

## POSTGRADUATE PROGRAMMES OFFERED

### (a) Programme by Coursework

#### PROGRAMMES BY COURSEWORK

UPM offers 52 programmes by coursework at 12 Faculties.

##### Faculty of Agriculture

1. Master of Land Resource Management
2. Master of Plantation Management

##### Faculty of Computer Science and Information Technology

1. Master of Computer Science
2. Master of Information Security
3. Master of Software Engineering

##### Faculty of Design and Architecture

1. Master of Architecture
2. Master of Landscape Architecture

##### Faculty of Economics and Management

1. Master of Economics
2. Master of Entrepreneurship

##### Faculty of Educational Studies

1. Master of Education (Curriculum and Instruction)
2. Master of Education (Educational Administration)
3. Master of Education (Educational Psychology)
4. Master of Education (Guidance and Counselling)
5. Master of Education (Instructional Technology and Innovation)
6. Master of Education (Physical Education)
7. Master of Education (Sport Science)
8. Master of Education (Teaching of English as a Second Language [TESL])
9. Master of Education (Teaching of Malay Language)
10. Master of Education (Technical and Vocational Education)
11. Master of Human Resource Development

##### Faculty of Modern Languages and Communication

1. Master of Applied Linguistics
2. Master of Corporate Communication
3. Master of Malay Language
4. Master of Malay Literature
5. Master of World Literature

##### Faculty of Engineering

1. Master of Communication Engineering
2. Master of Emergency Response and Planning
3. Master of Engineering Management
4. Master of Environmental Engineering
5. Master of Environmental Technology Management
6. Master of Highway and Transportation Engineering
7. Master of Innovation and Engineering Design
8. Master of Manufacturing System Engineering
9. Master of Process Safety and Loss Prevention
10. Master of Remote Sensing and GIS
11. Master of Structural Engineering and Constructions
12. Master of Water Engineering

##### Faculty of Environmental Studies

1. Master of Environment

##### Faculty of Food Science and Technology

1. Master of Food Technology
2. Master of Food Safety and Quality Assurance

##### Faculty of Medicine and Health Sciences

1. Doctor of Public Health
2. Master of Pathology
3. Master of Medicine (Family Medicine)
4. Master of Medicine (Family Paediatrics)
5. Master of Medicine (Psychiatry)
6. Master of Medicine (Radiology)
7. Master of Medicine (Internal Medicine)
8. Master of Medicine (Anaesthesiology)
9. Master of Public Health
10. Master of Surgery (Orthopaedics)

##### Faculty of Science

1. Master of Applied Statistics

##### Faculty of Veterinary Medicine

1. Master of Veterinary Medicine

**(b) Programme by Research**

**PROGRAMMES BY RESEARCH**

UPM also offers more than 289 fields of study for programme by research at 16 Faculties and 11 Institutes.

**Faculty of Agriculture**

1. Agribusiness
2. Agricultural Economics
3. Agricultural Extension
4. Agricultural Technology
5. Agronomy
6. Animal Behavior and Welfare
7. Animal Production
8. Animal Science
9. Aquaculture
10. Entomology
11. Fisheries Science
12. Genetics and Breeding
13. Horticulture
14. Land Resource Management
15. Pest Management
16. Plant Pathology
17. Plant Science
18. Soil Science

**Faculty of Agriculture & Food Sciences (UPM Bintulu, Sarawak Campus)**

1. Agribusiness
2. Agricultural Technology
3. Agronomy
4. Analytical Chemistry
5. Animal Production
6. Applied Mathematics
7. Aquaculture
8. Biodiversity and Conservation of Natural Resources
9. Bioinformatics and System Biology
10. Bioresource and Technology
11. Business Economics
12. Ecology
13. Economics
14. Entomology
15. Environmental Hydrology and Hydrogeology
16. Environmental Quality and Conservation
17. Fishery Science
18. Food Biotechnology
19. Food Science
20. Food Security and Climate Change
21. Forest Management and Ecosystem Sciences
22. Genetics and Breeding
23. Horticulture
24. Human Development
25. Land Resource Management
26. Landscape Studies
27. Marine and Freshwater Ecosystem
28. Materials Science
29. Mathematic Cryptography
30. Microbial Biotechnology

**Faculty of Human Ecology**

1. Community Development
2. Consumer Science
3. Developmental Psychology
4. Family Ecology
5. Family Economics and Management
6. Gender and Development
7. Housing Studies
8. Human Development
9. Music
10. Philosophy and Civilization Studies
11. Politics and Government
12. Psychology of Child Development
13. Social Psychology

**Faculty of Modern Languages and Communication**

1. Applied Comparative Linguistics
2. Arabic Language
3. Chinese Literature
4. Communication Technology
5. Development Communication
6. Discourse Studies
7. English Language
8. English Literature
9. Human Communication
10. Journalism
11. Literary and Cultural Studies
12. Literacy Studies
13. Malay Language
14. Malay Literature
15. Mass Communication
16. Organizational Communication
17. Persian Language
18. Translation and Interpretation

**Faculty of Medicine and Health Sciences**

1. Chemical Pathology
2. Clinical Nutrition
3. Community Nutrition
4. Environmental Health
5. Epidemiology and Biostatistics
6. Forensic Science
7. Hematology
8. Health Promotion
9. Health Service Management
10. Human Anatomy
11. Human Genetics
12. Human Physiology
13. Immunobiology
14. Immunopharmacology
15. Medical Microbiology
16. Medical Parasitology

31. Microbiology
32. Molecular Biology and Genetic Engineering
33. Molecular Biotechnology
34. Pest Management
35. Philosophy and Civilization Studies
36. Physics
37. Plant Biotechnology
38. Plant Pathology
39. Plant Physiology
40. Pure Mathematics
41. Soil Science
42. Sustainable Recreation and Ecotourism
43. Wildlife Ecology and Management

**Faculty of Biotechnology and Biomolecular Sciences**

1. Biochemistry
2. Bioinformatics and System Biology
3. Cell Biotechnology
4. Environmental Biotechnology
5. Enzyme Biotechnology
6. Industrial Biotechnology
7. Microbial Biotechnology
8. Microbiology
9. Molecular Biology and Genetic Engineering
10. Nano Biotechnology
11. Plant Biotechnology
12. Structural Biology

**Faculty of Computer Science and Information Technology**

1. Computer Networks
2. Database Systems
3. Human Computer Interaction
4. Information Systems
5. Intelligent Systems
6. Multimedia Computing
7. Parallel and Distributed Computing
8. Security in Computing
9. Software Engineering

**Faculty of Design and Architecture**

1. Architecture Studies
2. Industrial Design Studies
3. Integrated Design Studies
4. Landscape Studies
5. Urban Planning and Design

**Faculty of Economics and Management**

1. Accounting
2. Business Economics
3. Business Law
4. Corporate Leadership
5. Economics
6. Finance
7. Hospitality
8. Human Resource Management
9. Management
10. Marketing
11. Tourism

17. Medical Physics
18. Medical Sciences
19. Molecular Imaging
20. Molecular Medicine
21. Neuroscience
22. Nursing
23. Nutritional Sciences
24. Occupational Health and Safety
25. Pharmacology and Toxicology
26. Psychological Medicine
27. Public Health
28. Stem Cell

**Faculty of Veterinary Medicine**

1. Anaesthesiology and Analgesic
2. Anatomy and Histology
3. Animal Physiology
4. Animal Welfare
5. Aquatic Animal Health
6. Avian Medicine
7. Bacteriology
8. Clinical Pathology
9. Epidemiology and Public Health
10. Equine Medicine
11. Laboratory Animal Medicine
12. Nutrition
13. Parasitology
14. Pathology
15. Radiology and Imaging
16. Ruminant Medicine
17. Small Animal Medicine
18. Surgery
19. Swine Medicine
20. Theriogenology and Cryogenetics
21. Virology
22. Wildlife and Exotic Animal Health

**Faculty of Science**

1. Analytical Chemistry
2. Applied Mathematics
3. Applied Physics
4. Biodiversity and Conservation of Natural Resources
5. Catalysis
6. Ecology
7. Genetics
8. Inorganic Chemistry
9. Materials Science
10. Numerical Analysis
11. Organic Chemistry
12. Physics
13. Physical Chemistry
14. Plant Physiology
15. Pure Mathematics
16. Statistics
17. Theoretical and Computational Physics
18. Theoretical and Computational Chemistry

**Faculty of Educational Studies**

1. Curriculum and Instruction
2. Educational Administration
3. Educational Psychology
4. Educational Technology
5. Instructional Technology and Innovation
6. Extension Education
7. Guidance and Counselling
8. Human Resource Development
9. Health Education and Communication
10. Moral Education
11. Physical Education
12. Sociology of Education
13. Sport Science
14. Teaching of English as a Second Language
15. Education in Malay Language
16. Teaching of Malay Literature
17. Technical and Vocational Education

**Faculty of Engineering**

1. Aerospace Engineering
2. Agricultural Mechanization and Automation
3. Agricultural Process Engineering
4. Agricultural Waste Engineering
5. Automotive Engineering
6. Biochemical Engineering
7. Biomedical Engineering
8. Chemical Engineering
9. Computer and Embedded Systems Engineering
10. Computational Methods in Engineering
11. Control System Engineering
12. Electrical Power Engineering
13. Electrical Engineering
14. Environmental Engineering
15. Farm Structures
16. Food Engineering
17. Geotechnical and Geological Engineering
18. Geospatial Engineering
19. Geographic Information System (GIS)
20. Highway and Transportation Engineering
21. Industrial Engineering
22. Materials Engineering
23. Manufacturing Systems Engineering
24. Mechanical Engineering
25. Packaging Engineering
26. Photonics Engineering
27. Project Management
28. Remote Sensing
29. Safety, Health and Emergency Management
30. Signal Processing
31. Soil and Water Engineering
32. Structural Engineering
33. Water Resources Engineering
34. Wireless Communication and Networks Engineering

**Halal Products Research Institute**

1. Halal Products Science
2. Halal Products Development
3. Halal Products Management
4. Shariah and Halal Laws

**Institute of Advanced Technology**

1. Advanced Materials
2. Energy
3. Green Engineering
4. Nanoscience
5. Nanotechnology
6. Sensor Technology

**Institute of Agriculture and Food Policy Studies**

1. Agricultural Policy
2. Natural Resource Policy

**Institute of Bioscience**

1. Aquatic Biotechnology
2. Biotherapeutics
3. Marine Ecology and Biodiversity
4. Cancer Biology and Oncology
5. Medical Biotechnology
6. Medicinal Chemistry
7. Molecular Biotechnology
8. Metabolomics
9. Nanomedicine
10. Phytochemistry
11. Vaccine and Therapeutics

**Institute for Mathematical Research**

1. Analytical and Structural Mathematics
2. Applied and Computational Statistics
3. Computational Operations Research
4. Computational Mathematics
5. Computational Electromagnetics
6. Computable Structures and Scientific Computing
7. Ethnomathematics
8. Financial Mathematics
9. Fluid Dynamics
10. History and Philosophy of Mathematics
11. Mathematical Cryptography
12. Mathematical and Computational Biology
13. Mathematical Physics and Engineering
14. Mathematics Education

**Institute of Plantation Studies**

1. Agricultural Genomics
2. Plantation Technology
3. Sustainable Plantation Management

**Institute for Social Science Studies**

1. Community Education and Development
2. Leadership Studies
3. Rural Advancement
4. Youth Studies

<p><b>Faculty of Environmental Studies</b></p> <ol style="list-style-type: none"> <li>1. Environmental Education and Ethics</li> <li>2. Environmental Economics, Planning and Management</li> <li>3. Environmental Hydrology and Hydrogeology</li> <li>4. Environmental Policy and Governance</li> <li>5. Environmental Pollution Control Technology</li> <li>6. Environmental Quality and Conservation</li> <li>7. Environmental System and Modeling</li> <li>8. Marine and Freshwater Ecosystem</li> </ol> <p><b>Faculty of Forestry</b></p> <ol style="list-style-type: none"> <li>1. Bioresource and Technology</li> <li>2. Forest Management and Ecosystem Sciences</li> <li>3. Sustainable Recreation and Ecotourism</li> <li>4. Wildlife Ecology and Management</li> </ol> <p><b>Faculty of Food Science and Technology</b></p> <ol style="list-style-type: none"> <li>1. Food Biotechnology</li> <li>2. Food Management</li> <li>3. Food Safety</li> <li>4. Food Science</li> <li>5. Food Service</li> <li>6. Food Technology</li> </ol>	<p><b>Institute of Tropical Agriculture and Food Security</b></p> <ol style="list-style-type: none"> <li>1. Animal Biotechnology</li> <li>2. Animal Nutrition</li> <li>3. Animal Waste Management</li> <li>4. Food Security And Climate Change</li> <li>5. Post-Harvest Technology</li> <li>6. Weed Science</li> </ol> <p><b>Institute of Tropical Forestry and Forest Product</b></p> <ol style="list-style-type: none"> <li>1. Biocomposite Technology And Design</li> <li>2. Bioresource Management</li> <li>3. Biopolymer, Pulp And Paper Technology</li> <li>4. Tropical Rainforest Ecosystem Services</li> </ol> <p><b>Malaysian Research Institute on Ageing</b></p> <ol style="list-style-type: none"> <li>1. Gerontechnology</li> <li>2. Medical Gerontology</li> <li>3. Social Gerontology</li> </ol>
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**(c) UPM International Collaborative Programme**

The UPM International Collaborative programme (UPM-ICP) is a programme jointly developed by UPM with several top universities. The main objective is to promote and strengthen bilateral collaboration between UPM and its partners particularly in the areas of research and joint supervision. The programme provides an opportunity for students to study abroad and at the same time get a degree from UPM and the partner university. There are several programme modes namely Dual Degree, Jointly Awarded Degree, Double Degree and Cotutelle Degree. A total of 14 programmes are currently available, as detailed below:

University	Programme	Area of Study
The University of Sheffield	Jointly Awarded PhD	Arts and Humanities, Social Sciences, Engineering, Medicine and Health Science, Sciences, Language, Communication, Computer Science, Biotechnology and etc.
University of Newcastle, Australia	Jointly Awarded PhD	Education, Engineering, Computer Science, Information Technology, Psychology, Health and Medical Sciences, Science, Mathematics and etc.
University of Southern Queensland	Jointly Awarded PhD	Health, Psychology, Counselling, Agriculture, Environmental Sciences, Engineering, Communication, Education, Linguistics and etc.
Naresuan University	Dual Master Dual PhD	Food Science, Food Technology, Food Safety, Agriculture, Natural Resources and Environment
M. Auezov South Kazakhstan State University	Dual Master Dual PhD	Computer Science & Mathematics.
Maejo University	Dual PhD	Food Engineering, Food Science and Technology, Agriculture.
Kasetsart University	Dual Master Dual PhD	Agriculture, Forestry, Science, Veterinary Medicine, Biotechnology, Food Science, Environmental Science and etc.
University of Alberta	Dual PhD	Chemistry, Physics, Mathematics, Biological Sciences, Computing Sciences, Earth and Atmospheric Sciences, Psychology
Prince of Songkla University	Dual PhD	Biotechnology, Food Science, Food Technology, Electrical and Electronic Engineering.
University of Science and Culture	Dual Master Dual PhD	Engineering and Science.

**(d) Industrial PhD**

Industrial PhD offers an alternative route for industry practitioners who wish to pursue a doctorate degree without leaving their workplace. There is a wide range of fields of study available that students can choose from particularly in engineering, business and economics, agriculture, food technology, computer science, biotechnology, etc.