Departmental Orientation for year 2 students
Dr. S C Tan

Rundown
1. Welcome speech (by Prof. V. O. K. Li)
2. Curriculum structure and programmes (by Prof. Kenneth Wong)
3. OBASL syllabus and Plagiarism (by Prof. K.T. Chau)
4. Examination matters (by Dr. M. H. Pong)

Rundown
5. Lab. matters (by Dr. W Y Cheung)
6. Safety matters (by Prof. Wallace Choy)
7. Class representatives selection (CE, EE, ElecE)
8. Electrical and Electronic Engineering Association
9. Food and Refreshments

Class Representative
- Member of the Staff-Student Consultative Committee (SSCC)
- 2 formal meetings per year
- 2 informal meetings per semester
- Certificate of appreciation
- Webpage [https://elink.eee.hku.hk/class_reps.html](https://elink.eee.hku.hk/class_reps.html)
Electrical & Electronic Engineering

http://www.eee.hku.hk

Professor Victor OK Li, Head

September 5, 2017

A broad coverage of:

- Electronic devices, digital circuits
- Integrated circuits
- Microprocessors
- Computer organization
- Programming
- Algorithms
- Database systems
- Computer networks


Greatest Engineering Achievements of Past 100 Years

1. Electrification
2. Automobile
3. Airplane
4. Water Supply and Distribution
5. Electronics
6. Radio and Television
7. Agricultural Mechanization
8. Computers
9. Telephone
10. Air Conditioning and Refrigeration
11. Highways
12. Spacecraft
13. Internet
14. Imaging
15. Household Appliances
16. Health Technologies
17. Petroleum and Petrochemical Technologies
18. Laser and Fiber Optics
19. Nuclear Technologies
20. High-performance Materials

Department of Electrical and Electronic Engineering

A broad-based general program with an emphasis on electrical energy.

Department of Electrical and Electronic Engineering

Research Opportunities

Theme Based Research Projects
- Big data for smart and personalized air pollution monitoring and health management (HK$50 millions)
- Smart grid (~HK$50 millions)
- LED lighting systems (~HK$ 20 millions)

Many more...
- Optics and optoelectronics
- Biomedical imaging technologies
- Robotics and control systems
- Wireless communication and Internet
- ...
Curriculum structure of CE, EE, ElecE
Presenter name: Prof. Kenneth Wong

Department of Electrical and Electronic Engineering

4-Year Curriculum Structure

Course subject groups in EEE

- Group A: Electrical Energy
- Group B: Electronics and Optics
- Group C: Signal Processing and Control Systems
- Group D: Communications and Networking
- Group E: Computer Systems
- Group F: Complementary Studies
- Group G: Projects
- Group H: General Engineering
- Group I: Mathematics
- Group J: Software and IT Applications

CE suggested study plan
EE suggested study plan

ElecE suggested study plan

Successful stories: EEE alumni

• Mr. Ken Law (BEng (EComE) class of 2010, MSc (EEE))
• Mr. Eric Au-yeung (BEng (EComE) class of 2010, MSc (EEE))
• Mr. Alan Chiang (MSc(EEE))
The Final Year Project turns into a start-up business

Extend the graduation project to start their IT business

3 EEE Graduates earned over $1M in 8 months

Win HK Information and Communication Technology Award

Successful stories: EEE alumni

- Dr. Miles Wen (BEng(CE) class of 2011, PhD (EEE))
Start-up business on Artificial Intelligence
Received millions dollars of investment
Successful stories: EEE alumni

• Mr. SUNDERRAMAN Shravan (BEng(EComE), class of 2013)
  • Full Video: https://www.youtube.com/watch?v=rPYAc8xt24E&t=615s
  • Shorter Section (with Chinese captions): https://www.youtube.com/watch?v=UagD9-eq5IE

His Startup received over HK$500k from HKU Technology Startup Support Scheme (TSSSU) and admitted to the Accelerator Program of the Entrepreneurship Centre of the University of Cambridge

DreamCatchers 100K
• HKU DreamCatchers 100K Competition
  • http://www.dreamcatchers.hku.hk/?cat=41

Thank You!
www.eee.hku.hk
OBASL Syllabus

Presenter name: K.T. Chau

What is OBASL?

- Outcomes Based Approach to Student Learning (OBASL)
- An approach to programme and course design
- Focus on what students are expected to learn and do in terms of statements of Learning Outcomes

OBASL Syllabus in EEE

Each course syllabus contains:

- Course learning outcomes (CLOs)
- Programme learning outcomes (PLOs)

Course Learning Outcomes

- Different courses have different course learning outcomes (CLOs)
- They are what you are expected to learn from each course
- E.g. Master the operation principle, mathematical analysis and practical application of major electromechanical motion devices and systems

Programme Learning Outcomes

- Standardized
- What abilities that you are expected to have when you finished the course and the programme
- 12 programme learning outcomes (PLOs)
- Matched with “HKIE Abilities for Engineering Graduates”
12 PLOs

• (1) an ability to apply knowledge of mathematics, science, and engineering appropriate to the degree discipline
• (2) an ability to design and conduct experiments, as well as to analyse and interpret data
• (3) an ability to design a system, component or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability

12 PLOs

• (4) an ability to function on multi-disciplinary teams
• (5) an ability to identify, formulate and solve engineering problems
• (6) an ability to understand professional and ethical responsibility
• (7) an ability to communicate effectively
• (8) an ability to understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety and environmental considerations to both workers and the general public

12 PLOs

• (9) an ability to stay abreast of contemporary issues
• (10) an ability to recognize the need for, and to engage in life-long learning
• (11) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice appropriate to the degree discipline
• (12) an ability to use the computer/IT tools relevant to the discipline along with an understanding of their processes and limitations

Where You can Find OBASL Syllabus?

Each course OBASL syllabus can be found in the “Course Information” in HKU Portal
Plagiarism

Policy
Penalty Guidelines
How to Avoid Plagiarism

Policy

- Plagiarism is defined as the unacknowledged use, as one’s own, of work of another person, whether or not such work has been published. Acts of plagiarism include copying parts of a document in whatever media, using or extracting another person’s concepts, experimental results or conclusions.
- Students who willingly provide the source for copying encourage plagiarism and will be penalized in the same light.
- The University views plagiarism as a serious academic misconduct: leading to the imposition of heavy penalties, including expulsion from the University.

Penalty Guidelines Inside Dept

- If a student is found engaged in plagiarism for the first time, then his particular work in question (such as an experiment report, assignment, exercise or examination/test) will be awarded a mark of zero percent.
- Where the case of repeated plagiarism is substantiated, the student’s name will be forwarded to the University Disciplinary Committee via the Department Head, in addition to the penalty as stated above.

Possible Penalty Outside Dept

- If a student is found engaged in plagiarism even for the first time, his particular work in question will be awarded a mark of zero percent, and his name will be forwarded to the University Disciplinary Committee in addition to the penalty as stated above.

How to Avoid Plagiarism

- Re-write in your own words and acknowledge your sources of information
- Clearly indicate what is copied (using separate paragraphs or quotation marks), and where it is copied (acknowledging your sources)

Source of information:
David Gardner, Plagiarism and How To Avoid It. Centre for English Studies, The University of Hong Kong. [http://www4.caes.hku.hk/plagiarism/]

Latest Development

- Some teachers have used the Turnitin (http://www.turnitin.com/) which is a worldwide recognized plagiarism detection software to online identify plagiarism cases.
- Some teachers have used dedicated software to identify plagiarized programming works.
- Our teaching assistants and demonstrators have paid attention to identify plagiarized lab reports and assignments.
Some Cases

- Some students were found engaged in plagiarism in only 1 lab report; they all got zero marks in that lab report, leading to fail the PW component and also the whole course.
- A student engaged in plagiarism two times, and the Disciplinary Committee suspended his/her studies for 6 months.
- A student was found engaged in plagiarism in the other department course for the first time, he/she was forwarded to the University Disciplinary Committee.

Recent Cases in EEE

- Some students were found engaged in plagiarism in course assignments.
- Some students were found engaged in plagiarism in lab reports.
- Some students were found engaged with different levels of similarity in Senior design project reports.
- Some students were found engaged in plagiarism in MSc course assignments.
- Some students were found engaged with different levels of similarity in MSc dissertations.
Examination Matters
Department of Electrical and Electronic Engineering
Hong Kong University

ASSESSMENT

To pass a course, a student must pass both PW and EA components separately.
Note not all courses have all the three components.
Students will be informed by the Faculty/Department of the relative percentage assigned to the different components early in the academic year.

GRADES & GRADE POINTS

COURSE MARKS (0...100%)
GRADING (F, D ..., A+)
GRADING POINTS (0.3 ... 4.3)
Except Workshop training & Industrial Training (P or F only and not accounted in GPA calculation)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Mark</th>
<th>Credit</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail</td>
<td>F</td>
<td></td>
<td>0.0</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>A+</td>
<td>4.3</td>
<td></td>
<td>4.3</td>
</tr>
</tbody>
</table>

GRADE POINT AVERAGES (GPA)

Grade Point Average (GPA)
Semester Grade Point Average (SGPA)
The GPA in respect of courses attempted by a candidate during a given semester.
Year Grade Point Average (YGPA)
The GPA in respect of courses attempted by a candidate during a given academic year.
Cumulative Grade Point Average (CGPA)
The GPA in respect of courses attempted by a candidate at the time of calculation.

If you fail a course
Candidates are required to make up for failed courses in the following manner:
1. Undergoing re-assessment/re-examination in the failed course to be held no later than the end of the following semester (not including the summer semester); or
2. Re-submitting failed coursework without having to repeat the same course of instruction; or
3. Repeating the failed course by undergoing instruction and satisfying the assessments; or
4. For elective courses, taking another course in lieu and satisfying the assessment requirements.
UNSATISFACTORY PROGRESS

- A student will be warned (through a warning letter)
  - if the number of credits passed $\leq 18$ for current semester, or
  - if the SGPA $\leq 1.5$ for current semester, or
  - one semester prior to the maximum period of registration if the student has not graduated

- A student will be recommended for discontinuation if any one of the following 3 situations occurs
  - failed to complete at least 36 credits in two consecutive semesters except where they are not required to take such a number of credits in the two given semesters,
  - failed to achieve an average of SGPA of 1.0 or higher for two consecutive semesters,
  - exceeded the maximum period of registration specified in the regulations of the degree
  *(not including the summer semester)*

Examination arrangement

- All examination dates and venues are arranged by the University examination office
- Exam timetable will not be changed because of personal reasons
- Students who are absent from examination of a course due to illness with certified medical certificates are required to attend a supplementary examination

Assessment period

- Sem 1: Dec 8 - Dec 23, 2017
- Sem 2: May 7 - May 26, 2018

BEng DEGREE CLASSIFICATION

The classification of honours shall be determined by the Board of Examiners for the degree in accordance with the Cumulative GPA (CGPA), with all courses taken (including failed courses) carrying equal weighting

- First Class Honours
- Second Class Honours, Division One
- Second Class Honours, Division Two
- Third Class Honours
- Pass

Honours classification may not be determined solely on the basis of a candidate's CGPA and the Board of Examiners has its discretion
Introduction

- To pass the course, student has to fulfill all requirements:
  - Course work
  - Examination
  - Practical work (Lab)
  - etc.
- Please be noted the marks may not be compensate for the other session
- Have to pass both Exam and Lab session ** BOTH

Lab Session

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lab code</th>
<th>Lab Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC1306</td>
<td>Electronic circuits</td>
<td>CCT01</td>
<td>Op-amp and Diode Circuits</td>
</tr>
<tr>
<td>ELEC2101</td>
<td>Power transmission and distribution</td>
<td>P4</td>
<td>Power System Interconnection</td>
</tr>
<tr>
<td>ELEC2103</td>
<td>Power electronics</td>
<td>PE1</td>
<td>Power Converters</td>
</tr>
<tr>
<td>ELEC2202</td>
<td>Communications Engineering</td>
<td>PE2</td>
<td>Amplitude Modulation</td>
</tr>
<tr>
<td>ELEC2306</td>
<td>Electronic circuits</td>
<td>EC1</td>
<td>The Common-Emitter Amplifier</td>
</tr>
<tr>
<td>ELEC2306</td>
<td>Electronic circuits</td>
<td>EC2</td>
<td>Implementation of logic circuits with BJTs</td>
</tr>
</tbody>
</table>

** not group sessions

All the lab information are on: www.eee.hku.hk/~ugsnews

Lab Session Registration

https://elink.eee.hku.hk/ug_home.html

- Login the lab sign-in page with the EEE/HKU portal account
• Lab time schedule can be downloaded as reference

• All lab sessions are offered on Wed and Sat morning
### Lab Grading

- **Lab performance (40%)**
  - Students will be assessed during the laboratory period according to their performances, attitudes, understandings of the work and experimental results.

- **Laboratory reports (60%)**
  - Students are required to submit reports for each experiment.
  - There are two types of format, i.e., formal and informal types.
  - *Informal format should be used* unless further requested.

### Submission

- Submitting Laboratory Reports via the Moodle system:
  - Lab report should be submitted by **2 weeks after the lab**.

### Lab Regulations Highlights

Ref: [http://www.eee.hku.hk/~ugsnews/lab-material/lab-guidance.htm](http://www.eee.hku.hk/~ugsnews/lab-material/lab-guidance.htm)

- No student may work on experiments unless there is at least one other person in the laboratory.

- Great care should be taken in handling meters and apparatus. A good deal of these apparatuses are of high quality, expensive and difficult to replace. You will be held responsible for any damage resulting from non-observance of the instructions.

- A student presenting himself at a laboratory class late may be subjected to a deduction of marks in that particular experiment/mini-project. Moreover, a student may not be allowed to participate in the experiment/mini-project (unless with strong reasons) if he/she is more than **30 minutes late**.

- Please be aware plagiarism is strictly prohibited and every student should finish their report by themselves. Even students with the same group should be expected to finish the report individually and identical report should not be submitted even for the same group.

### Important Date

<table>
<thead>
<tr>
<th>Proposed Date</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sign-in system open in 9:00-17:00 for Mon-Fri</strong></td>
<td>05 Sept – 13 Sept 1st – 3rd</td>
</tr>
<tr>
<td><strong>Open for 24 hours for all days</strong></td>
<td>13 Sept – 29 Sept 3rd – 5th</td>
</tr>
<tr>
<td><strong>Lab session starts</strong></td>
<td>04 Oct – 18 Nov 6th – 11th</td>
</tr>
</tbody>
</table>

**Noted:**
- The lab sign-in system is served based on the first-come-first-serve basis.
- The link of the lab sign-in system will be posted in the course Moodle.
- Submission of report by **2 weeks** after the lab is done.
Safety “Matters”

Dr. Anthony H W Choi
Safety Coordinator
Chow Yei Ching Building, Room 716
Phone: 2859-2693
Email: hwchoi@eee.hku.hk

In any event, safety comes first!
How to define safety?
- Nothing is absolutely safe!
- Risk judgment: a thing is safe if its risks are judged to be acceptable

How to assess risk?
- Risk = probability of occurrence × consequence of occurrence
Always assess the risk when doing something new!
- For example, without the supervision of a qualified and trustworthy personnel (e.g., a technician or a lab supervisor), the risk of performing any potentially hazardous action is HIGH.

Safety “Matters”

Electrical Safety

Hazards
- Electrical shock
- Ignition of combustible materials
- Overheating and damage to equipment
- Electrical explosion

Causes
- Damaged insulation
- Inadequate systems of work
- Inadequate over-current protection (e.g., fuse, CB)
- Inadequate grounding
- Carelessness
- Loose contacts and unprotected connectors

Laser Safety

Classes 1, 1M, 2, 2M, and 3R
- e.g. Laser printer, laser pointer, barcode scanners

Class 3 laser products
- Direct intrabeam viewing may be hazardous but under certain conditions they may be safely viewed via a diffuse reflector
- Visible output power of continuous wave < 0.5W
- Examples: lasers for physiotherapy treatments

Class 4 laser products
- High power output devices > 0.5W
- Capable of producing hazardous reflections
- May cause eye and skin injuries
- Requires extreme caution in using
- Examples: laser projection displays, laser surgery devices and laser metal cutting devices

Warning labels
Chemical Safety
Classification of dangerous substances
- Explosive
- Flammable
- Toxic
- Corrosive
- Oxidizing

Michael C.W. Chan, chemistry superintendent, EEE
2859-2694, mchan@mch.k.hk

Fire Safety
Fire hazards
- Smoking materials
- Use of electrical equipment
- Use of flammable liquids
- Poor housekeeping

Always report fire hazards!
When hearing fire alarm, always leave building promptly as instructed!

Fire Assembly Point
Chow Yei Ching Building
Pavement Near Hillsides of Jockey Club Tower
賽馬會教學樓對出山邊行人路

Fire Assembly Point
Composite Building
Haking Wong Building (3/F to LG/F)
Yam Pak Building

First-Aid Certificate Holders:

<table>
<thead>
<tr>
<th>Name</th>
<th>Office</th>
<th>Phone</th>
<th>Other Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Thomas T.O. Kwan</td>
<td>CB-LG301A</td>
<td>2859-2694</td>
<td><a href="mailto:mchan@eee.hk">mchan@eee.hk</a></td>
</tr>
<tr>
<td>Mr. Michael, C.W. Chan</td>
<td>CB-LG301</td>
<td>2859-2694</td>
<td></td>
</tr>
</tbody>
</table>

Fire Wardens:

<table>
<thead>
<tr>
<th>Floor</th>
<th>Name</th>
<th>Office</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG3</td>
<td>Mr. Michael, C.W. Chan</td>
<td>LG301</td>
<td>2859-2694</td>
</tr>
<tr>
<td>LG2</td>
<td>Mr. Wong Siu Jhong</td>
<td>LG205</td>
<td>2858-2689, 2858-2694</td>
</tr>
<tr>
<td>1/F</td>
<td>Dr. Gary C.C. Law</td>
<td>102</td>
<td>2859-2729, 2857-8413</td>
</tr>
<tr>
<td>1/F</td>
<td>Mr. Andy W.K. Fok</td>
<td>103</td>
<td>2858-2689</td>
</tr>
<tr>
<td>2/F</td>
<td>Mr. C.I. Lo Wing</td>
<td>LG301</td>
<td>2858-2694</td>
</tr>
<tr>
<td>2/F</td>
<td>Dr. Thomas T.O. Kwan</td>
<td>126</td>
<td>2858-2694, 2858-2699, 2859-2506, 2858-2689</td>
</tr>
<tr>
<td>5/F</td>
<td>Dr. Peter P.T. Lai</td>
<td>205</td>
<td>2859-2689, 2859-2694</td>
</tr>
<tr>
<td>6/F</td>
<td>Mr. Roy C.W. Lam</td>
<td>610</td>
<td>2858-2695</td>
</tr>
<tr>
<td>6/F</td>
<td>Miss Lily L.Y. Lo</td>
<td>601</td>
<td>2857-7093</td>
</tr>
<tr>
<td>7/F</td>
<td>Mr. Eric W.L. Ng</td>
<td>702</td>
<td>2859-2695, 2858-2792</td>
</tr>
<tr>
<td>7/F</td>
<td>Miss Lily L.Y. Lo</td>
<td>601</td>
<td>2857-7093</td>
</tr>
<tr>
<td>8/F</td>
<td>Mr. Ben T.K.C. Leung</td>
<td>802</td>
<td>2859-2712</td>
</tr>
<tr>
<td>8/F</td>
<td>Mr. Jackie C.W. Cheung</td>
<td>804</td>
<td>2859-2695</td>
</tr>
<tr>
<td>4/F</td>
<td>Mr. Jack S.C. Ma</td>
<td>404</td>
<td>2858-2695, 2858-2694</td>
</tr>
<tr>
<td>4/F</td>
<td>Mr. Raymond S.C. Ho</td>
<td>304</td>
<td>2858-2697</td>
</tr>
</tbody>
</table>

Want to learn/know more?
• Browse the departmental safety homepage:
  - go to HKU/EEE homepage
  - click "Safety and Emergency"

• Home page of Hong Kong Occupational Safety and Health Association
• University Safety Office
• Labour Department

Details about safety: http://www.eee.hk/hsa/InternalInformation/index.html
In Important Notice, click HKU/EEE Safety Notes.
Any Uncertainty, please contact us

Anthony H W Choi  
Safety Coordinator  
chchoy@eee.hku.hk  
Phone: 2859-2693  
(CB Room 716)

Thomas Kwan  
Technical Manager,  
First aid support  
tokwan@eee.hku.hk  
Phone: 2859-2694  
(CB Room LG301)

Michael C.W. Chan  
Support for handling  
Chemical materials  
mchance@eee.hku.hk  
Phone: 2859-2694  
CYC Room LG301