LINCOLN UNIVERSITY COLLEGE
DKU016 (B)

2022 SETARA COMPETITIVE UNIVERSITY COLLEGE

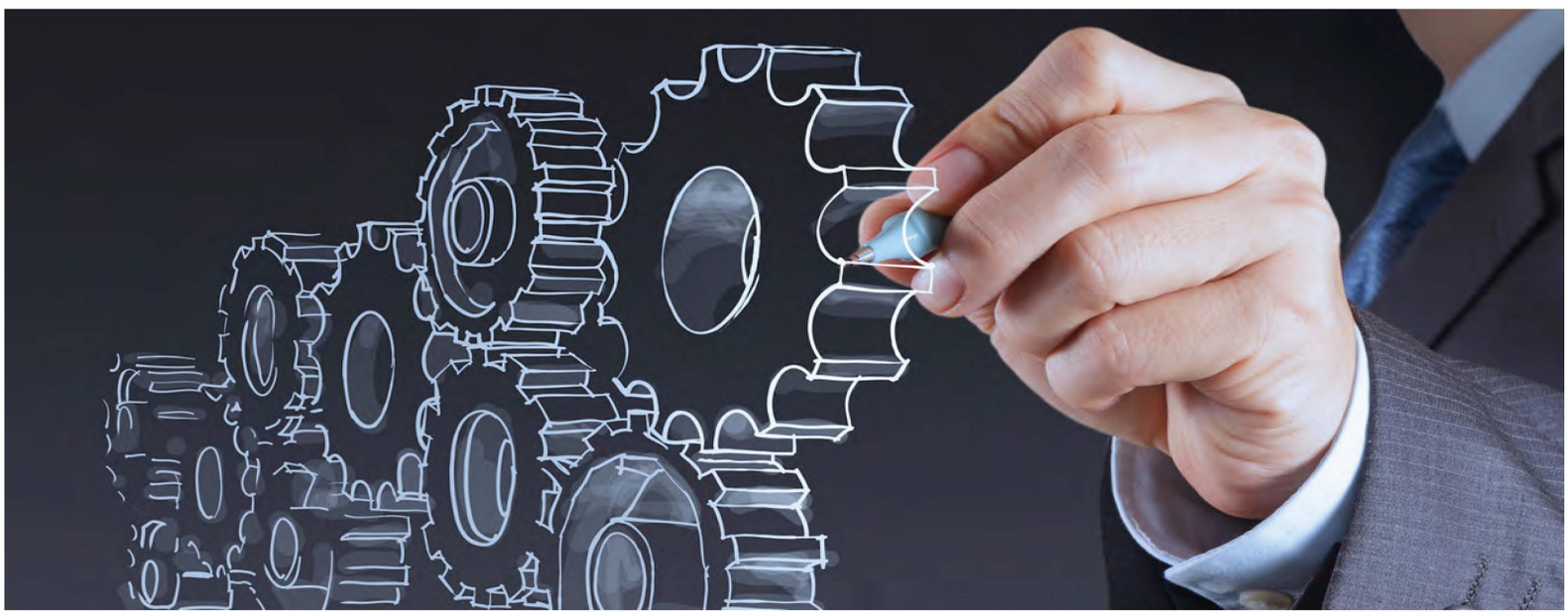
ISO 9001:2015 Certified

# Doctor of Philosophy (PhD) in Engineering (By Research)

(R/520/8/0077) (08/27) (MQA/FA 6196)

## PROGRAMME DESCRIPTION

The Doctor of Philosophy (PhD) in Engineering programme has been designed to provide students with in-depth knowledge in various fields of specialization to enable them to formulate questions and plan and carry out research in their respective subject areas. The candidates would be able to conduct a high-level research and address complex technical questions and challenge the established knowledge and practices on the respective subjects. The PhD candidates would be capable enough to evaluate the work of others as well, at the same level. The candidates will also evaluate the application of different techniques in the subject areas and shall contribute to the development of new theories, new knowledge and new methods in the respective subject area.



## PROGRAMME AIM

The Ph.D. in Engineering programme in Lincoln University College is to prepare a selected number of qualified students for careers in university-level teaching and research and for responsible positions in Government and Private Engineering industries. The primary aims of the programme are:

- To provide students with advanced knowledge in the theory and practice of areas of engineering studies with the concept of research work.
- To prepare the learners for critical problem solving, decision making on various situations and responsibilities in the course of their research work
- To create qualified managerial level Engineering professionals to provide support towards Engineering work in their specialty subjects
- To develop and prepare professionals with Research knowledge and aptitude that is useful for industrial need and in the professional engineering specialty area.
- To train student about the significance of skills and knowledge in specialties under Civil Engineering, Environmental Engineering and Management, Geotechnical Engineering, Architectural Engineering, Chemical Engineering, Petroleum Engineering, Mechanical Engineering, Computer Engineering, Metallurgical Engineering, Electrical and Electronic Engineering, Bioengineering, Biochemical Engineering, Engineering Management, Production and Industrial Engineering

**PROGRAMME DURATION** Full Time: 3 - 5 Years
Part Time: 4 - 10 Years

**INTAKE** March, July, November

Web : www.lincoln.edu.my | E-mail : info@lincoln.edu.my

1 300 880 111 (Malaysia)
+603 78063478 (International)

Kolej Universiti Lincoln, No. 12, 14, 16 & 18, Jalan SS 6/12, 47301 Petaling Jaya, Selangor

No. 2, Jalan Stadium, SS 7/15, Kelana Jaya, 47301, Petaling Jaya, Selangor Darul Ehsan, Malaysia.

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## ENTRY REQUIREMENTS

- Recognized Master's degree (Malaysian Qualifications Framework, MQF Level 7) in Engineering or its equivalent; or
- Other qualifications equivalent to a Master's degree (MQF Level 7) that are accepted by the Senate
- English language requirements for international students;
  - A minimum score in the Test of English as a Foreign Language (TOEFL)
    i) 550 in the TOEFL Paper Based Test; OR
    ii) 80 in the TOEFL Internet Based Test; OR
  - A minimum score of 5.0 in the International English Language Testing System (IELTS).

## LIST OF COURSE/MODULE OFFERED IN THE PROGRAMME

| Sl. No. | Subject Name |
|---|---|
| 1. | Research Methodology |
| 2. | Computer Application |
| 3. | **DISSERTATION ON ANY ONE OF THE FOLLOWING AREA** |

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|---|---|
| **PHDE 101** | **CIVIL ENGINEERING** |

RESEARCH WORK ON **ANY ONE** OF THE FOLLOWING TOPICS

| Sl. No. | Tentative Subject Areas |
|---|---|
| 1. | Structural Engineering |
| 2. | Off-Shore Structural Engineering |
| 3. | Highway & Transportation Design Engineering |
| 4. | Environmental Engineering and Management |
| 5. | Geotechnical Engineering |
| 6. | Water Resources Engineering |
| 7. | Urban Planning Engineering |
| 8. | Town & Country Planning Engineering |
| 9. | Hydraulic Engineering |
| 10. | Geotechnical Engineering |
| 11. | Architectural Engineering |
| 12. | Wastewater Engineering |
| 13. | Sustainable Engineering |
| 14. | Advanced Seismic Technology Engineering |
| 15. | Non-Seismic Methods Engineering |
| 16. | Advanced Engine Development Engineering |
| 17. | Construction And Project Management Engineering |
| 18. | Manufacturing System Optimization Engineering |
| 19. | System Level Integration Engineering |
| 20. | Infrastructure Systems Engineering |
| 21. | Construction Engineering Management |
| 22. | Rock Physics Engineering |

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| **PHDE 102** | **MECHANICAL ENGINEERING** |

RESEARCH WORK ON **ANY ONE** OF THE FOLLOWING TOPICS

| Sl. No. | Tentative Subject Areas |
|---|---|
| 1. | Deep Reservoir (High Pressure High Temperature) Engineering |
| 2. | Cementing Technology Engineering |
| 3. | Flow Assurance Engineering |
| 4. | Drilling Optimization Engineering |
| 5. | Drilling Fluid and Completion Engineering |
| 6. | Mechanical Systems Design Engineering |
| 7. | Vehicle Design Engineering |
| 8. | Friction Stir Welding Engineering |
| 9. | Metallurgical Engineering |
| 10. | Instrumentation Engineering and Control |
| 11. | Printing Engineering |
| 12. | Modeling, Simulation, And Visualization Engineering |
| 13. | Integrated Basin Analysis Engineering |
| 14. | Reservoir Characterization, Modeling & Simulation Engineering |
| 15. | Carbonate Reservoir Characterization Engineering |
| 16. | Carbonate Sedimentology, Diagenesis and Sequence Stratigraphy Engineering |
| 17. | Energy Systems Engineering |
| 18. | Production & Industrial Engineering |
| 19. | Energy And Sustainability Engineering |
| 20. | Engineering Management |

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| **PHDE 103** | **ELECTRICAL ENGINEERING** |

RESEARCH WORK ON **ANY ONE** OF THE FOLLOWING TOPICS

| Sl. No. | Tentative Subject Areas |
|---|---|
| 1. | Geographical Information System (GIS) Engineering |
| 2. | Communications Engineering |
| 3. | Sensor Technology Engineering |
| 4. | Energy Utilization & Power System Engineering |
| 5. | Electronic System Design Engineering |
| 6. | Power Electronics Engineering |
| 7. | Power Systems Engineering |
| 8. | Microelectronics Engineering |
| 9. | Computer Engineering |
| 10. | Computer Architecture Engineering |
| 11. | Intelligent Imaging Engineering |

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| **PHDE 104** | **CHEMICAL ENGINEERING** |

RESEARCH WORK ON **ANY ONE** OF THE FOLLOWING TOPICS

| Sl. No. | Tentative Subject Areas |
|---|---|
| 1. | Ionic Liquid Engineering |
| 2. | Bio-Fuel Engineering |
| 3. | Material Development Engineering |
| 4. | Advanced Process Control Engineering |
| 5. | Process System Engineering |
| 6. | Process Safety Engineering |
| 7. | Oil Field Chemical Engineering |
| 8. | Petroleum Engineering |
| 9. | Catalysis Engineering |
| 10. | Reactor Technology Engineering |
| 11. | Unconventional Hydrocarbon Engineering |
| 12. | Petrochemical Engineering |
| 13. | Petroleum Geosciences Engineering |
| 14. | Separation Engineering |
| 15. | Advanced Materials and Processing Engineering |
| 16. | Biochemical Engineering |
| 17. | Bioengineering |
| 18. | Enhanced Oil Recovery Engineering |
| 19. | Corrosion And Reliability Engineering |

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