

## IQY Master Diploma in Engineering Study Program

(240 credits including 120 Credits for Professional Diploma/ BE degree/ City & Guild Level 6 Diploma)

(St Clements University -Master of Applied Engineering)

### PART (A) IQY Master Diploma in Engineering Part 1- 80 credits

(St Clements University's Graduate Diploma in Applied Engineering)

(STC Technological University Graduate Diploma in Engineering)

<http://www.highlightcomputer.com/GraduateDiplomaEngineeringPractice.htm>

### **BAE 701 Engineering Fundamental** 10 Credits

The candidates need to download the textbooks from given link

For every topic, you need to write the short note on what you understand, formula, summary, outlines and at least 2 problems solution (Please note, each problem is solved in short form, you need to clearly reproduce them by step by step)

After having done all above tasks, BAE 701 Engineering Fundamental will be completed.

### **BAE 702 Engineering Management** 10 Credits

See the given site

View the videos, download the lessons, study and then do the exercises.

### **BAE 703 Leadership & Human Resources Management** 10 Credits

See the given site

View the videos, download the lessons, study and then do the exercises,

### **BAE 704 Risk Management & Industrial Safety** 10 Credits

See the given site

View the videos, download the lessons, study and then do the exercises,

### **BAE 705 Engineering Competency Development** 10 Credits

See the given site

View the videos, download the lessons, study and then do the exercises,

## Assignment

During your study

- List the subjects that you have learnt in your study at college/ university
- List the subjects that you have achieved the good mark and explain why and how you got it
- List the subjects that you just marginally passed and explain why it happened
- List the practical tasks that you have done at college/ university
- List any reference books, tuition classes, practical books that you have read at college/ university

After Graduation

- If you are working, provide your CV that shows the detailed of your employment
- If you have not worked, list any training, engineering books , online websites, online videos etc that you study

Your future plan

- Provide an outline what you want to be, what training you will attend, what practical tasks you will do. If you have already attended the trainings and courses, provide the certificates

BAE705 will be completed when you have done the above tasks

## BAE 706 Engineering Report Writing 10 Credits

Study the given report format.

You need to read one news paper article or web information or if you can , visit a practical work site and then write a report by following steps

- Title
- Brief description of topics
- Contents
- Detailed information
- Reference data, photos, tables, diagrams to be inserted
- Conclusion
- Reference list

BAE706 will be completed when you have done the above tasks

## BAE 707 Engineering Ethics 10 Credits

## Society of Professional Engineers-UK

<http://www.professionalengineers-uk.org/index.php/the-society/code-of-professional-conduct>

## Code of Professional Conduct

All individuals registered as Professional Engineers and those aspiring to become registered Professional Engineers shall deliver services in accordance with the Society's Code of Professional Conduct and shall:

### 1. Competence

a) only undertake professional tasks for which they are competent and will at all times exercise all reasonable professional skill and care to prevent avoidable danger to health or safety and the creation of adverse impacts on the environment.

b) maintain and broaden their knowledge, experience and competence and encourage others to do so.

### 2. Integrity

a) treat all persons fairly with respect and without bias

b) avoid where possible real or perceived conflict of interest and advise affected parties should such conflicts arise.

c) observe the proper duties of confidentiality owed to appropriate parties.

d) discharge their professional duties with integrity, impartiality and objectivity and have no involvement with any form of bribery.

### 3. Responsibility

a) accept appropriate responsibility for work carried out under their supervision.

b) assess relevant risks and liability and, if appropriate, have in force appropriate liability insurances.

c) notify the Society within 28 days:

- if convicted of a criminal offence other than parking fines or convictions for exceeding the speed limit:
- upon becoming bankrupt or disqualified as a Company Director:
- if they are removed from the membership of another professional body as the result of a matter relating to conduct.

d) notify the Society of any significant violation of the Code of Conduct by any Professional Engineer on the register or any aspiring member seeking to gain access to the register.

#### **4. Information**

a) co-operate with the Society and provide such information as may be requested to facilitate any investigation into the conduct of any Professional Engineer on the register or any aspiring member seeking to gain access to the register.

#### **5. Relationships**

a) have due regard to their duty of care to clients and not take advantage of any client or potential client for whatever cause or reason in obtaining and carrying out instructions.

b) put all terms of engagement in writing and state the fees to be charged; whenever practicable, these should be issued to the client before a project is begun.

c) inform his/her client immediately if it appears that his/her estimate as to the total fees to be charged is likely to be or will be exceeded.

d) take care not to mislead a client as to the range of services that a quoted fee is intended to cover and the amount of future fees which may be involved.

Note in respect of relationships: Any Professional Engineer on the register or any aspiring member seeking to gain access to the register shall not:

- accept a professional assignment if he/she is aware or has reasonable cause to suspect that another member is acting for the client in respect of the same assignment, until either the first contract has been determined by the client, or the other member has consented to him acting.
- induce a client to agree to pay sums of money which are not justified by reference to the work which the member has carried out or has been instructed to carry out.
- offer or give any fee, commission, discount or other inducement (financial or otherwise) to a third party in return for the introduction of clients or particular professional assignments unless, before entering into a legally binding agreement with that client he/she makes full disclosure to the relevant client of the nature or amount of such fee, commission, discount or inducement and the name of the person or persons to whom such fee, commission, discount or inducement was offered or given.

## **6. Practice**

a) Ensure that in respect of any firm in which he/she is or is held out to be a sole proprietor, partner or a director or through which he/she practises or conducts business:

- the composition (list of partners or directors) is clearly stated on all appropriate documentation and that where there has been a material alteration to the composition, all clients of the firm or company are notified of the change promptly;
- the style or title does not adversely reflect upon his/her professional status as a Professional Engineer and the dignity and reputation of the engineering profession;
- the name is not misleading or liable to cause confusion with the public, nor does it imply any partnership arrangement with or endorsement of services by the Society.

b) Titles associated with the registration of Professional Engineers such as "PEng" and "PEng(UK)" and membership of the Society such as "Fellow of the Society of Professional Engineers", "Member of the Society of Professional Engineers", and all others relating to membership of the Society of Professional Engineers, and the designations FSPE, MSPE, Hon.FSPE, Hon.MSPE shall only be used or authorised to be used in connection with a partnership or company

- in the name of any partnership in which such member practises provided all the member's partners are similarly entitled to use the Title and designatory letters
- to describe the name of any company provided only that all the shareholders and/or members of such company and all the directors of such company are similarly entitled to use the Title.
- to describe the name of a firm or business which is not a partnership or company in which he/she practises provided such use of the Title does not give the impression that any other person or persons with whom such member is carrying on business or whom such member employs or with whom such member is associated in any way is entitled to use the same Relevant Title or, if the impression referred to is given, such other person or persons is or are similarly entitled to use the Title.

## **7. Managerial responsibility**

a) In addition to the responsibilities referred to in the Rules of Professional Conduct, but subject to the following, any Professional Engineer on the register or any aspiring member seeking to gain access to the register shall be prima facie

responsible, as a matter of professional conduct, for the acts or omissions including, in particular, breach of any of the provisions of the Articles and Bye-Laws of the Society or these Rules of Professional Conduct of:

- any firm in which the member is, or holds him/herself out to be, or allows him/herself to be held out as a partner, or any firm which the member allows to use his/her name and/or style and title or designatory letters in any of its advertisements, publicity material or notepaper; and
- any company of which he/she is a director or any co-director of that company or any company which the member allows to use his/her name and/or style and title or designatory letters in any of its advertisements, publicity material or notepaper.

b) If any Professional Engineer on the register or any aspiring member seeking to gain access to the register is able to show that, without default on his/her part, he/she was not aware, and there was no reason for him to be aware at the time of any breach of these provisions by any firm or company referred to above and he/she had, prior to the breach, taken all reasonable steps to ensure that such a breach would not occur, then he/she shall not be in breach of this Rule.

## **8 Publicity and Advertising**

a) Any Professional Engineer on the register or any aspiring member seeking to gain access to the register may publicise his/her services or permit another person to do so, but in doing so the member must have due regard to the standards set by the Advertising Standards Authority and any standards set by any other regulatory or governmental authority in relation to advertising and ensure that any publicity for which he/she is in any way responsible is neither inaccurate nor misleading.

b) In all advertising, publicity material or public statements for which any Professional Engineer on the register or any aspiring member seeking to gain access to the register is in any way responsible, he/she shall avoid all claims of superiority over, or critical comparisons of, the services provided by other engineers and shall avoid any direct comparison of fees and charges levied by other engineers.

c) Any Professional Engineer on the register or any aspiring member seeking to gain access to the register may only refer to the name of a client in any advertising, publicity material or public statement if the prior written consent of that client is first obtained.

d) Advertisements or other publicity material issued by any Professional Engineer on the register or any aspiring member seeking to gain access to the register or

by a firm in which they are held out to be a partner or director or a company through which they practise or conducts their business may state (subject to compliance with any other relevant regulations or legal requirements) either expressly or implied that they, the firm or the company (as the case may be) offers expertise or specialist advice in relation to a particular field of engineering provided only that this is the case.

### ASSIGNMENT

From newspaper, journal, internet, online chatting groups, show one event that signify the breach of engineering ethics such as use of substandard materials, breach of safety law, breach of fair practice, attempt to monopolizing , use of law and authority for safeguarding own benefits or personal associates , depressing others and highlight how engineering ethics are breached.

## BAE 708 Engineering Knowledge 10 Credits

See the given site

From the list of the subject, select two subjects, ask me to send the e-Book. Then you have to do the followings

The students will have to write 20 pages study report for each of the subjects outlined below.

The report needs to include

- ☐ Book review- Review on each chapter of the book highlighting the key concepts, key formula, key theory & practical application concepts
- ☐ Own idea on how to apply those concepts in real practical applications.
- ☐ Examples of engineering designs that use the concepts & knowledge expressed in those books (If any)
- ☐ Your comment on each book

BAE708 will be completed when you have done the above tasks

## PART (B) IQY Master Diploma in Engineering Part 2- (40 credits)

### (St Clements University's Master of Applied Engineering)

### (STC Technological University Master of Engineering)

#### **BAE709-Design Project** (40 credits)

You need to do a supervised design. In this unit, Singapore Institute of Engineering Technologists can provide the supervised design which is a part of Professional Engineers (UK) Assessment. If you do not want to apply for part of Professional Engineers (UK), IQY Technical College itself will provide design supervision that you can later use it to apply for Professional Engineers (UK)

See the given links for required engineering handbooks

You can ask the teacher to send you the e-Books if you want to use it for your selected design

### IQY Master Diploma in Applied Science (Information Technology)

(240 credits including 120 Credits for Professional Diploma/ BE degree/ City & Guild Level 6 Diploma)

### Master of Applied Science (Information Technology)

#### (St Clements University)

(240 credits including 120 Credits for Professional Diploma/ BE degree/ City & Guild Level 6 Diploma)

Follow the instructions in

<http://www.highlightcomputer.com/MAppSCIT.pdf>

The candidates will need to request the e-book for study

### IQY Master Diploma in Renewable Energy Engineering

### Master of Applied Engineering (St Clements University)

### Master of Engineering (Renewable Energy)( STC Technological University)

(240 credits including 120 Credits for Professional Diploma/ BE degree/ City & Guild Level 6 Diploma)

Follow the instructions in

<http://www.highlightcomputer.com/MScRE.pdf>

The candidates will need to request the e-book for study



## ADDITIONAL COURSE

### Doctoral Research Studies

### IQY Master Diploma in Research Studies

[http://www.highlightcomputer.com/Master\\_of\\_Engineering.pdf](http://www.highlightcomputer.com/Master_of_Engineering.pdf)

Only St Clements University will confer the Doctoral Degree while IQY Technical College will provide the joint supervision.

#### Dissertation for Doctorate

MAE 601 Research Method

MAE602 Thesis

[http://www.filefactory.com/file/111r1k0ftawt/n/11.Research+Thesis\\_\(ICT\\_605\).zip](http://www.filefactory.com/file/111r1k0ftawt/n/11.Research+Thesis_(ICT_605).zip)

#### MAE601 Research Method

This course guides the student, step by step, through the research process, from problem selection through writing up results. It provides all of the basics necessary to complete a research project in any discipline.

Outline. The following aspects are reflected in this course:

What is research?

Tools of research

The problem: the heart of the research process

Review of the related literature

Planning your research design

Writing the research proposal

Qualitative research

Historical research

Descriptive research

Experimental and causal - comparative designs

Statistical techniques for analyzing quantitative data

Technical details: style, format, and organization of the research report

#### Doctoral Research Proposal

Synopsis: Research students are expected to present a written research proposal within three months after commencement. The proposal is handed in to the study leader.

Assessors of this proposal are selected by the faculty for their understanding of the field and the research involved. The purpose of a research is to set out a plan for conducting the research and writing the dissertation within the available time. It should take account of the availability and guidance of the study leader.

The starting point for a research proposal is the topic, which is the field of interest in which the research is to be carried out. In introducing the topic, the proposal should clarify the field that it falls into and the specific part that field which the research will explore.

It should clarify why the topic is of interest and importance, and how the proposed research

will contribute to the field of knowledge or profession. The proposal should clarify the research questions, ensuring that these are specific and answerable.

It is important to show how these questions relate to the topic area, and how they will advance the student's contribution. The proposal should detail the research to be carried out, and clarify the research methods, the timeframe and the reasons for selecting particular methods.

Where a period of literature review or research should precede any empirical research, this should be factored in as part of the research. It is important to estimate any periods of field research and to flag their duration and cost in your research proposal.

### MAE 602 Thesis

#### Thesis Dissertation for Doctorate

Candidates need to complete a 60000-words dissertation (in Myanmar or English) and a 3000-words executive portfolio (in English).

This program requires the candidates to complete a thesis as part of the assessment for the Doctorate

Doing a thesis / dissertation means that instead of knowledge and information being presented and following a prescribed route for answering questions, candidates are thrust into an active role of managing an investigation into a topic area. This means researching and discovering things for themselves.

They will have to set their own targets and parameters, pose their own central research questions and decide on the appropriate sources of information to support the research. It therefore requires the use of the higher-level cognitive skills of analysis, synthesis and evaluation. Candidates may choose an area of particular interest to them within the scope of course title.

### Doctoral dissertation

A dissertation is an individual effort and the candidate, academic tutor and the course professor will work together on constructing an approved topic (research question) and methodologies.

### Dissertation Defence for doctorate

It is expected of Doctoral candidates to defend their thesis by means of a colloquium (academic discussion). The purpose of the meeting is for the candidates to convince a panel of experts in the field of the dissertation how well they have done in the conducting of their research study and the preparation of their dissertation

Candidates need to complete all course assessments with the results of Grade B+ or above.

### **Weblink**

[www.highlightcomputer.com/iqymasterdiploma2.pdf](http://www.highlightcomputer.com/iqymasterdiploma2.pdf)