UNIVERSITY OF LEICESTER

Module Specification

CH0061 Introduction to Chemistry

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Chemistry
Credits: 30

Student Workload (hours)

Lectures	60
Seminars	
Practical Classes & Workshops	35
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	205
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	300

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Coursework	25				
002	Examination (Final)	75		2		
101	Examination (Final)	100		2		Y

Intended Learning Outcomes

On successful completion of this module, students should be able to
- Explain the nature of atoms and molecules and the concept of isotopes, moles and stoichiometry and perform appropriate calculations
- Name simple organic molecules using IUPAC rules, and explain what is meant by regiochemistry and stereochemistry
- Draw accurate representations of orbitals, inorganic and organic molecules, including chiral molecules
- State the aims and terminology of thermodynamics, including the first and second laws, enthalpy, entropy, Gibbs energy, chemical potentials, and chemical equilibrium
- Explain the difference between exothermic and endothermic reactions and the concepts of reversible reaction and dynamic equilibrium
- Define what is meant by the term oxidation state and be able to work out the oxidation state of an element in a compound
- Recognise electrophiles and nucleophiles and be able to use curly arrows to depict a reaction mechanism

Teaching and Learning Methods

Lectures, example problems, marked work, group problem solving classes & VLE directed activities.

Assessment Methods

Continuous Assessment
Examination

Pre-Requisites

-

Co-Requisites

-

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes.

UNIVERSITY OF LEICESTER

Module Specification

CH0280 Advanced Mathematics I

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	55
Seminars	
Practical Classes & Workshops	5
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	90
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Examination (Final)	100		2		

Intended Learning Outcomes

After completing this module students should be able to:

• Appreciate limit and continuous functions; the nature and operation of the monotone convergence theorem and irrational numbers; infinitesimal comparison function; the continuity of function.
• Use differentiation, including differential functions, derivatives, local linear approximations, Luobida law, differential mean value and Taylor's theorem, to study the behaviour of functions.
• Use and apply integration, including the fundamental theorem of calculus, indefinite integrals and abnormal integrals.
• Use and apply differential equations including an appreciation of the basic concept of differential equations, the elementary integral method and higher order differential equations.

Teaching and Learning Methods

Lectures, example problems, formative marked work, group problem solving classes & VLE directed activities

Assessment Methods

1 x examination

Pre-Requisites

Co-Requisites

Excluded Combinations

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

UNIVERSITY OF LEICESTER

Module Specification

CH0281 Advanced Mathematics II

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	55
Seminars	
Practical Classes & Workshops	5
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	90
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Examination (Final)	100		2		

Intended Learning Outcomes

After completing this module students should be able to:

- Use and apply to the solution of problems partial differential of multivariate functions, including partial derivatives and higher order partial derivatives.
- Appreciate the geometric application of partial derivatives, the extreme value of multivariate functions, directional derivatives and gradients.
- Use and apply to the solution of problems total differential of multivariate functions.
- Appreciate numerical integration of multivariate functions.
- Appreciate the concept and properties of integral quantitative functions.
- Calculate double integrals, triple points, curve and integral of value functions.
- Apply quantitative value integrals in geometry and physics applications.

Teaching and Learning Methods

Lectures, example problems, formative marked work, group problem solving classes & VLE directed activities

Assessment Methods

1 x examination

Pre-Requisites

Co-Requisites

Excluded Combinations

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

UNIVERSITY OF LEICESTER

Module Specification

CH1200 General Chemistry

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	45
Seminars	
Practical Classes & Workshops	5
Tutorials	1
Fieldwork	
Project Supervision	
Guided Independent Study	99
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator: David Davies
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Coursework	25				
002	Examination (Final)	75		2		
003	Examination (Final)	100		2		Y

Intended Learning Outcomes

On successful completion of the module, student should be able to:
- Explain the principles of atomic structure, electron configuration, energy quantisation, wave particle duality, molecular orbital theory and coordinate bonding
- Determine the shapes of covalent molecules using Valence-Shell Electron-Pair repulsion theory
- Predict the Lewis acidity or basicity of a molecule
- Describe chemical equilibria on both molecular and mathematical levels
- Describe the underlying principles of spectroscopy and apply quantitative relationships (e.g. Beer-Lambert law, Rydberg equation) to analyse spectra; predict and rationalize spectra of atoms & molecules
- Draw and name organic molecules explaining their structure, shapeand possible isomers
- Use curly arrow notation to rationalise and predict stability, polar reactivity and acidity for organic molecules

If the student is studying at the Dalian Leicester Institute the student should be able to:
- Draw the shapes of atomic orbitals and show how they can combine to form molecular orbitals using appropriate schematics and energy level diagrams
- Determine the shapes of covalent molecules using Valence-Shell Electron-Pair repulsion theory
- Predict the Lewis acidity or basicity of a molecule and describe what a coordinate bond is
- Describe chemical equilibria on both molecular and mathematical levels
- Explain the principles of atomic structure, electron configuration, energy quantisation, wave particle duality and molecular orbital theory
- Describe the underlying principles of spectroscopy and apply quantitative relationships (e.g. Beer-Lambert law, Rydberg equation) to analyse spectra
- Draw and name organic molecules explaining their structure, shape, possible isomers, hybridisation and ability to delocalise electron density through resonance
- Use curly arrow notation to rationalise and predict polar reactivity and acidity for organic molecules
- Predict and rationalise IR, NMR and MS spectra for organic molecules

Teaching and Learning Methods

Lectures, example problems, tutorials, marked work, group problem solving classes & VLE directed activities

Assessment Methods

- Coursework (30%), Class Test (30%), Final Exam (40%)
- Reassesment by examination (100%)

If the student is studying at the Dalian Leicester Institute
- Coursework (25%)
- Exam (75%)
- Reassessment: Exam (100%)

Last Published: 30 October 2020

Module Specification

CH1200 General Chemistry

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

Module Specification

CH1201 Introductory Organic Chemistry

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	45
Seminars	
Practical Classes & Workshops	5
Tutorials	4
Fieldwork	
Project Supervision	
Guided Independent Study	95
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator: Sandeep Handa
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
004	Coursework	25				
005	Final examination	75		2		
007	Examination (Final)	100		2		Y

Intended Learning Outcomes

On successful completion of the module, student at both Leicester and the Dalian Leicester Institute should be able to:
- Recognise functional groups, anticipate their reactivity and interconversions and the reagents required for these transformations
- Identify and explain the relationships between isomers and conformers of organic molecules.
- Rationalise and predict reactivity based on curly arrow mechanisms and diagrams; explain how structure and bonding controls the outcome and rate of organic reactions
- Interpret and discuss the differences between a variety of reaction mechanisms including nucleophilic substitution, elimination reactions, reactions of alkenes, reactions of carbonyls and electrophilic aromatic substitution
- Predict and interpret spectroscopic data for organic molecules whose structures are known; deduce structures of molecules using spectroscopic and analytical data

Teaching and Learning Methods

Lectures, example problems, tutorials, marked work, group problem solving classes & VLE directed activities

Assessment Methods

- Coursework (25%), Final Exam (75%)
- Reassesment by examination (100%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

Last Published: 30 October 2020

UNIVERSITY OF LEICESTER

Module Specification

CH1202 Introductory Inorganic Chemistry

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	45
Seminars	
Practical Classes & Workshops	5
Tutorials	4
Fieldwork	
Project Supervision	
Guided Independent Study	96
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator: Mark Lowe
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
004	Coursework	25				
006	Examination (Final)	75		2		
007	Examination (Final)	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students at both Leicester and the Dalian Leicester Institute should be able to:
- Calculate oxidation states and dn configurations for transition metal complexes and identify the common types of ligand and methods of complex preparation
- Describe bonding in transition metal complexes using ionic (crystal field theory) and covalent (molecular orbital) models and calculate and crystal field stabilisation energies and use these to explain and predict magnetic and spectroscopic properties of transition metal complexes
- Predict the geometries of complexes, recognising rotational axes, mirror planes and centres of inversion and draw these on diagrams of molecules, use these to assign point groups to molecules and identify the possibility of distortions from ideal geometries and isomerism
- Describe the inorganic chemistry of a range of main group compounds and discuss the broader applications of descriptive inorganic chemistry
- Interpret solid state structures in terms of the type of unit cell adopted, the coordination number and coordination geometry of each atom, the radius ratio, and the relevant bonding models for ionic and metallic solids

Teaching and Learning Methods

Lectures, example problems, tutorials, marked work, group problem solving classes & VLE directed activities

Assessment Methods

- Coursework (25%)
- Exam (75%)
- Reassessment: Exam (100%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

Last Published: 30 October 2020

Module Specification

CH1203 Introductory Physical Chemistry

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	45
Seminars	
Practical Classes & Workshops	5
Tutorials	4
Fieldwork	
Project Supervision	
Guided Independent Study	96
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
004	Coursework	25				
006	Examination (Final)	75		2		
007	Examination (Final)	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students at both Leicester and Dalian Leicester Institute should be able to:
- Describe and explain the aims and terminology of thermodynamics including the first and second laws, basic thermochemistry, enthalpy and entropy, Gibbs energy, acid-base equilibria, simple statistical mechanics and phase diagrams. Discuss electrochemical process and how they relate to thermochemistry
- Describe and explain the properties of ideal and non-ideal gases including the use of virial coefficients, Maxwell distributions and collision rates
- Know the basic principles of reaction kinetics and how they can be measured; use these principles to calculate the effect of various parameters on the rates of chemical reactions
- Perform qualitative and quantitative analyses of and solve problems involving thermodynamic and kinetic data

Teaching and Learning Methods

Lectures, example problems, tutorials, marked work, group problem solving classes & VLE directed activities

Assessment Methods

- Coursework (25%), Final Exam (75%)
- Reassesment by examination (100%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

Last Published: 30 October 2020

UNIVERSITY OF LEICESTER

Module Specification

CH1204 Chemistry Key Skills & Maths

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
004	Coursework	25				
006	Examination (Final)	75		2		
007	Examination (Final)	100		2		Y

Intended Learning Outcomes

On successful completion of the module, student should be able to:
Perform a variety of mathematical manipulations involving working with units, logarithms and trigonmetric functions, solving simultaneous & quatratic equations, plotting and extracting information from graphs
Differentiate and integrate simple and more complex functions using a variety of methods
Perform simple statistical analyses on datasets (mean, median, mode, standard deviation, and use the normal distribution function to identify statistical outliers); calculate errors and uncertainties
Communicate chemical concepts and ideas to a range of audience types using methods that will engage discipline specific and general audiences (e.g. posters, oral presentations and written materials)
Work as part of a diverse team on solving an open-ended scientific problem; planning teamwork and managing time effectively
Reflect on their own skills identifying areas of strength and weakness

Teaching and Learning Methods

Lectures, example problems, tutorials, marked work, group problem solving classes & VLE directed activities

Assessment Methods

- Exam (1st semester, 20%), Coursework (40%), Final Exam (40%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

Module Specification

CH1205 Introductory Practical Chemistry B

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	120
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	30
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator: Mark Lowe
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
004	Practical	100				

Intended Learning Outcomes

On successful completion of the module, students at both Leicester and the Dalian Leicester Institute should be able to:
- Manipulate simple laboratory equipment and glassware and hence perform a variety of basic synthetic and analytical practical procedures (either individually or as part of a larger team) in a safe manner and following good chemistry laboratory practice
- Accurately observe and record experimental details and results and appreciate the different types of errors that may occur and how to deal with them
- Interpret experimental data and report the findings in a concise written report
- Prepare, separate and purify compounds using different techniques including recrystallisation, distillation and tlc; characterise and identify these compounds using a variety of analytical and spectroscopic methods
- Employ a range of analytical techniques to determine important thermodynamic, kinetic and spectroscopic properties of systems, solutions and reactions

Teaching and Learning Methods

Lectures, pre-lab exercises, supervised practical work supported by demonstrations and experimental simulations, marked work, formative feedback

Assessment Methods

- Practical (100%), there are no reassesment opportunities for this module, it must be passed at the first time of taking
- Note - students must attend and complete at least 75% of scheduled laboratory sessions to pass the module

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, pre-lab exercises, online video demonstrations and simulations

Module Specification

CH1282 Advanced Mathematics III

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	55
Seminars	
Practical Classes & Workshops	5
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	90
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
004	Examination	100		2		

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Use and apply vector algebra, spatial analytical geometry, vector operations, vector coordinates as applied to straight lines, curves, surfaces and space planes.
- Use and apply curve integrals, surface integrals of vectors.
- Use and apply integral of vector valued functions on directional curves and directional surfaces.
- Appreciate the relationship between the integral, curve integral and surface integral.
- Use and apply path-independence of plane curve integrals.
- Use and apply infinite series, the discrimination between convergence and divergence of positive and arbitrary series, power series and Fourier series.

Teaching and Learning Methods

Lectures, example problems, tutorials, marked work, group problem solving classes & VLE directed activities

Assessment Methods

- Exam (100%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem solving exercises, formative quizzes

Last Published: 30 October 2020

UNIVERSITY OF LEICESTER

Module Specification

CH1283 College Physics and Practical A

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	42
Seminars	
Practical Classes & Workshops	15
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	93
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
003	Coursework	40				
004	Examination	60		2		

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Plan and perform a variety of physics practical procedures (either individually or as part of a larger team) in a safe manner and following good physics laboratory practice
- Be able to record and interpret data, and present the data in an appropriate format
- Accurately observe and record experimental details and results; subsequently interpret this information and present their findings in a professional format
- Explain the principles of some of, particle motion, Newton's law of motion and centroid motion theorem, momentum theorem and momentum conservation law, angular momentum theorem and conservation of angular momentum, functional principle and conservation law of mechanical energy, rigid body movement and law, compound movement, simple harmonic vibration, damping vibration and forced vibration.
- Explain the principles of some physical theories, such as wave theories, Huygens principle and the Doppler effect.

Teaching and Learning Methods

Lectures, pre-lab exercises, supervised practical work supported by demonstrations and experimental simulations, example problems, group problem solving classes & VLE directed activities

Assessment Methods

- Coursework (40%)
- Exam (60%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, pre-lab exercises, online video demonstrations and simulations. group problem solving exercises, formative quizzes

Module Specification

CH1284 College Physics and Practical B

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Chemistry
Credits: 15

Student Workload (hours)

Lectures	42
Seminars	
Practical Classes & Workshops	15
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	93
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
003	Coursework	40				
004	Examination	60		2		

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Plan and perform a variety of physics practical procedures (either individually or as part of a larger team) in a safe manner and following good physics laboratory practice
- Be able to record and interpret data, and present the data in an appropriate format
- Accurately observe and record experimental details and results; subsequently interpret this information and present their findings in a professional format
- Explain the principles of some of, magnetism, ferromagnetism, electromagnetism, Maxwell's equations, optics and thin lens imaging, interference and diffraction, Huygens-Fresnel principle and the scattering and absorption of light.
- Be able to apply Schrodinger's Equation, the Compton effect and microscopic particle volatility, probability wave and probability amplitude, and the basic principles of quantum, nuclear and particle physics.

Teaching and Learning Methods

Lectures, pre-lab exercises, supervised practical work supported by demonstrations and experimental simulations, example problems, group problem solving classes & VLE directed activities

Assessment Methods

- Coursework (40%)
- Exam (60%)

Pre-Requisites

-

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, pre-lab exercises, online video demonstrations and simulations. group problem solving exercises, formative quizzes

Module Specification

EG0280 Advanced Mathematics 1

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
003	Exam	100		2		

Last Published: 30 October 2020

Module Specification

EG0281 Advanced Maths II

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	64
Seminars	
Practical Classes & Workshops	4
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	82
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Examination	100		2		

Last Published: 30 October 2020

Module Specification

EG0282 Mechanical Engineering Foundation

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	60
Seminars	
Practical Classes & Workshops	14
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	76
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Coursework	30				
002	PBL Project	15				
003	Examination	55		2		
101	Resit Examination	100		2		Y

Last Published: 30 October 2020

UNIVERSITY OF LEICESTER

Module Specification

EG0283 Electrical and Electronic Engineering Foundation

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	36
Seminars	
Practical Classes & Workshops	12
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	102
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Coursework	30				
002	PBL Project	15				
003	Examination	55		2		
101	Resit Examination	100		2		Y

Last Published: 30 October 2020

UNIVERSITY OF LEICESTER

Module Specification

EG1006 Engineering Design and Experimentation

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 30

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Academic Year
Occurence: P
Coordinator:
Mark Scheme: UG Pass for Credit

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Design Assignment Programme	45				
002	Attendance at Manufacture Demonstration	5				
003	Laboratory Logbook	30				
004	Laboratory Formal Report 1	10				
005	Laboratory Formal Report 2	10				
006	Re-assessment Assignment	100				Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Describe different stages of engineering design process and their inter-dependencies and apply appropriate techniques and tools used in product design and development, e.g. market survey, prioritised requirement list, objective tree, functional problem decomposition, specification list, evaluation of concept designs.
- Design practical solutions to engineering problems and use Computer Aided Design to convey information about mechanical and electrical components and circuits to applicable International Standards based on awareness of basic manufacture techniques.
- Conduct mechanical and electrical experiments and basic computational modelling investigations relevant to engineering, including accurate record keeping and logbook use, estimation of error and uncertainty and demonstration of basic coding skills.
- Write technical reports of experimental and/or computational investigations, presenting data to professional standards and comparing experiment and theory.
- Demonstrate professional transferrable skills in a practical engineering context and engage with personal and professional development activities.

Teaching and Learning Methods

Lectures, supervised laboratory and design workshops, Matlab computation classes, Manufacture demonstration (mechanical, electrical and systems), tutorials, induction and career development workshops.

Assessment Methods

- Design assignment programme (45%)
- Attendance at manufacture demonstration (final) (5%)
- Laboratory logbook (30%)
- Laboratory formal report 1 (10%)
- Laboratory formal report 2 (10%)
- Re-assessment assignment (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Last Published: 30 October 2020

EG1006 Engineering Design and Experimentation

Guided Independent Study: Indicative Activities

Directed laboratory pre-reading and supporting materials, set problems, group problem based learning, formative quizzes, preparation of formal reports, careers-based reflective task. Online Matlab study.

UNIVERSITY OF LEICESTER

Module Specification

EG1016 Engineering Mathematics 1

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	49
Seminars	
Practical Classes & Workshops	22
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	79
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	VLE Assignment	20				
003	Exam	80	40	2		
004	Exam	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Solve simple problems involving the concepts of limit, continuity, differentiation and integration of a scalar function.
- Apply the concept of Taylor series for function approximation.
- Solve basic problems involving the use of complex numbers.
- Solve problems involving linear algebra concepts such as vectors, matrices, linear independence, solution of linear systems, eigenvalues and eigenvectors
- Solve ordinary differential equations using standard techniques

Teaching and Learning Methods

Lectures, example classes, VLE self-assessment coursework, intensive maths workshops

Assessment Methods

- VLE assignment (20%)
- Examination (final) (80%)
- Reassessment: Examination (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, example problems. Modules may also include activities such as pre-reading for flipped teaching sessions, group problem based learning, viewing screencasts or podcasts and computer simulation or online activities or quizzes

UNIVERSITY OF LEICESTER

Module Specification

EG1026 Engineering Mathematics 2

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	49
Seminars	
Practical Classes & Workshops	11
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	90
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	VLE Assignment	20				
003	Exam	80	40	2		
004	Exam	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Construct Fourier series of periodic functions
- Demonstrate the basic principles related to functions of many variables, including partial differentiation, vector calculus, and vector integrals.
- Use numerical methods to solve relevant problems such as finding the roots of equations, using simple interpolation and curve fitting techniques, and applying numerical integration schemes.
- Solve simple PDEs using numerical methods in their solution

Teaching and Learning Methods

Lectures, example classes

Assessment Methods

- VLE assignment (20%)
- Examination (final) (80%)
- Re-assessment: Examination (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, example problems. Modules may also include activities such as pre-reading for flipped teaching sessions, group problem based learning, viewing screencasts or podcasts and computer simulation or online activities or quizzes

UNIVERSITY OF LEICESTER

Module Specification

EG1101 Mechanical Engineering

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 30

Student Workload (hours)

Lectures	82
Seminars	
Practical Classes & Workshops	22
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	196
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	300

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Examination (qualified element) (Final)	70	40	3		
002	Computer examination 1	5				
003	Computer examination 2	20		2		
004	Computer examination 3	5				
006	Re-sit examination	100	40	3		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Articulate an understanding of the basic principles of solid mechanics, fluid statics and dynamics and thermodynamics underlying Mechanical and Aerospace Engineering
- Demonstrate an analytical understanding of the different types of problem encountered in Mechanical Engineering and an ability to identify and apply the theory required to solve them
- Interpret data and perform fundamental design calculations across the fields of material properties, structural mechanics, fluid mechanics, thermodynamics and heat transfer.

Teaching and Learning Methods

Lectures, example classes

Assessment Methods

- Examination (final) (80%)
- VLE assignment 1 (10%)
- VLE assignment 2 (10%)
- Re-assessment: Examination (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, example problems. Modules may also include activities such as pre-reading for flipped teaching sessions, group problem based learning, viewing screencasts or podcasts and computer simulation or online activities or quizzes

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Module Specification

EG1201 Electrical and Electronic Engineering

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 30

Student Workload (hours)

Lectures	82
Seminars	
Practical Classes & Workshops	22
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	196
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	300

Period: Semester 1
Occurence: P
Coordinator: Matias Ison
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
002	Exam	80	40	3		
003	VLE Assignment 1	10				
004	VLE Assignment 2	10				
006	Examination	100		3		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Describe and explain the basic principles underlying Electronic and Electrical Engineering encompassing Electromagnetism, Electrical Circuits, Analogue and Digital Electronics and Radio Communications.
- Demonstrate an analytical knowledge of the different types of problem encountered in the field of Electrical and Electronic Engineering and an ability to identify the theory required to solve them.
- Apply basic EM theory that determines the operational characteristics of electromagnetic devices.
- Interpret data and perform a wide range of simple calculations across the fields of Electromagnetism, Electrical Circuits, Analogue and Digital Electronics and Digital Communications

Teaching and Learning Methods

Lectures, examples workshops, examples sheets.

Assessment Methods

- Examination (final) (80%)
- VLE assignment 1 (10%)
- VLE assignment 2 (10%)
- Re-assessment: Examination (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, example problems. Modules may also include activities such as pre-reading for flipped teaching sessions, group problem based learning, viewing screencasts or podcasts and computer simulation or online activities or quizzes.

Module Specification

EG1280 Engineering Mathematics I

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	48
Seminars	
Practical Classes & Workshops	24
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	78
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	VLE Assignment	20				
003	Exam	80	40	2		
004	Exam	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Demonstrate the basic principles related to functions of many variables, including partial differentiation, vector calculus, and vector integrals.
- Solve problems involving linear algebra concepts such as vectors, matrices, linear independence, solution of linear systems, eigenvalues and eigenvectors
- Solve simple PDEs using numerical methods in their solution

Teaching and Learning Methods

Lectures, example classes, VLE self-assessment coursework, intensive maths workshops

Assessment Methods

- VLE assignment (20%)
- Examination (final) (80%)
- Reassessment: Examination (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, example problems. Modules may also include activities such as pre-reading for flipped teaching sessions, group problem based learning, viewing screencasts or podcasts and computer simulation or online activities or quizzes.

Module Specification

EG1281 Engineering Mathematics II

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	48
Seminars	
Practical Classes & Workshops	24
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	78
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	VLE Assignment	20				
003	Exam	80	40	2		
004	Exam	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to:
- Solve problems involving linear algebra concepts such as eigenvalues and eigenvectors.
- Demonstrate the basic principles related to probability theory, mathematical statistics and data analysis
- Solve problems involving statistics concepts such as sampling, estimation of parameters and hypotheses testing.

Teaching and Learning Methods

Lectures, example problems, formative marked work, group problem solving classes & VLE directed activities.

Assessment Methods

- VLE assignment (20%)
- Examination (final) (80%)
- Re-assessment: Examination (100%)

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, example problems. Modules may also include activities such as pre-reading for flipped teaching sessions, group problem based learning, viewing screencasts or podcasts and computer simulation or online activities or quizzes.

Module Specification

EL0005 English for Specific Academic Purposes

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 15

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator: James Lambert
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Presentation Assessment	50		0.33		
002	Portfolio of Coursework	50				

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Module Specification

EL0234 English for General Academic Purposes

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: English Language Teaching Unit (ELTU)
Credits: 45

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator: James Lambert
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Speaking Test	20		0.33		
002	Listening Test	20		0.67		
003	Reading Test	20		1		
004	Writing Test	20		1		
005	Project	20				

Last Published: 30 October 2020

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Module Specification

FS0014 Science 4: Electricity, Magnetism and the Quantum World

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Physics and Astronomy
Credits: 15

Student Workload (hours)

Lectures	26
Seminars	
Practical Classes & Workshops	12
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	112
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Core Learning Exercises	30				
002	PBL Project	15				
003	Journal Club	15				
004	Examination (Final)	40		2		
101	Examination	100		2		Y

Intended Learning Outcomes

On successful completion of the module, students should be able to
Describe the electromagnetic spectrum and basic quantum mechanical concepts
Explain the behaviour of a particle subject to the influence of magnetic and electric fields
Discuss and apply Kirchoff's laws to electric circuits
Model and solve simple problems involving Coulomb's law
Explain physics concepts by means of presentation or report

Teaching and Learning Methods

Each of the core Science modules will have a similar structure. The syllabus will be taught by means of lectures supported by workshops. Essential pre-lecture study material will be signposted in the course handbook. Each week, learning will be supported by means of tailored core learning exercises which will be completed as gudied independent study and then submitted as coursework for formative and summative feedback.

Each module will contain a problem-based learning project. PBL begins with a real world, open-ended problem designed to stimulate learning. Students work in group (in facilitated sessions) to research the subject material and obtain the knowledge they need to produce a group deliverable which is submitted for assessment and feedback.

Assessment Methods

Core learning exercises
PBL Project
Workshops
Examination

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Last Published: 30 October 2020

FS0014 Science 4: Electricity, Magnetism and the Quantum World

Guided Independent Study: Indicative Activities

Foundation Year students are expected to engage in independent study outside of the taught sessions in order to develop knowledge and skills. Individual students will approach this differently and develop their own patterns of working. As a broad guide it might be helpful to spend roughly the suggested proportion of time on each of these activities:

- Preparation for lectures 10%
- Reviewing course material, including revision 40%
- Core learning exercises 30%
- PBL planning, preparation, creation of deliverable 20%

UNIVERSITY OF LEICESTER

Module Specification

FS0015 Mechanical Engineering Foundation

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Physics and Astronomy
Credits: 15

Student Workload (hours)

Lectures	24
Seminars	6
Practical Classes & Workshops	22
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	98
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	150

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Honours Level

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Core Learning Exercises	30				
002	PBL Project	15				
003	Journal Club	15				
004	Examination (Final)	40		2		
101	Examination	100		2		Y

Intended Learning Outcomes

Students will be able to
Describe the nuclear, atomic, chemical and elastic properties of materials; Explain the properties of solids, liquids and gases; Describe the motion of particles and bodies subject to forces; Model and solve simple problems involving Newton's laws of motion
Describe various forms of energy; Explain the behaviour of a system subject to conservation of energy;

Teaching and Learning Methods

The module will be taught by means of two (flipped) lectures per week. Essential pre-lecture study material will be signposted in the course handbook. Each week, learning will be supported by means of tailored core learning excercises which will be completed in supervised group sessions and private study and then submitted as coursework for formative and summative feedback.
Each module will contain a five-week problem-based learning project. PBL begins with a real world, open-ended problem designed to stiumlate learning. Students work in group (in facilitated sessions) to research the subject material and obtain the knowledge they need to produce a group delivereable which is submitted for assessment and feedback. In addition to the lectures and PBL, each module will contain a Journal Club. Students will be given scientific articles (at an appropriate level of difficulty for Year 0, for example, New Scientist/Scientific American, Physics World) and will be required to make a ten minute presentation and evaluation of the paper and answer questions from their peers. The students' grasp of the science, presentations skills and engagement will be assessed by staff.

Assessment Methods

Weekly core learning exercises
PBL deliverable
Journal Club presentations
End of Semester examination.

Pre-Requisites

Co-Requisites

Excluded Combinations

-

Guided Independent Study: Indicative Activities

Directed reading, set problems, group problem based learning, formative quizzes

Module Specification

XX0001 Military Theory and Training

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020

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Module Specification

XX0002 Moral Cultivation and Basic Law

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

Module Specification

XX0003 Physical Education I

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

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Module Specification

XX0004 Chinese Modern Contemporary History and Situation Policy

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

Module Specification

XX0005 Physical Education II

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

Module Specification

XX0006 Engineering Training

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Summer Term
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

Module Specification

XX0007 College Student Mental Health and Health Education

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Summer Term
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

Module Specification

XX0008 DUT General Optional Module I

Academic Year: 2018/9
Module Level: Foundation Year
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment	100				

Last Published: 30 October 2020

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Module Specification

XX1001 Principle of Marxism and Theory of Socialism

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020

Module Specification

XX1002 College Computing

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020

Module Specification

XX1003 Cognition Practical

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Summer Term
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020

Module Specification

XX1004 Principles of Process Engineering

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020

Module Specification

XX1005 DUT General Optional Module II

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020

Module Specification

XX1006 Process Equipment

Academic Year: 2018/9
Module Level: Year 1
Scheme: UG
Department: Engineering
Credits: 0

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 2
Occurence: P
Coordinator:
Mark Scheme: UG Grade Only

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Attendance/Assessment					

Last Published: 30 October 2020