

Professional English – I

Introduction & Vocabulary for Math

Chixiao Chen, Ph.D @ FAET
cxchen@fudan.edu.cn

A simple survey

- Have you passed CET4 / CET 6 ?
- Have you taken TOEFL / IELTS?
- Have you attend an academic conference in English?
- Have you attend an academic conference oversea? Where is it?
- Have you talked with native English speakers? How does it feel like?

What can you get from this course ?

- Do you know the following logo?

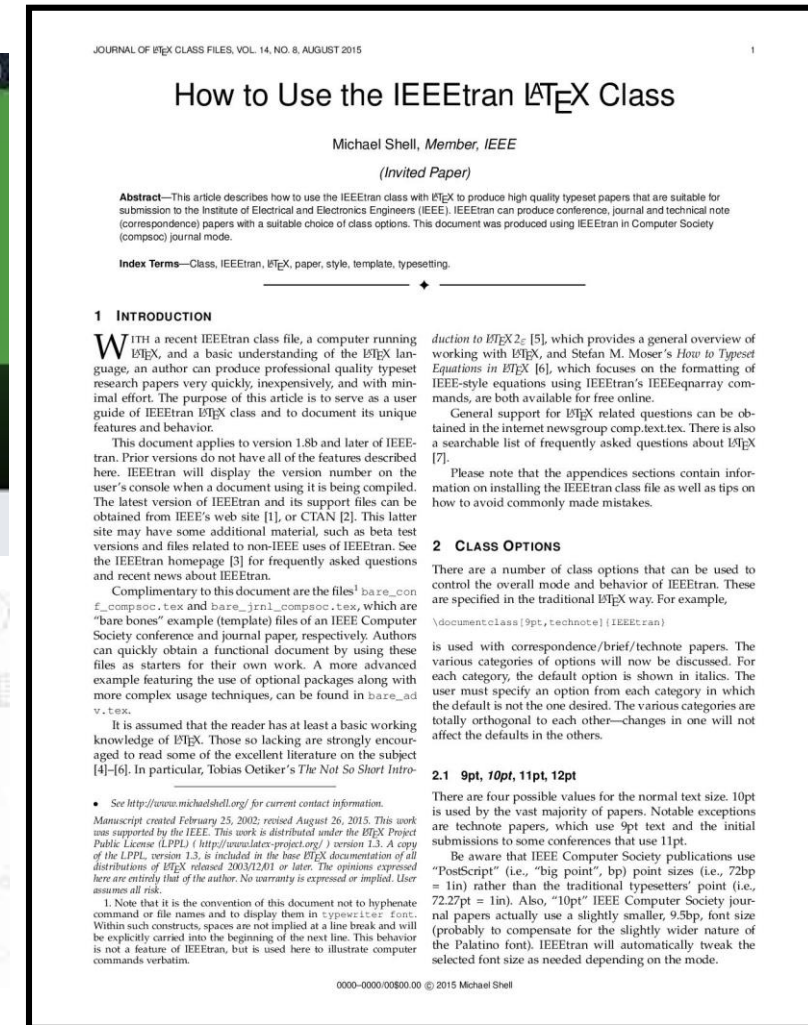


What can you get from this course ?

Paper Reading & Writing

state-of-the-art (SOTA)

the rule of thumb



What can you get from this course ?

Listening and Understanding

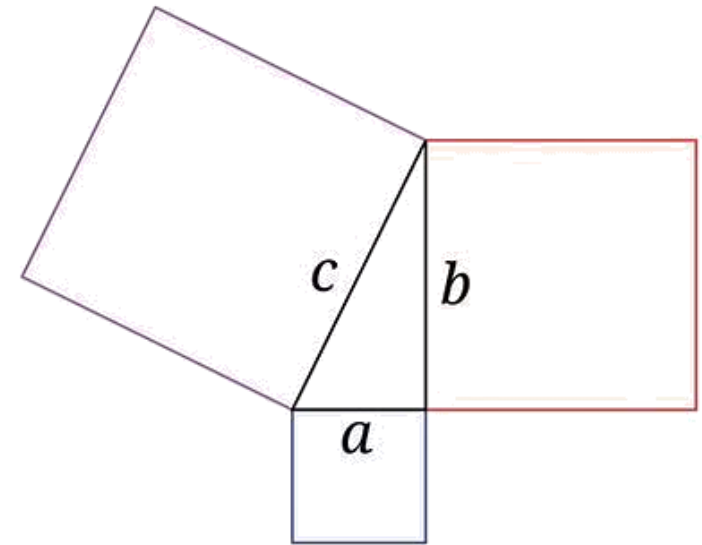


Oral Presentation

Poster Communication

- 请用英语描述勾股定理
(Pythagorean theorem)

$$a^2 + b^2 = c^2$$



Schedule

- Introduction, English for Math (Week 8)
- Reading (Week 9/10)
 - RM1: Deep Learning, a *Nature* paper
- Writing (Week 11/12)
- Listening (Week 13/14)
- Speaking (Week 15)
- Final Exam (Week 16)



<https://cihlab.github.io/course/peng.html>

Course Website and QR Code

Score

- 20% Attendance
- 20% Quiz
 - Any word on the slides/RMs can appear on the Quiz.
- 40% Final Exam
- 20% Presentation (optional) / Paper Writing →
 - Writing: one-page survey on your field



About Presentation

- The context is desired to be entry level, and 5-8 min.
- It is suggested to introduce a basic idea in your field.
 - For example, “Neural Network”, “Von Neumann Architecture”
- Only 16 vacancy for presentation
 - Plz send your topic to cxchen@fudan.edu.cn ASAP, first come first serve

Vocabulary for Math

Please take notes.

add, plus
subtract

multiply, times
product

Divide, divided evenly
dividend, divisor

quotient, remainder

factorial, power,
square root, cube

How to say:

2^7

round

integer,
positive/negative number

even, odd
real, image, irrational

Inverse, prime
reciprocal

common divisor

binary, decimal, hexadecimal
digit

Proper/improper fraction

numerator, denominator

How to say:

$$\frac{5}{9}$$

quarter

arithmetic/ geometry mean
average

exponent, logarithm

constant, variable
parameter, coefficient

Linear, polynomia

factorization

absolute value

Inequality, approximate
greater/less than

range, domain

substitute

clockwise, counterclockwise

proportion, ratio

Parentheses, brackets,
braces

Permutation, combination

Angle, vertical angle
acute angle, obtuse angle
right angle

equilateral triangle,
right triangle,
Isosceles triangle

Quadrilateral, pentagon
hexagon, polygon

Parallelogram, rectangle
regular polygon, rhombus
trapezoid

Cube, cylinder, cone
sphere

circumference, perimeter

Radian, radius, diameter

Area, volume

diagonal

Hypotenuse, base, side

Cordial coordinate

Origin, intercept, axis
slope

foot/feet
inch

1 foot = 0.3048m=12 inch

1 inch =0.0254m

mile

1m = 1609.344m

Ferrari F430 top speed = 196 mph

Celsius Fahrenheit

$$F = C * 5/9 + 32$$

Ounce / oz

1 oz=0.0283 kg 3.6oz/106ml \$3



Libra (lb)

1 lb= 0.4536 kg =16oz



Height: 9.50 inches (241.2 mm)

Width: 7.31 inches (185.7 mm)

Depth: 0.37 inch (9.4 mm)

Weight: 1.44 pounds (652 g)