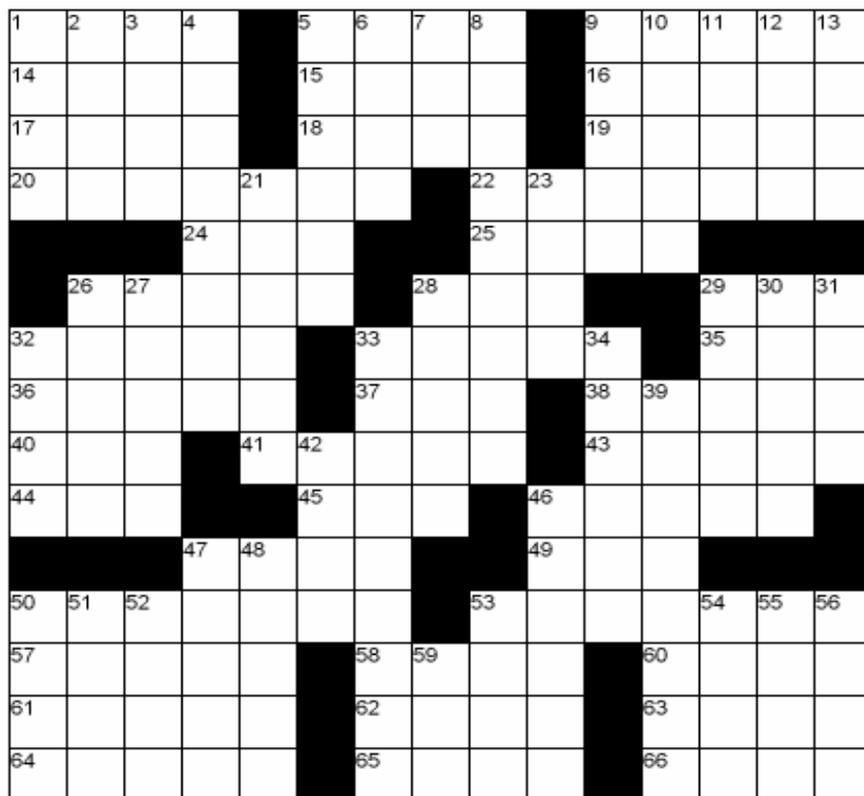
Date: Ninth day of the ninth Chinese lunar month

*Birthday: Chinese people celebrate one's birthday by having noodles as a must to wish for a long life!!



The Back Page

So Much Fun You Can Almost Taste It



Down

1. Attention-Deficit Hyperactive Disorder
2. Boyfriend
3. Hook part
4. Insert
5. Cuban leader
6. Yucky
7. Boxer
8. Epidemics
9. Spanish coins
10. Harass
11. Garnish
12. Desire
13. Sledge
21. Deserved
23. Dirt
26. Nut
27. Concur
28. Made a pot
29. Baby in the basket
30. Anonym
31. Fewer
32. Teen skin ailment
33. People of Cambodia
34. Material
39. Aleut
42. Wager
46. Not brunette
47. Liveliness
48. Week Presented by Theta Tau
50. Sound
51. Vessel
52. Challenge
53. Dorm dweller
54. Margin
55. Come close to
56. Shina
59. Central processing unit

Across

1. Syrian Bishop
5. Hi!
9. Routes
14. Deceased
15. American Civil Liberties Union
16. Recruit
17. Grueling
18. Show
19. Sharpshoot
20. Doubtfulness
22. Blossomed
24. Sticky black substance
25. Good outlook
26. Capital of Egypt
28. Oolong
29. Bad (prefix)
32. Element
33. Chafe at the bit
35. Roberto's yes
36. Chili con _____
37. Raider's of the Lost _____
38. Desert pond
40. Compass Point
41. Ladies
43. Urgent requests
44. Stretch to make do
45. North by West
46. Anoint
47. Outlaw
49. Undergrad Faculty Advisor
50. Made wet

53. rival
57. Knowing
58. Computer "button"
60. Notion
61. Guts
62. Imitated
63. Seaweed substance
64. Mediterranean language
65. Naked
66. Goody two shoes



**Always More Fun to
Come.
See You in March**

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