1. General Information

1.1 <u>Programme Titles</u>

Master of Philosophy in ME with Mechanical Engineering Doctor of Philosophy in ME with Mechanical Engineering

1.2 Offering Department

Department of Mechanical Engineering

1.3 Final Awards

Doctor of Philosophy (PhD) Master of Philosophy (MPhil)

1.4 <u>Normal Period of Study</u>

PhD Programme

Full-time: 36 months (or 48 months for students admitted with a Bachelor's degree) Part-time: 72 months (or 96 months for students admitted with a Bachelor's degree)

MPhil Programme Full-time: 24 months Part-time: 48 months

2. Programme Structure: coursework credit and thesis requirements

Mode and level Full-time and Part-time MPhil students	Number of credits required to complete before thesis submission 9 credits	v
Full-time PhD student with three-year normal study period Part-time PhD students with six-year normal study period	15 credits	No more than 6
Full-time PhD students with four-year normal study period Part-time PhD students with eight-year normal study period	22 credits	No more than 10

3. University Overarching Aims of Research Degree Programmes

The research degree programmes are designed in such a way to enable the student to:

- 3.1 acquire competence in research methods and scholarship; and
- 3.2 display sustained independent effort and independent original thought.

The PhD programmes also target to produce academics or industrial R & D professionals.

4. Learning outcomes for MPhil programme in Department of Mechanical Engineering

- 4.1 To develop the understanding of the basic methodologies applied in scientific research of ME disciplines;
- 4.2 To develop the ability to design and conduct scientific research, as well as analyze and interpret data;
- 4.3 To develop the ability to apply knowledge of mathematics, science and engineering to the ME disciplines; and
- 4.4 To develop the ability to disseminate the research outputs in a professional manner.
- 4.5 To prepare students for advanced study (such as PhD) or for industry position.

5. Learning outcomes for PhD programme in Department of Mechanical Engineering

- 5.1 To develop a systematic understanding of the substantial fundamentals and state-ofart technologies in ME discipline;
- 5.2 To develop in-depth understanding and specialize one or more research ethodologies and techniques in ME discipline;
- 5.3 To develop the ability to pose, analyze and solve scientific problems in mechanical Engineering, promoting the advance of the forefront of the discipline; and
- 5.4 To develop the ability to disseminate and promote research outputs.
- 5.5 To prepare students for academic or research position in the future.

6. English-language Requirements

Applicants from a university where the language of teaching /instruction /examination is NOT entirely in English should satisfy the minimum English proficiency requirements specified by both the University and individual Faculties.

Applicants who have not obtained a degree from a recognised university in which the language of instruction is English are required to obtain:

- an overall IELTS score of at least 6.5 (with a score of writing component at 6.0 or above)
- for TOEFL, 575 or above in paper-based test (with a score of at least 4 out of 6 in the Test of Written English); or 90 or above in internet-based test (with a writing score of 23 or above)

All English language test scores are considered valid for five years after the date of the test.

7. Normal Study Pattern

Subjects Code	Subject Title	Credits	Compulsory/ Elective	Remarks
N/A	Thesis	N/A	Compulsory	
HTI6801	Ethics: Research, Professional & Personal Perspectives	1	Compulsory	
ME6001 ME6002 ME6003 ME6004	Research Seminar I Research Seminar II Research Seminar III Research Seminar IV	1 credit for each subject in this category: 2-year MPhil: 2 credits 3-year PhD: 3 credits 4-year PhD: 4 credits	Compulsory	Students are recommended to complete one credit per year (for full-time students) or per two years (for part-time students) to fulfil the above-mentioned requirement, with an overall assessment grade of Pass and Fail. However, as deemed appropriate by the Chief Supervisor, they are allowed to complete at most two credits per year (for full-time students) or per two years (for part-time students to fulfil the research seminar credit requirement.
ME6005	Practicum	2 (for PhD student only)	Compulsory	Students are allowed to complete these two credits any time before thesis submission. They can choose to complete these two credits in two different semesters or within the same semester, subject to the approval of the Chief Supervisor. Stipend recipients are allowed to fulfill part of their departmental training requirement through the completion of these compulsory training credits. For students who are required to undertake teaching supporting activities, they should be required to complete the

Subjects Code	Subject Title	Credits	Compulsory/ Elective	Remarks		
				training programmes orgainsed by the EDC and ELC before the commencement of any teaching supporting activities.		
ME6601 or ME6602	Advanced Engineering Mathematics or Computer Simulation Methods in Science and Engineering	3 credits	Compulsory			
ME6401 or ME6101 or ME6301	Combustion Science or Advanced Theory and Methods in Vibration Analysis or Properties, Applications and Modeling of Advanced Materials	3 credits			Compulsory	
	Free elective subjects offered to research degree students within or outside PolyU at level 6 or above, subject to the approval of the chief supervisor	2-year FT MPhi free elective 3-year FT PhD attain at least 3 order to fulf requirements for 4-year FT PhD attain at least 9 order to fulf requirement.	Elective			

8. Relationship between the Programme Outcomes and Subjects

Programme Outcomes	Thesis	Ethics: Research, Professional & Personal Perspectives	Research Seminar	Practicum	Advanced Engineering Mathematics	Computer Simulation Method in Science & Engineering	Combustion Science	Advanced Theory and Methods in Vibration Analysis	Properties, Applications and Modeling of Advanced Materials	Free elective subjects
PhD										
To develop a systematic understanding of the substantial fundamentals and state-of-art technologies in ME discipline	v		v	v	v	v	v	v	v	v
To develop in-depth understanding and specialize one or more research methodologies and techniques in ME discipline.	v		V	V	V	v	v	v	v	V
To develop the ability to pose, analyze and solve scientific problems in mechanical Engineering, promoting the advance of the forefront of the discipline	V	V	v	v	v	v	v	v	v	V
To develop the ability to disseminate and promote research outputs	v	v	v	v	v	v	v	v	v	v
To prepare students for academic or research position in the future	v	v	v	v	v	v	v	v	v	v
MPhil										
To develop the understanding of the basic methodologies applied in scientific research of ME disciplines	v		v	V	v	v	v	v	v	V
To develop the ability to design and conduct scientific research, as well as analyze and interpret data	v		v	v	v	v	v	v	v	v
To develop the ability to apply knowledge of mathematics, science and engineering to the ME disciplines	v	v	v	V	v	v	v	v	v	v
To develop the ability to disseminate the research outputs in a professional manner	v	v	v	v	v	V	v	v	v	v
To prepare students for advanced study (such as PhD) or for industry position	v	v	v	v	v	v	v	v	v	v

9. Thesis Requirements

On completion of an approved programme of study and research, students must submit a thesis and defend it in an oral examination.

MPhil and PhD theses shall consist of the student's own work of his investigations and be integrated and coherent piece of work.

Research students should complete their coursework with a stipulated qualifying GPA before they can submit thesis for examination.

10. Credit Transfer

Credits which have already been used to contribute to an award should not be "transferred" to contribute to another award with the following exception:

3-year PhD students will be allowed to apply to transfer one credit from their previous studies in HTI6081 and one credit from their previous attendance in seminars.

11. Assessment Regulations

The assessment regulations confirm the University's General Assessment Regulations for credit-based programmes. The General Assessment Regulations for credit-based programmes are available from http://www.polyu.edu.hk/%7Eas/staff/problications f.html.

- 12. This Programme Document is subject to review and changes which the programme offering Faculty/Department/School can decide to make from time to time. Students will be informed of the changes as and when appropriate.
- **13.** This Document should be read together with the "Regulations and Administrative Procedures for the Degrees of MPhil and PhD" and the "Research Student Handbook".

Subject Description Forms Subject offered by the Department of Health Technology and Informatics

Subject Description Forms

Subject offered by the Department of Mechanical Engineering

For ME subject syllabi, please refer to http://www.polyu.edu.hk/me/files/subject_syllabi.pdf for latest information.