## DEGREE OF MASTER OF ENGINEERING IN CIVIL ENGINEERING (07H20554)

Students must also comply with the University General Regulations and the Supplementary Regulations for the Degree of Master of Engineering

## All the courses listed below are prescribed for this degree

|                                                                | PROGRAMM                                         | ME YEAR 1                                                      | - 120 Credit   | Points                            |                  |
|----------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|----------------|-----------------------------------|------------------|
| First Half Session                                             |                                                  | Second Half Session                                            |                |                                   |                  |
| Course<br>Code                                                 | Course Title                                     | Credit<br>Points                                               | Course<br>Code | Course Title                      | Credit<br>Points |
| PD 1002                                                        | Getting Started at the University of Aberdeen    | 0                                                              | EG 1504        | Engineering Mathematics 1         | 45               |
| EG 1008                                                        | Principles of Electronics                        | 15                                                             |                |                                   | 15               |
| EG 1010                                                        | CAD and Communication in<br>Engineering Practice | 15                                                             |                | Fundamental Fraincering           |                  |
| EG 1012                                                        | Fundamentals of Engineering<br>Materials         | 15                                                             | EG 1510        | Fundamental Engineering Mechanics | 15               |
| Plus 15 credit points from courses of choice at Levels 1 or 2. |                                                  | Plus 30 credit points from courses of choice at Levels 1 or 2. |                |                                   |                  |

|                | PROGRAMME YEAR 2 – 120 Credit Points        |                  |                |                                                 |                  |  |
|----------------|---------------------------------------------|------------------|----------------|-------------------------------------------------|------------------|--|
| First Half-Ses | sion                                        |                  | Second Half    | -Session                                        |                  |  |
| Course<br>Code | Course Title                                | Credit<br>Points | Course<br>Code | Course Title                                    | Credit<br>Points |  |
| EG 2004        | Fluid Mechanics and Thermodynamics          | 15               | EA 2502        | Solids and Structures                           | 15               |  |
| EG 2011        | Process Engineering                         | 15               | EG 2501        | Design and Computing in<br>Engineering Practice | 15               |  |
| EG 2012        | Engineering Mathematics 2                   | 15               | EG 2503        | Electrical and Mechanical Systems               | 15               |  |
| Plus 15 cred   | dit points from courses of choice at Levels | 1 and 2.         | Plus 15 cred   | dit points from courses of choice at Leve       | els 1 or 2.      |  |

| PROGRAMME YEAR 3 – 120 Credit Points |                                        |                  |                |                                        |                  |
|--------------------------------------|----------------------------------------|------------------|----------------|----------------------------------------|------------------|
| First Half-Ses                       | First Half-Session Second Half-Session |                  |                |                                        |                  |
| Course<br>Code                       | Course Title                           | Credit<br>Points | Course<br>Code | Course Title                           | Credit<br>Points |
| EA 3027                              | Geotechnics 1                          | 15               | EA 3518        | Mechanics of Structures                | 15               |
| E0 0007                              | Engineering Analysis and Methods       | 45               | EA 3519        | Design of Structural Elements          | 15               |
| EG 3007                              | 1A                                     | 15               | EA 3538        | Structural Dynamics                    | 10               |
| EM 3015                              | Stress Analysis A                      | 15               | EA 3720        | Civil Engineering Design and Surveying | 10               |
| EM 3019                              | Fluid Mechanics                        | 15               | EG 3599        | Project and Safety Management          | 10               |

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|                    | PROGRAM                                     | IME YEAR      | 4 - 120 Credit            | Points                                  |               |
|--------------------|---------------------------------------------|---------------|---------------------------|-----------------------------------------|---------------|
| First Half-Session |                                             |               | Second Half-Session       |                                         |               |
| Course<br>Code     | Course Title                                | Credit points | Course<br>Code            | Course Title                            | Credit points |
| EG 4013            | MEn                                         | g Individua   | I Project (See Note 4) 45 |                                         |               |
| EA 40JE            | Geotechnics 2                               | 10            |                           |                                         |               |
| EA 40JF            | Civil Engineering Hydraulics                | 10            |                           |                                         |               |
| EA 40JG            | Advanced Structural Design                  | 10            |                           |                                         |               |
| Plu                | s one course from the following three:      |               | Plus 30 credit            | points from courses of choice at Levels | 3 and 4       |
| EA 4026            | Advanced Structural Analysis                | 15            | 1                         |                                         |               |
| EA 4027            | Environmental Engineering                   | 15            | 1                         |                                         |               |
| EM 4029            | Nonlinear Mechanics                         | 15            |                           |                                         |               |
|                    |                                             | 0             | R                         |                                         |               |
| First Half-Ses     | ssion                                       |               | Second Half-S             | Session                                 |               |
| Course             | Course Title                                | Credit        | Course                    | Course Title                            | Credit        |
| Code               |                                             | points        | Code                      |                                         | points        |
| EA 40JE            | Geotechnics 2                               | 10            |                           |                                         |               |
| EA 40JF            | Civil Engineering Hydraulics                | 10            |                           |                                         |               |
| EA 40JG            | Advanced Structural Design                  | 10            | 1                         |                                         |               |
| Plu                | s one course from the following three:      |               | EG 4513                   | Individual Project Abroad (MEng)        | 60            |
| EA 4026            | Advanced Structural Analysis                | 15            | ] [0 4313                 | individual i Toject Abroad (METig)      | 30            |
| EA 4027            | Environmental Engineering                   | 15            |                           |                                         | l             |
| EM 4029            | Nonlinear Mechanics                         | 15            |                           |                                         |               |
| Plus 15 cred       | lit points from courses of choice at Levels | 3 and 4.      |                           |                                         |               |

|                    | PROGRAM                               | ME YEAR 5        | 5 – 120 Credit I    | Points                                    |                  |
|--------------------|---------------------------------------|------------------|---------------------|-------------------------------------------|------------------|
| First Half-Session |                                       |                  | Second Half-Session |                                           |                  |
| Course<br>Code     | Course Title                          | Credit<br>Points | Course<br>Code      | Course Title                              | Credit<br>Points |
| EG 501S            | Numerical Simulation of Waves         | 15               | EG 5565             | MEng Group Design                         | 30               |
| EG 501W            | The Engineer in Society               | 15               | Plu                 | s two courses from the following six:     |                  |
| EG 50T9            | Structural Vibrations                 | 15               | EG 552U             | Marine and Wind Energy                    | 15               |
| Pl                 | us one course from the following two: |                  | EG 551T             | Mathematical Optimisation                 | 15               |
| EA 50.10           | Offshore Structural Design            | 15               | EG 55F2             | Pipelines and Soil Mechanics              | 15               |
| EA 50JG            |                                       |                  | EG 55F9             | Riser Systems and Hydrodynamics           | 15               |
| EG 501V            | Computational Fluid Dynamics          | 15               | EG 55P6             | Engineering Risk and Reliability Analysis | 15               |
|                    |                                       |                  | SS 5500             | Remediation Technology                    | 15               |

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|    | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This programme is accredited by the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Institute of Highway Engineers (IHE) & the Chartered Institution of Highways & Transportation (CIHT) as fully satisfying the educational base for a chartered Engineer (CEng)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2. | All course choices at Level 2 and above are subject to students holding the appropriate pre-<br>requisites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3. | Candidates seeking entry to the Junior Honours programme (Programme Year 3) must have accumulated, by award or recognition, or been exempted from, at least 240 credit points at levels 1 and 2, including 240 credit points from courses prescribed for this degree programme. Candidates who do not meet this progression requirement but who do meet the requirements for progression to Programme Year 3 of the DEGREE OF BACHELOR OF SCIENCE IN ENGINEERNG (CIVIL) may transfer to this programme with a view to transferring back to an honours programme for the commencement of Programme Year 4.  Candidates seeking to progress on, or transfer to, the MEng programme will, in addition to meeting the credit requirements set out in the General and Supplementary Regulations, be expected to meet the MEng GPA requirements as publicised in the School of Engineering Undergraduate Student Handbook. |
| 4. | EG4013 will commence in 1 <sup>st</sup> Half-Session and credits will be awarded at the 2 <sup>nd</sup> Half-Session examination diet. It is an expectation that candidates allocate the equivalent of 15 credit points of effort to EG4013 during the 1 <sup>st</sup> Half-Session and 30 credit points of effort during the 2 <sup>nd</sup> Half-Session.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |