

Faculty of Engineering, UM  
**KXGX 6101: Research Methodology (Research Mode – PhD & MEngSc)**

**Tentative Course Schedule\***

Session 2016-2017, Semester 2

Date	Time	Lecture / Discussion	Class room activities/Submission/Presentation	Instructor	Venue
04 March 2017 (Saturday)	10:00-12:00 hr	<b>University regulations and ethical issues (2h)</b> University rules and regulation pertaining to postgraduate studies. Intellectual honesty, transparency in conflicts of interest, redundant publication, authorship disputes, duplicate publication, human welfare concerns, data fabrication/falsification, plagiarism, and conflicts of interest.	–	Prof. Dr. Sulaiman Wadi Harun, Deputy Dean (PG)	DK3, Block U
	12:00-13:00 hr	<b>Introduction to research(1h)</b> Research: definition, type, methodology, and outcome. History and philosophy of scientific research. Scientific research method.	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
11 March 2017 (Saturday)	10:00-11:00 hr	<b>Attributes and skills of a researcher (1h)</b>	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-12:00 hr	–	- Group discussion on traits of a successful graduate researcher and your motivation - Formation of peer groups	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	12:00-13:00 hr	<b>Review of basic writing skills, and writing in English (1h)</b>		Prof. Dr. A. S. M. A. Haseeb	
18 March 2017 (Saturday)	10:00-11:00 hr	<b>Research proposal writing (1h)</b> Main purposes, contents, length, format. Funding application and research proposal. IPS format for proposal. IPPP proposal format.	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-13:00 hr	–	<b>Class Work:</b> Critically analyze research proposal of one of your colleagues, make comments on proposal and prepare a report	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
25 March 2017 (Saturday)	10:00-11:00 hr	<b>Conducting graduate research – I (2h)</b> Major steps: Identifying a research topic and develop research questions, proposal writing, literature study, carrying out research, experimental design, thesis writing, seminar/defense. To be your own critic, planning and monitoring, time management, staying motivated, good research habits, networking, managing supervisor, research ethics and best research practice.	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-12:00 hr	–	<b>Class Work:</b> Group discussion on research proposal	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	12:00-13:00 hr	<b>Conducting graduate research – I continues</b>	–	Prof. Dr. A. S. M. A. Haseeb	
22 April 2017 (Saturday)	10:00-12:00 hr	<b>Conducting graduate research– II (2h)</b> Major steps: Identifying a research topic and develop research questions, proposal writing, literature study, carrying out research, experimental design, thesis writing, seminar/defense. To be your own critic, planning and monitoring, time management, staying motivated, good research habits, networking, managing supervisor, research ethics and best research practice.	<b>SUBMISSION 1:</b> a) Proposal with corrections on it, b) Individual report on research proposal, c) Assessment rubric, d) Group report	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	12:00-13:00 hr	–	<b>Class Work:</b> Group discussion on graduate research	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
29 April 2017 (Saturday)	10:00-11:00 hr	<b>Thesis writing (2 h)</b> Contents of a thesis, IPS format, revision, language, examiners' expectation. Practical tips on how to develop a draft efficiently.	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
		–	<b>Class Work:</b> Critically analyze a thesis related to your research topic	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	12:00-13:00 hr	<b>Thesis writing continues</b>		Prof. Dr. A. S. M. A. Haseeb	

**\*Subject to changes if unavoidable circumstances arise**

Date	Time	Lecture / Discussion	Class room activities/Submission/Presentation	Instructor	Venue
06 May 2017 (Saturday)	10:00-11:00 hr	–	<b>Class Work:</b> Continue to work on the critical analysis of a thesis related to your topic	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-13:00 hr	<b>Paper writing – I (2 h)</b> Essentials of research papers, the IMRaD format: Title, Abstract, Introduction, Methodology, Results, Discussion, Conclusions, Acknowledgements, References, Submission to a journal, Dealing with reviewers, Ethical issues. etc.	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
13 May 2017 (Saturday)	10:00-11:00 hr	<b>Paper writing – II (2 h)</b> Essentials of research papers, the IMRaD format: Title, Abstract, Introduction, Methodology, Results, Discussion, Conclusions, Acknowledgements, References, Submission to a journal, Dealing with reviewers, Ethical issues. etc.	<b>SUBMISSION 2:</b> Report on critical analysis of a thesis closely related to your research	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-12:00 hr	–	<b>Class Work:</b> Critically analyze a 'poor' and a 'very good' paper in area closely related to your research	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	12:00-13:00 hr	<b>Paper writing – II continues</b>	–	Prof. Dr. A. S. M. A. Haseeb	
20 May 2017 (Saturday)	10:00-11:00 hr	Web of Science (WoS), ISI, impact factor, journal category, h-Index etc.	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-12:00 hr	<b>Oral communication (1 h)</b> Preparation, analyzing of audience, structure, rehearsal, slide preparation, delivery, effective communication through eye contact, gesture, voice etc. Avoiding nervousness, question and answer	–	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	12:00-13:00 hr	.-	<b>SUBMISSION 3:</b> Report on critical analysis of research papers <b>Class Work:</b> Group discussion on the characteristics of a good and a poor paper	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
27 May 2017 (Saturday)	10:00-11:00 hr	<b>Attending conferences (1 h)</b> Selection of conference. Things to do before, during, and after the conference. Networking. Maximizing benefit from conference. Poster presentation.		Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
	11:00-13:00	–	Experience sharing session among students	Prof. Dr. A. S. M. A. Haseeb	DK3, Block U
10 June 2017 (Saturday)	10:00-11:00 hr	Discussion on literature review, thesis writing, paper writing etc.	Experience sharing session	To be announced	DK3, Block U
	11:00-13:00 hr	<b>Paper writing – II (2 h)</b> More on paper writing	Experience sharing session	To be announced	DK3, Block U
17 June 2017 (Saturday)	10:00-13:00 hr	–	<b>Final presentation:</b> Oral presentation of your research proposal <b>SUBMISSION 4:</b> Your Updated Research Proposal <b>SUBMISSION 5:</b> Literature Review following IPS format	To be appointed by Faculty	To be announced
24 June 2017 (Saturday)	10:00-13:00 hr 14:00-17:00 hr	–	<b>Final presentation:</b> Oral presentation of your research proposal <b>SUBMISSION 4:</b> Your Updated Research Proposal <b>SUBMISSION 5:</b> Literature Review following IPS format	To be appointed by Faculty	To be announced
Schedule to be announced by the Faculty		<b>Training on essential softwares:</b> Turnitin, Endnotes etc. (3 h)		To be appointed by Faculty	To be announced

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### Documents to be collected IMMEDIATELY

For this course, the following must be collected by each student immediately:

- 1) Your original research proposal
- 2) A copy of a good post graduate thesis relevant to your research area. It must be
  - a *PhD thesis for a PhD student*
  - a *master or PhD thesis for a master student*
- 3) A copy of a “poor” and a “very good” paper relevant to your research topic.
  - *No review paper will be accepted.*
  - *The “very good” paper must have been published in a top ranking journal in your field.*
  - *The “poor” paper might have been published in any journal / conference proceeding.*

### Class work

- **Prepare yourself mentally to work seriously in the class and to take active part in discussions.**
- Bring enough papers and stationary to work in the class and prepare assignment (A4 size papers, pen/pencil, stapler etc. as necessary).
- Class attendance will be taken in every session. Make sure that you sign on the attendance sheets. Otherwise your status will be recorded as absent.

### Assignments

- Assignment submission: The first page must contain information including the following:
  - course code and title
  - title of the assignment
  - student name
  - student number
  - date of submission
- Punctuality: every student **must observe punctuality** in attending the classes and in assignment submission.
- Hardcopy of all assignments must be submitted on the due date. Late submission will not be accepted. Do not send a soft copy of any assignment.
- Each student must sign the assignment submission sheet **only** if he/she actually submitted the assignment.
- **Plagiarism: A sin !**

### Evaluation Method

- Assessment will be based on: Attendance, participation in discussions, submission of assignments, presentation etc.
- Criteria for passing this course:
  - 1) *Attendance* ≥ 80%  
*AND*
  - 2) *Submission of all assignments and get a pass mark in all (Pass mark for each submission is 60%)*  
*AND*
  - 3) *Final presentation of the research proposal and get a pass mark (Pass mark for presentation is 60%)*