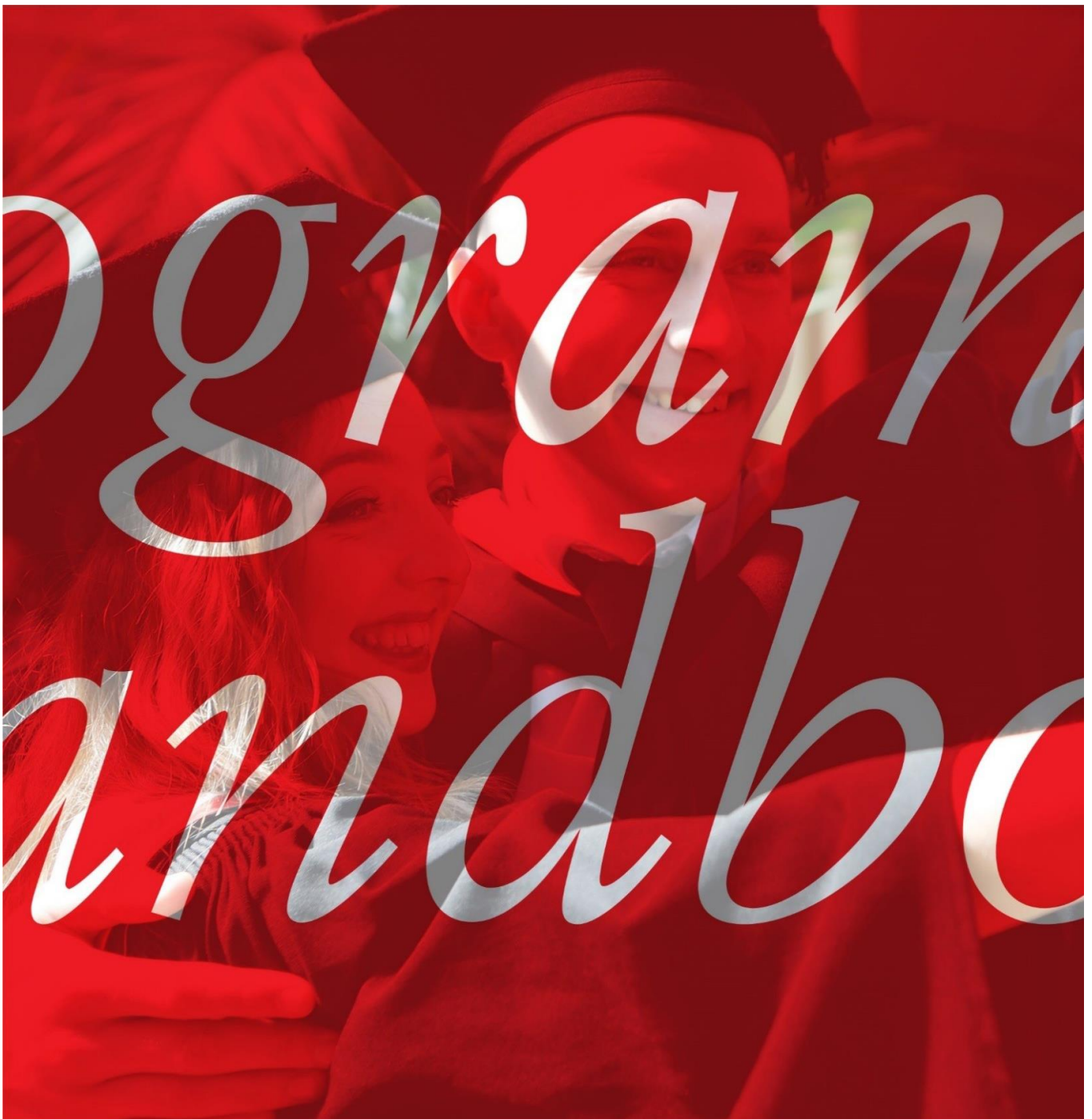


Programme Handbook 2019-20

Automotive Engineering and Technology (Automotive)

AUT-A-2015



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WELCOME

Welcome to Blackpool and The Fylde College and to the Automotive Engineering and Technology (Automotive) (AUT-A-2015) programme.

This **Programme Handbook** aims to provide you with the key information you will need to settle into and get the most out of your programme of study here at the College leading to successful completion of your programme. It will provide you with an overview of the programme content, how individual modules are organised and delivered, how and when you will be assessed and how overall grades final results are determined. In addition there is information on the help and general support available to you as well as making it clear what you need to do if you should encounter any specific difficulties in progressing as planned on the programme.

There is also further information available in the Partners for Success HE Guide which includes an overview of the College partners and how they will support you on your journey, alongside key information on College facilities, student representation and events you can get involved in. Guidance on term times, Travel to College, Attendance Expectations can be accessed through the College website and virtual learning environment (VLE).

It is strongly recommended that you refer to your **Programme Handbook** and **Partners for Success HE Guide** if you are to get the most out of the time you will have invested in participating in your valuable and hopefully enjoyable learning experience.

We appreciate that as students in order for materials to be fully accessible you may have a preference for a specific font size or colour of text/paper. To ensure that your needs are considered this handbook is available electronically.

GENERAL INFORMATION ABOUT YOUR PROGRAMME

Programme Code	AUT-A-2015
Programme Title	Automotive Engineering and Technology (Automotive)
Teaching Institution	Blackpool and The Fylde College
Professional, Statutory and Regulatory Body (PSRB) Accreditation	None
UCAS Code	
Language of Study	English
Version	1

Programme Awards			
Award	Award Type	Level	Awarding Body
LU Foundation Degree in Engineering	Foundation Degree (240 credits)	Level 5	Lancaster University
LU Bachelor of Engineering with Honours (Top-up)	Honours Top-up Degree (120 credits)	Level 6	Lancaster University

THE FRAMEWORK FOR HIGHER EDUCATION QUALIFICATIONS (FHEQ)

The Framework for Higher Education Qualifications (FHEQ) ensures the comparability of Higher Education qualifications in England, Wales and Northern Ireland. The framework describes the achievement represented by qualifications and the various awards which may be granted by a Higher Education provider with degree awarding powers. All students pursuing Higher Education programmes at Blackpool and The Fylde College are awarded qualifications aligned to the FHEQ upon successful completion of their programme.

Level	4	5	6	7	8
FHEQ Level	Certificate (C)	Intermediate (I)	Honours (H)	Masters (M)	Doctoral (D)
About this level of qualification	<p>Level 4 These qualifications are work-related (vocational) higher education qualifications. While bachelors degrees tend to focus on gaining knowledge, HNCs are designed to give you the skills to put that knowledge to effective use in a particular job.</p>	<p>Level 5 These qualifications are designed to equip you for a particular area of work – as well as giving you the general skills that are useful in any type of job. They're university-level qualifications, but are designed with work in mind, with the help of employers from that sector.</p>	<p>Level 6 These qualifications are designed to give you a thorough understanding of a subject. They help you develop your analytical, intellectual and essay or dissertation writing skills. You'll also have much more of a say about the direction your learning takes than you've had previously.</p>	<p>Level 7 These qualifications are of academic study. They can be research based, a taught course, or a mixture of both, and will take at least 12 months of full-time study to complete. You may also have to submit a dissertation at the end of your course.</p>	<p>Level 8 This level gives you the opportunity to undertake an original piece of research. It will usually take at least three years of full-time study to complete. Many doctorate courses lead to a qualification such as a Doctor of Philosophy – a PhD or Dphil.</p>
Qualifications that are available at this level	<p>Higher National Certificates (HNC)</p> <p>Foundation Studies (FS)</p> <p>Diploma</p>	<p>Higher National Diplomas (HND)</p> <p>Foundation Degrees (FD)</p> <p>Diploma of Higher Education (DipHE)</p>	<p>Bachelor Degrees (BA, BSc)</p> <p>Bachelor Degrees with Honours (BA Hons.)</p> <p>Professional Graduate Certificates in Education (PGCE)</p>	<p>Masters Degrees (MA, MSc)</p> <p>Postgraduate Certificates and Diplomas</p> <p>Post Graduate Certificates in Education (PGCE)</p>	<p>Doctoral Degrees</p>

PROGRAMME OVERVIEW

Blackpool and the Fylde College remains committed to providing a highly responsive curriculum that is employment and future-focused and will enable students to develop the essential knowledge and skills that will prepare them for future success in work and life

The automotive industry is a strong employer in the region and our principle aim is to move students into employment. The output of motor vehicles in this country is at a record high, with 80% being exported. The government has repeatedly highlighted the need for highly qualified technicians in engineering to support and grow the economy.

Blackpool and The Fylde is committed to providing the employees with the high-end knowledge and skills that employers in the North West need to drive economic recovery.

This mature programme has existed for over ten years and has successfully provided industry ready graduates for the automotive and auto sport industries. This revalidation is an excellent opportunity to not only refine and refresh current modules to ensure industry alignment but is an opportunity to

develop the programme further to contain new and innovative modules which develop skills and knowledge that the automotive industry needs.

PROGRAMME AIMS

Foundation Year (Yr0):

- To provide a sound foundation in automotive engineering knowledge and principles to support further study.
- To produce engineers with the practical and technical skills to progress to further studies.
- To develop understanding and skill in the automotive discipline which enables students to apply and transfer knowledge to a limited range of contexts.

Foundation Degree:

- To produce professional engineers who have the capacity to work successfully within the automotive sector, producing sustainable outcomes for the success of the industry and to take responsibility for lifelong learning necessary to build a successful career.
- To provide the opportunity for students to develop understanding of scientific principles, mathematical and statistical methods necessary to support application of key automotive engineering principles and technology in the workplace.
- To explore developments in the automotive field of design, engine design and technologies in order to apply problem solving skills and technical knowledge to either create or adapt design solutions that are fit for purpose.
- To provide students with the opportunity to monitor acquire, analyse and, evaluate new developments in the sector as they occur and to apply these appropriately to their chosen specialist field.
- To provide students with the opportunity to gain transferable knowledge and skills to enable them to play a full part in the Automotive/Motorsport research and development industry, commerce and the wider community.

Bachelor Degree:

- To prepare students for their future careers by providing them with the requirements of a professional engineer together with a suitable range of transferable and management skills appropriate to the practices of automotive engineering.
- To provide a programme of study which develops core knowledge and understanding of engineering principles, mathematics and computation appropriate to the field of the automotive industry.
- To enable students to develop specialist knowledge, intellectual and practical skills which will enable them to analyse, investigate and develop robust solutions to automotive engineering problems.
- To develop relevant study, personal and employability skills so that students progressively take responsibility for their own learning to become independent learners.

PROGRAMME LEARNING OUTCOMES

Level 4

Upon successful completion of this level, students will be able to:

1. Discuss key principles of automotive engineering and relate these to engineering problems.
2. Apply automotive principles and knowledge to practical situations.
3. Identify both scientific and mathematical core principles and apply these to automotive problem solving.
4. Communicate ideas, engineering, scientific and mathematical information to specified audiences.

Level 5

Upon successful completion of this level, students will be able to:

5. Use academic and digital literacies and apply these in an automotive engineering context.
6. Identify, explain and use scientific, mathematical and statistical methods which underpin relevant automotive engineering principles and technologies.
7. Monitor, interpret and apply quantitative methodology using the results of analysis and modelling in order to bring about continuous improvement of performance of systems and components.
8. Apply a systems approach to solving engineering design problems which utilises technical knowledge and understanding and relevant technologies to create or adapt design solutions.
9. Use relevant materials, equipment, tools, processes or products in appropriate automotive engineering contexts incorporating codes of practice, industry standards and quality issues.
10. Examine business, customer and user needs, including considerations such as the wider automotive engineering context, public perception and aesthetics.
11. Promote sustainable development and sustainability options in automotive engineering which recognises legislative and environmental constraints.
12. Conform to health and safety and professional working conditions within the context of the subject specialisms.

Level 6

Upon successful completion of this level, students will be able to:

13. Use established techniques of modelling, critical, statistical and mathematical analysis and enquiry to solve problems and to arrive at working solutions within the field of automotive engineering.
14. Critically analyse and evaluate scientific principles, engineering analyses and methodologies to support the application of key engineering principles and technologies.
15. Communicate the results of work to technical and non-technical audiences which reflects knowledge and understanding of automotive engineering principles.
16. Critically examine the commercial, economic, legal, social and ethical contexts working as a professional engineer.
17. Conduct a systematic research enquiry, applying problem solving, information retrieval and communication skills; drawing relevant conclusions and making recommendations to inform future practices in the chosen specialist field of automotive engineering.

PROGRAMME STRUCTURE & ASSESSMENT OVERVIEW

Pathway	Module	Level	Credits	Coursework	Practical	Written Exam
Stage 1: Year 1						
Stage exit award: LU Certificate of Higher Education (Awarded by Lancaster University)						
All	AUT301: Automotive Mathematics (Mandatory)	3	20	70%		30%
	AUT302: Automotive Science (Mandatory)	3	20	70%		30%
	AUT303: Automotive Manufacturing (Mandatory)	3	20	70%	30%	
	AUT401: Automotive Powertrain Fundamentals (Mandatory)	4	20	70%		30%
	AUT402: Automotive Composites (Mandatory)	4	20	70%	30%	
	AUT403: Vehicle Body Design and Crash Test Technology (Mandatory)	4	20	35%	35%	30%
Stage 2: Year 2						
Stage exit award: LU Diploma of Higher Education (Awarded by Lancaster University)						
All	AUT404: Engineering Mathematics 1 (Mandatory)	4	20	70%		30%
	AUT405: Computer Aided Engineering and Design (Mandatory)	4	20		70%	30%
	AUT406: Vehicle Aerodynamics (Mandatory)	4	20	50%	50%	
	AUT407: Engine Technologies and Development (Mandatory)	4	20	70%		30%
	AUT408: Chassis Performance Testing (Mandatory)	4	20	85%	15%	
	B4SCAUT-A: Introduction to Academic Study (Mandatory)	4	20	60%	40%	
Stage 3: Year 3						
Stage exit award: B&FC Foundation Degree in Engineering (Awarded by Blackpool And The Fylde College)						
All	AUT501: Engineering Mathematics 2 (Mandatory)	5	20	70%		30%
	AUT502: Major Project (Mandatory)	5	40	90%	10%	
	AUT511: Engine Design Analysis (Mandatory)	5	20	50%		50%
	AUT512: Vehicle Dynamics and Data Logging (Mandatory)	5	20	100%		
	BFC501-E: Work Based and Placement Learning (Mandatory)	5	20	100%		
Stage 4: Year 4						
Stage exit award: LU Bachelor of Engineering with Honours (Awarded by Lancaster University)						
All	AUT601: Dissertation (Mandatory)	6	40	80%	20%	
	AUT602: Dynamic Simulation (Mandatory)	6	20	30%		70%
	AUT603: Alternative Power Sources (Mandatory)	6	20	30%		70%

AUT611: Engine Design Simulation and Analysis (Mandatory)	6	40	80%	20%	
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WHERE WILL I STUDY?

This programme may be studied at the following location:

B&FC Bispham Campus

Courses in Construction, Engineering and Automotive are delivered at our Bispham Campus. Here you can access a central reception, vital student support functions and a convenient number of retail outlets all within one attractive Hub development. Bispham Campus has recently been the focus of a stunning £3.5m upgrade, with the result that it is now dramatically more energy efficient, along with the multi-million pound development of the Advanced Technology Centre. The Bispham campus hosts a range of specialist equipment and facilities tailored towards computing, engineering and construction.

GETTING STARTED

At the start of your course, your tutors will guide you through an initial induction which is designed to ease you into university life and higher level studies. Activities generally focus on helping you to find your feet, make friends and plan your studies. It can also traditionally be the time when students get to let their hair down and familiarise themselves with both the College and the local area before getting down to the more serious business of studying.

Our annual Freshers' Fair is a fun, vibrant event and a great chance to find out more about what's on offer locally, with representatives from the B&FC Student Union, Higher Education Learning Mentors (HELMs), The Loop LRC, Careers Team and our Disability team who can provide information on Disabled Students' Allowances, access arrangements and reasonable adjustments. Representatives from local attractions, restaurants, health and fitness centres, clubs, bars and more will also be there. Support organisations and charities are represented too, along with B&FC's own clubs and societies and sports teams.

LEARNING AND TEACHING

The overall strategy for teaching, learning and assessment for all three years of the programme from Year 0 through to level five will allow students to become progressively more independent automotive engineers with a broad base of knowledge in the automotive area and with the skills to perform within employment. To this end the programmes are designed to become more challenging to students through the semesters and levels, with a reduction in directed learning and support, to learning that is more independent and is self-directed.

Foundation Year (Yr 0)

In the Foundation Year students are provided with teaching sessions which encompass presentation methods through use of the interactive whiteboards for problem solving, mathematical calculations and dissemination of key concepts and principles. VLE materials and presentations are also used to create variety of stimulus and to ensure that all students are able to engage with the active learning strategies employed on the programme. In addition to the taught theory elements students are provided with opportunities to engage in group, pair and individual problem solving practical activities in workshops and classrooms to further develop knowledge, skills and attitudes which will support them when they access the Foundation Degree. Practical skills-development is supported by students engaging in practical diagnosis of engine faults and functionality through industry-standard, strip-and-rebuild facilities, working in either groups or as individuals, according to task and context. Technical skills are developed through the use of Computer Aided Engineering (CAE) software where students work with this individually in the sessions and then work independently using the VLE supported by the tutors through one to one and group tutorials.

The focus of the teaching and learning strategy for Year 0 is supporting the development of basic foundational knowledge and skills which will enable the students to achieve on the FdEng Programme. The Year 0 is characterised by more individual and group support and the teaching and learning methods reflect this being more student centred yet still quite teacher directed.

Level 4

As students begin their Foundation Degree studies they will experience a number of different teaching and learning methods which are appropriate to the subject discipline and are accessible to students at this stage of their development.

The strategy at this level is to consolidate work completed at Level 3 and in some cases Yr0 programmes and to use this to build on and further develop understanding of automotive concepts and skills.

Students will begin to have more lecture formats, however these are interactive and involve active questioning, and group and pair work activities. Students are provided with lots of vocationally relevant tasks in the workshops where they will apply engineering principles to solve problems; this will be done using software based simulations. Collaborative activities are a key feature of the level 4 teaching and learning strategy and as such group work is used extensively. At level 4 this builds individuals confidence and skills in a supportive group environment and gives them the opportunity to further develop independent learning skills required for progression through the programme.

Level 5

During level 5 students are expected to engage in a major project and to engage in work based / placement learning. These two modules will be taught using tutorial, one to one and small group methods. The key to these modules is individualised learning. Students will negotiate their projects with their tutor and will be supported in their independent learning through directed activities; this may include secondary research and interrogation of data. Weekly diary sessions are used on the programme. The tutorial and the dialogue between teacher and tutor form the major teaching and learning approach for these two modules. Other teaching and learning activities at level 5 consist of lectures, seminars, workshops and practical sessions.

Independent learning is systematically developed throughout the programme and the teaching and learning methods reflect this with more tutor directed activities in level 4 and more independent, autonomous learning activities at L5. Students will be expected to review data through analysis, rather than comprehension. Presentation of analysed data - by individuals or groups - will form the basis of student-led seminar activities.

Work based learning is integrated in all levels of the programme introduced at Level 4 and developed further at Level 5. Wherever possible, work based scenarios are used in formative or summative assessment and are formally assessed in the **Work Based Learning** module.

There are links between modules and a focus on development from Level 4 (where knowledge and skills are acquired) to Level 5 where they are expanded and applied.

All delivery methods will be supported by access to electronic information through the academic staff, the college's VLE and the Learning Resource staff. Teaching and learning throughout Levels 4 and 5 will involve independent study and group work and a combination of both.

Level 6

Teaching will be by a combination of lectures, seminars, practical laboratories and formative assignments, supported where appropriate by other methods such as guest lectures, blended learning, tutorials, industry visits and work placement.

The teaching and learning strategy for L6 is based on the assumption that students are now more skilled and accomplished independent learners able to manage and organise their own research and enquiry work and are able to work with limited supervision on a range of directed learning tasks. The predominant strategy for L6 is student centred with managed learning tasks such as research, interrogation of data, hypothesis and systems testing, models testing and critical evaluation of problem

solving approaches and solutions. Students are expected to study and learn independently, and become proficient in organising their time and prioritising workload.

Individual and / or team projects will develop the students' understanding of subjects / topics through theoretical and practical applications. The combination of theoretical and practical activities will be delivered through a combination of traditional presentation and more student centred enquiry project work.

The teaching techniques, learning activities, modes of assessment and have been selected to ensure all learners who undertake these programmes are given every opportunity to achieve module outcomes.

Independent Learning

All higher education programmes are designed so that you are able to progressively develop independent learning skills and aptitudes. Learning independently is a key skill of all graduates when they enter the work place and one which we aim to develop further during your time with us.

As you begin your programme you will be more intensively supported to develop the skills of learning and learning how to learn. As you progress you will be given the opportunity to apply these skills and to manage your own study time and activities with the goal of becoming a truly independent learner ready to get the most out of graduate employment opportunities.

Your Personal Development planning activities are a key component in developing these independent learning skills and your tutors, support mentors and peers can help you to organise and structure this aspect of your learning and development.

WORK BASED AND PLACEMENT LEARNING

The course is delivered over a two day period, giving maximum flexibility for seeking relevant work experience.

In year 2 students will have to complete the Work Based and Placement Learning module. This gives every student the opportunity to contextualise their studies in a work environment, making sense of their studies in relation to the industry they have chosen to pursue careers in. Module leaders will give guidance throughout the course as to the correct work experience which can take place during any period of study.

Further guidance of the sources and types of relevant work experience to the course is given in the module handbook.

Placements are arranged and managed by the programme team utilising their effective links with employers. Placements are arranged to take place in L5 and all students require a placement to complete the work based learning elements. Should a student for whatever reason lose their placement the team have strategies to ensure that the student can still meet the learning outcomes for the module, Alternative placement opportunities will be explored but should these not be able to be fulfilled our strategy is for students to carry out work specific work based projects and industry sponsored live briefs at the Bispham Campus.

ASSESSMENT

Formative assessments include verbal question and answer for knowledge testing and observation of practical and workshop tasks with verbal and in some cases written feedback provided. Formative assessment opportunities are provided for all modules at appropriate times in the assessment schedule according to need and designed to enable the student to meet the requirements of the summative assessments.

Summative assessment is varied and engaging with a range of formats offered. Examinations are required through Lancaster regulation and are set to be part of the summative assessment for a number of modules. Coursework is varied and related to industry requirements.

Assessment strategies will aim to test a range of skills and knowledge and, whilst following the regulations laid out by Lancaster University, will include (but may not be limited to); unseen examinations, self and peer assessments, practical reports, subject reports, data interpretation, critical analyses of data, oral presentations, major project and portfolio.

Within each level, assessment will be co-ordinated to provide a balance of assessment strategies so as to develop knowledge and skills. These will become progressively more challenging, allowing students to demonstrate skill development and knowledge acquisition. Industry focus is an important element of summative assessment and as such employer partnerships play a role in the design of assessments ensuring the programme is aligned to the needs of industry.

Level 6

Formative assessment at L6 consists of tutorial one to one diary meetings providing an individualised approach which enables students to discuss their progress on independent tasks and to receive detailed and targeted feedback from the tutor. Other formative assessments involve operation of software to develop models, these models are assessed and feedback is provided to enable students to progress and make improvements and minimise future errors.

Summative assessment for Level 6 consists of two exams in modules AUT602 Dynamic Simulation and Alternative Power Sources AUT603. The dissertation Module is assessed through the production of an extended dissertation enquiry with an accompanying showcase. In module Race Engine Design Simulation and Analysis an extended yearlong project is assessed by means of a correlational prototype project with an accompanying presentation. All other summative assessments on the L6 consist of coursework activities to include case studies, reports and simulations.

Assessment Methods

Some assessments may already be very familiar, such as essays, exams, and reports. However, in higher education there are a great many varieties of assessment depending on the subject, the level and the type of course. Our higher education courses often integrate academic and work-based learning so assessment may include aspects of personal reflection, portfolio building and case studies. Here's a bit more detail about some of the more common types of assessment:

Essay

An essay is an answer to a question in the form of continuous, connected prose, usually with a word limit. Often these are set by the tutors but you may also be asked to formulate your own question with the tutor's help. Essays test your ability to organise your thinking, discuss, evaluate, analyse, summarise and criticise. They also test your skills at making essay plans and reaching a robust conclusion or decision.

Assignment or brief

An assignment or brief is a learning task that allows you to cover a fixed section of the curriculum predominantly through independent study. Different methods of presenting the results can be used dependent on the nature of the task - a report (oral or written), a design solution, a newspaper or magazine article, a video, a poster, a research bid, a book review, a contribution to a debate, etc.

Group project or assignment

This is where either an assignment or project is undertaken by groups of students working collaboratively, helping to develop team working skills and other graduate attributes. In some cases, particularly where the same thing happens in industry, there are particular assignments that can by definition only be achieved in a group. Such assessments will incorporate mechanisms which allow the tutor to assess the contribution of individual members of the group or team in order to allocate individuals with a personalised assessment grade.

Exams

Exams can take a variety of different forms, with the most common sort being done under timed and observed conditions to ensure it is the student's own work. Exams test your ability to think critically, to respond in a structured way to a question and to plan on the spot as well as your knowledge and understanding of the subject. Some of the most common types of exams are:

- 'Seen' where the questions to be answered are given at a pre-specified date beforehand. The intention is to reduce the need for 'question-spotting', to reduce the anxiety and to increase the emphasis on learning
- 'Open-book', where you will have access to specified texts and/or your notes. the intention is to reduce the emphasis on memorising facts, to reduce anxiety and allow more demanding questions to be set
- 'Unseen' where you don't know what the questions are until you sit the exam. Arguably these make you focus on the whole syllabus because anything may appear on the paper
- Multiple choice exams where you simply select from a bank of potential answers. These also assess your decision making skills

Logs and Portfolios

These are an increasingly popular kind of assessment, and involve a collection of all sorts of evidence of your work (often including others' testimony about your work, and feedback you've collected). Portfolios are intended to be a measure of the work of the 'whole candidate', rather than just particular aspects of the candidate's work. They also measure your ability to organise a collection of evidence, in a readable, navigable way. Not least, they test your ability to stick to deadlines with a big, multifaceted job.

Reports

There are many kinds of reports – laboratory ones, field-trip ones, business ones, and so on – each has its own conventions and preferred formats – your tutors will tell you more. Assessed reports measure your skills at finding out about, and adhering to, the expected report formats and conventions in your subject discipline. They also measure your ability to put forward an organised piece of writing, coming to conclusions, making suggestions for further work, and so on. They often test your skills at interpreting data, making sense of your findings, and so on.

Calculations and problem solving

Usually given in sets – with a deadline for tutor marking, or to bring along completed to a tutorial. These, unsurprisingly, tend to measure your ability to solve problems and do calculations.

Presentations

Lots of students worry about presentations – you normally build up to these as your course progresses and you'll be given lots of support and time to prepare. You may be involved in group or solo presentations, perhaps to some or all of your class, usually with the tutor present. Sometimes peer assessment is used. Presentations measure your ability to talk fluently about a topic, and to answer questions from the group. They also measure your skills at preparing visual aids (overheads, handouts, PowerPoint presentations) to support your presentation. On some courses there are very few presentations. However, in the workplace, more and more people have to be involved in them, so practising on your course is a very good way of developing your skills.

Self and peer assessment

There is strong evidence that involving students in the assessment process can have very definite educational benefits. Not so much a type of assessment like those already listed, this is something which can be done in conjunction with any type of assessment. The important aspect is that it involves the student in trying to apply the assessment criteria for themselves. This might include: a marking exercise on 'fictitious' or previous years' student work; the completion of a self-assessment sheet to be handed in with your work; 'marking' a peer's work and giving them feedback (which they can then possibly redraft before submission to the tutor); or really marking other students' work (i.e. allocating marks which actually count in some way) - a seminar presentation, for example, or a written product using a model answer. The evidence is that through trying to apply criteria, or mark using a model answer, you will gain much greater insight in to what is actually being required and subsequently your own work improves in the light of this.

When will I be assessed?

In the majority of courses you will be assessed throughout your course and you will receive on-going feedback to help you develop academically. This is sometimes called formative assessment and is designed to help you learn as you go through your course. Some formative assessment is quite informal; it may be your tutor asking specific questions in class, for example. Other types of formative assessment can include written reports, essays, tasks for seminars etc., some of which are handed in so that written feedback can be provided. You will also be assessed summatively. This just means that in each module or unit, often at the end, you will complete work that is then graded, where the mark counts towards your final qualification.

At the start of your course you will be given an **assessment schedule** which details the deadlines for the assessments in all the modules you will be studying. This will help you to plan your work effectively. Your tutors understand that you have lots of commitments so will always try to spread the assessments out as much as they can, although inevitably many will come towards the end of each semester.

How will my work be marked and graded?

The majority of your assessments will be awarded a letter grade as outlined in the table below. Some of your assessments may however be assessed by percentages, which are converted into an aggregation score. Some assessments may also be identified as pass/fail assessments. Such assessments must be successfully passed in order to pass the module, however the aggregate score for the module will be derived from other assessments which are graded. Overall, you must achieve an aggregation score of 9 or above to pass a module.

Further information is available at: <http://www.blackpool.ac.uk/he-regulations>

Category	Grade	Aggregation Score	Grade Description
Excellent Pass	A+	24	Exemplary range and depth of attainment of intended learning outcomes, secured by discriminating command of a comprehensive range of relevant materials and analyses, and by deployment of considered judgement relating to key issues, concepts and procedures
	A	21	
	A-	18	
Good Pass	B+	17	Conclusive attainment of virtually all intended learning outcomes, clearly grounded on a close familiarity with a wide range of supporting evidence, constructively utilised to reveal appreciable depth of understanding
	B	16	
	B-	15	
Satisfactory Pass	C+	14	Clear attainment of most of the intended learning outcomes, some more securely grasped than others, resting on a circumscribed range of evidence and displaying a variable depth of understanding
	C	13	
	C-	12	
Weak Pass	D+	11	Acceptable attainment of intended learning outcomes, displaying a qualified familiarity with a minimally sufficient range of relevant materials, and a grasp of the analytical issues and concepts which is generally reasonable, albeit insecure
	D	10	
	D-	9	
Marginal Fail	F1	7	Attainment deficient in respect of specific intended learning outcomes, with mixed evidence as to the depth of knowledge and weak deployment of arguments or deficient manipulation
Fail	F2	4	Attainment of intended learning outcomes appreciably deficient in critical respects, lacking secure basis in relevant factual and analytical dimensions
Poor Fail	F3	2	Attainment of intended learning outcomes appreciably deficient in respect of nearly all intended learning outcomes, with irrelevant use of materials and incomplete and flawed explanation
Very poor Fail	F4	0	No convincing evidence of attainment of any intended learning outcomes, such treatment of the subject as is in evidence being directionless and fragmentary

What if I experience circumstances which mean I will not be able to complete an assessment?

The Personal Mitigating Circumstance (PMC) procedure gives you the opportunity to inform the College of serious medical or personal circumstances, which you believe, have affected your academic performance in an adverse way before the meeting of the Board of Examiners.

You may have had genuine and unavoidable circumstances that have affected your performance in coursework. These circumstances may have prevented you from being assessed or from submitting coursework on time. In all cases, it is important that you contact the HELM team at HELMinfo@blackpool.ac.uk to say that you are having difficulty completing work and are planning to apply for PMC.

A Personal Mitigating Circumstance Application Form must be completed by you and is available via the College website / Student Administration / Reception. It is your responsibility to complete and submit the form to the HE Student Administration Manager within 10 days of the assessment deadline.

You cannot request an extension to the assignment deadline date. Assignments must be handed in as soon as possible even if they are incomplete. If your PMC application is approved, you will be given an amended deadline and the opportunity to improve your work further.

For full details of this procedure please refer to: <http://www.blackpool.ac.uk/he-regulations>

What if I miss a deadline?

Managing your time effectively is a key graduate skill and you are therefore encouraged to plan your programme workload alongside your other commitments. If you fail to meet an assessment deadline, it will be penalised. Work submitted up to three days late will receive a penalty of one full grade and zero (non-submission) thereafter.

Deadlines are normally set on Mondays and Fridays to avoid the third day occurring at a weekend. Where the third day does fall on a weekend, students will have until 10 am on Monday to hand in without receiving further penalty. The penalties associated with the late submission of percentage coursework are outlined in the academic regulations for your programme.

For more information, please refer to: <http://www.blackpool.ac.uk/he-regulations>

What happens if I fail a module?

Most students pass their work, but if your mark for an individual module is less than the minimum pass grade you will be referred on that module. This means that you will have to be reassessed in the relevant work, however a second attempt will be subject to a penalty as specified within the academic regulations for your programme.

Where Personal Mitigating Circumstances are approved, this will typically prevent any penalties being applied and usually allow the work submitted to be marked as a first attempt.

Moderation

All work that you submit for assessment is marked by your module tutor. A suitable sample is then selected to be moderated by another tutor. This is to ensure that the mark awarded is reliable and not just the judgement of one marker. All of the work you submit is retained by the College to assist our external examiners in the quality assurance of your programme. This may mean that the results you receive during the year may change and should therefore be considered provisional.

External Examiners

Every higher education programme has its own External Examiner whose role is to support the academic staff team in ensuring that the standard of your programme of study is comparable to other programmes in that subject discipline. The External Examiner will confirm that the work that you have produced is of a standard that is expected and identifies any issues that the academic staff team needs to take into account to continually improve the programme. The External Examiner also feeds back on the key strengths that make your programme a really effective and valuable learning experience.

External Examiner reports for your programme can be requested by emailing highereducation@blackpool.ac.uk

Board of Examiners

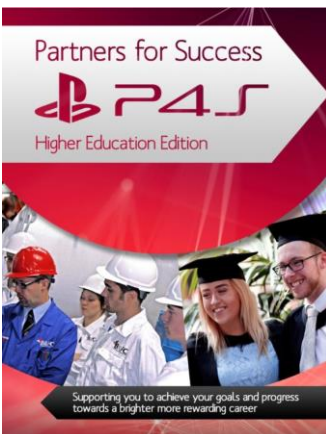
Once a module is complete, the marks for all assessments are compiled together to create an overall module mark.

The module board of examiners sits at the end of each semester to consider modules in scope. Your overall marks for the year are considered by a programme board of examiners that will make recommendations regarding your progression between levels, reassessment and eventually the award of your qualification. The majority of programmes within the college run an academic year between September and June. Reassessment work will therefore normally be completed during the summer months and submitted by the end of July (the precise date is set by the board).

The board of examiners sits again prior to the start of the next academic year in September where the results of any summer reassessment work will be considered.

Where programmes fall outside of the standard academic year, the timing of the board identified above may vary, however the general process remains the same.

PARTNERS FOR SUCCESS



The Partners for Success framework has been developed from our considerable achievements and successful review outcomes in supporting students and ensuring that they are provided with the best possible opportunities to engage fully with their learning experience and the full life of the college. It outlines how staff, students and the wider college community work to provide a seamless network of support to enable all students to achieve their potential.

Studying at University level can mean quite a life change, particularly if you have to move away from home, juggle study with work or have caring responsibilities while studying. You may also be returning to study after a period away and feel unsure exactly what to expect. Most students new to higher level study also comment on the fact that it can be quite different to their previous studies.

Our central aim is to enable all students to become confident and competent independent learners and achieve to the maximum of their potential through the development of their academic skills, personal well-being, literacies and professional employability attributes.

- We will work in partnership with all stakeholders, students, staff and others to ensure and assure personal change and development through mutual expectations, mutual agency and clear communications.
- We will provide students with a network of support to enable their development and achievement of their personal, academic and professional goals

Key partners in your success are:

- Your Progress Tutor and the programme delivery team
- Careers team

- Student Support and Wellbeing including HE Learning Mentors (HELMS)
- Learning Resource Centre teams
- Student Union
- You!

Your Progress Tutor and the programme delivery team

Here at Blackpool and the Fylde College every student is entitled to receive tutorial support on their programme of study. Tutorials are an important learning activity; they give you the opportunity to engage in dialogue with your tutor on matters of academic progress as well as personal and pastoral issues which may impact on your learning experience.

The benefits of tutorials are that they help you to individualise your learning on programme and to receive constructive feedback on your work specifically and progress generally. Tutorials are an essential component of the B&FC Partners for Success framework which aims to enable your personal and academic development, and maximize your opportunities for success, through coordinating the range of support services available to you through your progress tutor. Tutorials can help you to critically engage with your subject in a way that you may not be able to do in lectures and other forms of learning. Your tutors will encourage creativity and originality of thought that will help you to gain a better understanding of the subject discipline helping you to achieve your potential and experience high levels of success.

You can ensure that you get the most out of tutorials by:

- Proactively seeking out information before the tutorial to prepare yourself for the discussion and dialogue
- Actively engaging in discussion with your tutor.
- Using the tutorial opportunity to ask questions of your tutor and engage in critical discussion.
- Receiving feedback and using this to plan your next piece of work or setting personal and academic targets for future learning activities

The Careers Team

University Centre

Located in the Foyer, ground floor, South Building

Tel. 01253 504474

Bispham Campus

Located opposite the main Reception area in the Hub

Tel. 01253 504298

Student Advisors

Student Advisers provide you with confidential and impartial information on a range of areas, and work to matrix quality standard to ensure excellence of support, advice and guidance to all our Students and prospective Students. Quick-query interviews usually last approximately ten minutes. For example, you might want to ask about job vacancies, for help with preparing for an interview, or advice on financial assistance etc. If you have a more complex query the Student Adviser will make a mutually convenient appointment with you for a longer interview. Careers Information Advice and Guidance and financial Help Group sessions also take place throughout the academic year.

Student Advisers also provide a drop-in service at all Blackpool and The Fylde College Campuses, so you don't need to book an appointment to see an Adviser.

Financial Help and Support

Student Administration can provide you with information and advice on access to help with transport, childcare and HE bursaries.

The Careers Team can help you if you find yourself in financial difficulties and will also help with advice and guidance regarding student loans.

Accommodation

Our Student Advisers can help you find student accommodation and provide advice on costs, and other expenditure i.e. rent bond, gas, electric, TV, phone, travel etc.

Careers Information, Advice and Guidance

The Careers Team are all highly qualified in careers information, advice and guidance and can help you with UCAS applications for entry to Higher Education, with making decisions about progression to other courses, job application, CV preparation and interview techniques alongside career and further training pathways and opportunities. Our team of professional Student Advisers are available to help you with all aspects of your career planning and decision-making, such as:

- Making decisions about your future career
- Planning your job search strategy
- Curriculum Vitae (CV) writing
- Getting relevant work experience - including volunteering
- Making applications and preparing for interviews
- Researching postgraduate study options

At Blackpool and The Fylde, our careers service extends far beyond helping you to pinpoint your ideal career. The emphasis is on tailoring a 'careers package' to your particular aims and aspirations that gives you the skills and experience needed to make you highly employable from the moment you graduate.

That's why all our degrees have a strong employment focus, with opportunities to try out your chosen career area, learn skills that employers are specifically looking for and practice interview and assessment techniques with representatives from industry. We also run an online job shop, backed up by a highly trained team of staff dedicated to making your career goals a reality.

You may be starting your course already clear about what you want to do when you graduate or you may not be sure at this stage. Our experienced and professional team of careers student advisers offer careers and progression advice to guide you towards making the right decisions about your future. Choose from e-guidance, telephone and face-to-face interviews within a small and supportive environment. We also offer pre-course advice and guidance. Underpinning all of this is a vast range of careers library resources together with access to internet-based resources, video resources and computer-aided guidance packages.

Enhancing your Employability

The opportunity for you to develop your graduate skills and attributes is built into all our courses to ensure you graduate not just with subject knowledge but with the ability to embark on your chosen career and hit the ground running. Our programmes also provide an opportunity to discover more about your chosen career area through visits from external speakers and trips to local employers and industry. Some programmes even contain a workplace learning module, where you'll get to spend time with an employer, putting your knowledge into practice and gaining valuable employability skills at the same time.

Getting Ready to Graduate

About a year before you're due to graduate we will invite you to take part in our graduate employability workshops, covering topics such as making the right career move, effective applications and successful interviews. In addition, local employers run mock interviews and facilitate role-play scenarios for students, which replicate the assessment centre experience for newly qualified graduates. These experiences are vital for developing an awareness of your strengths (and playing to them) and gaining an understanding of what graduate recruiters are looking for. Some of our students have even been offered a permanent position on the strength of them.

Grad Intelligence

B&FC in partnership with **Grad Intelligence** provide you with a Higher Education Achievement Report (HEAR) which will be published when you finish your degree.

An account will be created for you as part of your enrolment and you will receive an email to your student email account from accountregistration@gradintel.com, which will give you instructions on how to activate your account.

There is a range of psychometric tests and other tools available that can help you develop your employability skills. You can also create your own e-CV on the platform and access opportunities to search and apply for graduate jobs and/or further study.

HEAR (Higher Education Achievement Report)

The HEAR provides verified information about your academic and college verified non-degree related achievements.

You will be issued with an updated 'interim HEAR' annually in the summer, and a 'Final HEAR' will be issued when you graduate.

Engage with '**DegreePlus**' to evidence your employability skills and attributes to enhance your future employment opportunities.

DegreePlus awards will give you a head start as you enter the highly competitive graduate job market. Each award captures the additional activities you have undertaken which improve and develop your employability.

Gaining additional qualifications can help you stand out as someone who is passionate about professional development.

More information is available on the VLE.

Student Support and Wellbeing

The Student Support and Wellbeing team offer a range of support tailored to you to promote independence and maximise your potential through a range of enhanced study, mental health and wellbeing strategies.

- Higher Education Learning Mentors (HELMs) email: helminfo@blackpool.ac.uk telephone 01253504494
- Disability Support: email dsainfo@blackpool.ac.uk telephone 01253504494
- Wellbeing self-referral form online at <http://www.blackpool.ac.uk/getwellbeingsupport>
- Wellbeing Support: email general enquiries wellbeingsupport@blackpool.ac.uk
- Support for care leavers, carers and students who do not have contact with their family: succeed@blackpool.ac.uk
- Safeguarding College Hotline 01253 504444 (9am to 4.30pm)

HE Learning Mentors (HELM)

The HELM team can support with aspects of student academic life, from settling into higher education, helping you gain and enhance study and digital skills and creating wellbeing strategies to work as independent learners. Examples of some of the study skills development and enhancement that we offer include:

- Improving your academic writing style.
- Grammar, sentence structure and developing expression.
- Critical and reflective writing.
- Information skills development, such as research, applying theory to your practice / study and referencing.
- Effective study techniques, planning, structuring and polishing assignments, time management and organisation.
- Revision and examination techniques.
- Digital literacy
- Support with Personal Mitigating Circumstances and Interruption of Study to help you get back on track and complete
- Keeping in touch support for Care Leavers, Carers and students with no family support contact.
- Signposting to other Partner for Success services

In addition to individual support, HELMs deliver a range of study and wellbeing skills through workshops including the 'Flying Start' and 'Flying Further' programmes. These are designed to complement the knowledge and information gained from your course. If you wish for the HE Learning Mentors to deliver a workshop for you liaise with your tutor or direct with the HE Learning Mentors team.

For help, advice and information:

- Phone: 01253 504494
- Email: HELMinfo@blackpool.ac.uk
- Drop in: to the University Centre South Building Entrance

SUCCEED is Blackpool and The Fylde College's package for Higher Education care leavers, carers and students who do not have any contact with your family, we can support you.

We offer you help with:

- Finance including application for B&FC Access Scholarship. For further information of all B&FC financial support visit the following link <https://www.blackpool.ac.uk/support/funding/degrees>
- Assignments and exams
- Wellbeing
- Signposting to other services

In addition we offer regular contact, one-to-one support with a named HELM to help you stay on track. For more information on support and eligibility.

For help, advice and information:

- Phone: 01253 504494
- Email: Succeed@blackpool.ac.uk
- Drop in: to the University Centre South Building Entrance

Disability Support

We understand everyone has different needs and some students with disabilities, sensory loss, learning differences, medical and/or health conditions (including mental health) or Autistic Spectrum conditions may need additional support to get the most out of College life. Student Support and Wellbeing offer a range of support tailored to you to promote independence. We work closely with your curriculum teams, supporting accessibility and inclusion.

There is specialist support available to help you succeed at studying with your declared condition. If you are able to provide evidence from a suitably qualified professional (please see below for examples), Exam Access Arrangements and support via the Disabled Students' Allowances (DSA) can help reduce many potential barriers.

Conditions and evidence required

Disabilities or long-term health condition

A photocopy of a report or letter from your doctor or consultant - you can also fill in the [disability evidence form from your Funding Body \(PDF, 65KB\)](#)

Mental-health condition

A photocopy of a report or letter from your doctor or consultant - you can also fill in the [disability evidence form from your Funding Body \(PDF, 65KB\)](#)

Specific learning difficulty like dyslexia

A photocopy of a 'diagnostic assessment' from a practitioner psychologist or suitably qualified specialist teacher

Support with gaining diagnostic evidence

If you do not have medical evidence of your condition, or a report available, we can offer advice on how to obtain this and in most cases provide funding.

If you are moving locally to Blackpool for the purpose of your study, you may want to consider temporarily transferring your health support to ensure cover for medication/prescriptions and referrals to local support groups. To find a local GP you can use the national NHS link <https://www.nhs.uk/Service-Search/GP/LocationSearch/4>

Disabled Students' Allowance

DSAs are Student Finance grants that pay directly for extra Assistive Technology and Specialist Support (out of class) that may benefit you as a direct result of your medical/health condition. Visit the [DSA pages](#) on the UK Government website to learn more about the application process.

B&FC offer (subject to eligibility) the Advantage Bursary or hardship funding to cover the £200 contribution cost of a computer as part of the DSA.

Examination Arrangements

Exam Access Arrangements are pre-examination adjustments put in place for you based on your individual need, for example, readers, scribes, rest breaks. You will need to refer yourself to Student Support and Wellbeing for exam access arrangements for approval prior to your exams.

Final dates for evidence to be received and assessed for exam access arrangements:

Semester One exams- 31/10/19

Semester Two exams- 28/2/20

General Support

Campus Access:

Visit [AccessAble](#) website for access information for our campus sites. This includes details of B&FC facilities.

Wellbeing Support

The Wellbeing Service at Blackpool and The Fylde College offers a wide range of support, including wellbeing and short term counselling appointments, interactive workshops and support to access self-help resources.

To access support from the wellbeing team, please complete the wellbeing referral form.

Responses to this form are monitored twice a day (9-4pm) from Monday to Friday during term time.

Please note that this is not an emergency service. If you are concerned about your safety or the safety of someone else call your **GP**, **NHS 111** or attend **Accident and Emergency** at Blackpool Victoria Hospital.

Visit the [Wellbeing area](#) on the VLE for more information and guided self-help.

Visit the Contemplation rooms for quiet meditation, prayer or just 'time out'.

The Contemplation rooms can be found at:

- Bispham Campus - C307 - Third Floor Room - Cleveleys Building
- University Centre - SB130 - Second floor Room - South Building
- Fleetwood Campus- Room A33 Ground Floor- Halls of Residence
-

To use the contemplation rooms, visit the main campus reception and sign for the room key.

For help, advice and information:

- Phone: 01253 504494
- For general enquiries please email wellbeingsupport@blackpool.ac.uk
- Drop in: to the University Centre South Building Room 26c)

Need help now?

B&FC Safeguarding - If you feel unsafe or at risk at College contact your tutor or the Student Direct Safeguarding College Hotline: 01253 504444 (9am-4.30pm). If you require advice or assistance about disclosing a safeguarding concern you should discuss this with your Progress Tutor or any member of staff.

If you feel you are at risk of harm to yourself or others and need immediate help, contact the National Health Services (NHS) such as your GP or alternatively ring 111 as soon as possible, if you are in an emergency situation ring 999 or go to Accident and Emergency (24 hour) Victoria Hospital Whinney Heys Rd, Blackpool, FY3 8NR and request a mental health assessment.

Alternatively go to your nearest Walk in Medical Centre:

- Whitegate Health Centre, Blackpool, FY3 9ES
- Fleetwood Health & Wellbeing Centre, FY7 6HP

Need to Talk?

Support is also available externally from the following organisations:

Mental Health Helpline Freephone 0800 915 4640. <http://www.lancs-mentalhealthhelpline.nhs.uk>

Samaritans (24 hour) Freephone 116 123 <http://www.samaritans.org>

HOPELINE - Call: 0800 068 4141, Text: 07786209697 or Email: pat@papyrus-uk.org (10am – 10pm weekdays, 2pm – 10pm weekends and bank holidays)

LEARNING RESOURCE CENTRE TEAMS

Whichever campus you study on, the Learning Resource Centres (The Loops) will play an important part in your studies. Our flexible learning spaces can provide you with a mixture of computer, group work and quiet study areas. You should make maximum use of this facility to log-on to a PC, access printing and copying facilities or ask the Resource Advisers for help and advice.

You will have access to a wealth of information through a wide range of physical and online resources such as e-books and full text journal databases giving 24/7 support for your academic work. Our online search tool Discovery is available for you to search for high quality, relevant journal articles to support your studies. Our online catalogue - <https://libcat.blackpool.ac.uk> - is also available 24/7 allowing you to check reading lists, reserve titles, renew borrowed items and provide direct links to the titles in our extensive eBook library. We can also provide material from other libraries through our inter library lending scheme.

Our teams are always happy to offer help and advice. They have in-depth knowledge of your subject area and can support you in finding good quality research material, as well as developing your IT and research skills through one-to-one sessions. Interactive support materials are available through the Learning Resources area on the virtual learning environment. More information about The Loops, including the opening hours for each centre, can also be found on the [college website](#)

Term time opening hours

The Loop at UC

Monday – Thursday 8.30 – 21.00

Friday 8.30 – 17.00

Saturday 10.00 – 15.45

Email: CentralLoopLRC@blackpool.ac.uk

Telephone: 01253 504414

The Loop at Fleetwood

Monday - Thursday 8.15 – 19.45

Friday 8.15 – 17.00

Saturday 10:00 – 15.50

Email: lrcfle@blackpool.ac.uk

Telephone: 01253 504714

The Loop at Bispham

Monday – Tuesday 8.30 – 17.00

Wednesday 8.30 – 20.00

Thursday - Friday 8.30 – 17.00

Email: lrcbis@blackpool.ac.uk

Telephone: 01253 504290

Self-issue / return facilities are available in the Bispham, Fleetwood and University Centre Loops. There are drop-in IT-based facilities with networked computers (including Macs in the Loop at UC) and wireless laptops, colour printing and scanning facilities. In addition, the Loop teams can help you get connected to the Wi-Fi and other college systems. Help with IT issues is available through an online HelpDesk.

You can access computing and copying facilities at any campus, if this is more convenient for you when engaged in independent study, but the majority of course specific materials will be located in the Loop on the campus where your course is based.

You will find the essential texts for your course available in the library stock and these are regularly updated. Relevant journals and online resources are purchased on an annual basis. For all Higher Education courses you will have access to online reading lists via the Keylinks software. These online reading lists directly link you to the core eBooks and print resources in the library catalogue, thus enhancing their accessibility.

Following an initial Welcome Tour of your local Loop, your tutor will arrange for us to work with you in follow-up in-depth sessions on key skills such as effective searching of online resources and referencing. Induction sessions are also provided at the start of your programme to help you find your way around technology in the college. Additional one-to-one tutorials are available to all students. LRC support is supplemented by a range of interactive resources on the VLE..

The services provided by the Learning Resources Centre will be an integral part of the Induction Programme for this course.

Information Technology Resources

Being able to access resources and materials to help you on your course when you need them is very important. Our virtual learning environment, and contains lots of key information about your course and is accessible 24:7. As part of your induction we will make sure you are able to make the most of this resource.

As a student at Blackpool & the Fylde College you will be provided with a web-based Microsoft Office 365 account. This account provides anytime, anywhere access to a suite of Microsoft programmes including Outlook email and web-based versions of Word, Excel and PowerPoint. You also get access to your own online storage area so you can download, edit and save your college work wherever you are.

Included in your Microsoft Office 365 account is access to our MyDay portal. The portal provides you with access to your calendar (including timetables), email and links to the VLE and eTrackr. Timetable data is updated every hour so you can see all room changes. It is accessible from a web browser and as a mobile device app on Apple and Android devices. MyDay will be launched automatically whenever you login into a College desktop computer.

To find your course materials, log-on to the VLE, the College's virtual learning environment. The VLE contains lesson notes, multimedia materials, quizzes, forums and lots of different tools to help you achieve your academic goals. You may submit your assignments through the VLE and receive online feedback from your tutors. The VLE also provides easy ways for you to communicate with your tutors and fellow students using messaging, chat rooms and forums. You can access your Office 365 and VLE accounts by logging into one simple webpage MyDay which also contains useful college information, news and links:

<https://blackpool.mydaycloud.com/dashboard/home>

Induction sessions are provided to all students at the start of their course to help you find your way around technology in the college. 'The Loop' LRC's are located on each campus. You can pop into The Loop and log-on to a PC, access printing and copying facilities or ask the Resource Advisers for help and advice.

STUDENT UNION

The Students' Union (SU) at B&FC is *your* union. It's made up of students that *you* elect each year, who listen to the student voice and respond to *your* wants and needs. The SU represents students on a range of issues, including equality and diversity, education and social activities, with the aim of ensuring your time here is as interesting and enjoyable as possible.

As a student at Blackpool and The Fylde College, you are automatically free members of the Students' Union and you are encouraged to play an active role. Our Students' Union is actively engaged in student affairs at local and regional levels so there are opportunities for you to become involved in various campaigns and fund-raising activities. Our aim is to work for the good of the student community and to take an active interest in the development of all students. As such the Union represents the students on a number of academic and College committees where student involvement and comment is welcomed.

The Union provides the framework and financial backing for students to organise trips and events, which can be a great way to broaden your interests and meet new people. With a wealth of information, our Students' Union can also advise you on places to go and things to see and do.

If you need to get in touch, you can contact your Student Union Sabbatical Officer by phone or email.

B&FC Student Union Sabbatical Officer

Tel: 01253 504 517

Email: studentsunion@blackpool.ac.uk

BEING A PARTNER IN YOUR OWN SUCCESS

Higher education is as much about personal change and development as it is about subject knowledge and skills development. By facilitating your development we enable you to take responsibility for your own learning. Students who are fully informed about the opportunities available to them, but who are also aware of their responsibility to engage with those opportunities, are more likely to make effective use of services and resources (QAA Quality Code Chapter B4). It is important that you take advantage of every opportunity to facilitate your success, and to creatively engage with the knowledge you encounter, constructing and reconstructing your own understanding. We will support you to set clear goals, reflect on your progress and develop key graduate skills.

ABSENCE REPORTING

If for whatever reason, including ill health, you are going to be absent from College then you will need to ensure that you make contact with us to discuss how we can support you. This is particularly important if your absence could have a significant effect on your assessment requirements. Should this be the case then you will need to consider the College Personal Mitigating Circumstances procedure the full version of which is available at the link below.

<https://www.blackpool.ac.uk/he-regulations>

Any personal mitigating circumstances, such as ill health, which may have affected your studies or performance in assessments and examinations, would need to be submitted to the HE Student Administration Manager mitigating.circumstances@blackpool.ac.uk formally by you with supporting evidence, e.g. a medical certificate, following the procedures and in accordance with the deadlines laid down in the College's Personal Mitigating Circumstances Policy.

In the event that you are unable to attend an examination because of illness or other unforeseen circumstances, you must immediately inform your programme leader before the start of the examination. If you are absent from the whole or part of an examination because of illness, a Personal Mitigating Circumstances application form together with a valid medical certificate or other appropriate independent documentary evidence must be forwarded to the HE Student Administration Manager normally within ten working days of the examination.

STUDENT IDENTITY CARD

You must wear your ID badge at all times whilst on College premises. Access to College facilities is dependent on Students having their ID badge. You will also be asked to show your ID badge when sitting exams. You will be challenged if you are not wearing your badge when on College premises. This is to help students and staff feel safe in College.

FOOD ON CAMPUS

When you want to take a break for refreshments on campus, you're well catered for. At the University Centre's Central Hub refectory, **Café Grads**, you can sit down and tuck into a proper meal or just grab a bite and relax in one of the chill-out areas. A **Starbucks** outlet has also just opened in South Building.

A similar-style refectory, **Retreat**, is available at our Bispham Campus or if you fancy a little treat there is also a range of freshly made sandwiches and smoothies in the **Grab and Go** and a **Starbucks**. At the Fleetwood campus the **Refectory** offers traditional breakfast, a wide range of hot food, sandwiches, snacks and beverages. Visit <http://www.blackpool.ac.uk/facilities/shops> for more information. At all our campuses, there are also plenty of vending points providing snacks on the go.

Get off to a great start every morning! All Blackpool and The Fylde College students are entitled to a free healthy breakfast.

SPORTS FACILITIES AND COLLEGE TEAMS

Sports facilities are mainly based at the Bispham Campus where there is a sports hall, an all-weather floodlit sports pitch and a well-equipped gym. Our Fleetwood campus has sports facilities. We have numerous College teams, both men's and women's, with other available sports ranging from volleyball and five-a-side football to table tennis and canoeing. To find out more ask your progress tutor.

ENRICHMENT

Enrichment is about providing you with opportunities to bring your learning to life, developing your range of interests, meeting new friends and growing as a person. Some activities will be related to your area of study whilst others may not be directly linked. More information is available in your Partners for Success Guide; via the Students' Union and through your progress tutor.

Curriculum-based activities

Whilst studying your chosen subject at College, you will have the chance to see how your subject works in real life and apply that insight to your studies. We also aim, during your programme of study, to develop your employability skills and interview techniques. To provide this valuable enrichment, your programme may feature such activities as guest speakers, trips into industry and overseas visits, 'real life' assignments, competitions, work experience and work placements (some of which can lead to permanent positions).

Extra-curricular activities

College is also as much about the social side as it is about learning. At Blackpool and The Fylde College we offer a vast range of activities, from discounted theatre trips to lunchtime sports activities and book club. Activities are free to everyone enrolled on a course and in most cases, there's no need to book. For more information about what's on check your Partners for Success Guide; visit the Students' Union website or speak to your progress tutor.

Fee-based activities

For those of you who wish to engage in a further range of activities there are fee-based sports activities.

The Enrichment Team can also organise one-off fitness activities, such as trips to Manchester's Chill Factor for skiing or outings to Grizedale Forest for mountain biking. For more information please visit the Students' Union website or contact the Enrichment Team on 01253 504134.

GETTING INVOLVED IN THE QUALITY OF YOUR PROGRAMME

At Blackpool and the Fylde College we believe that you are a member of our higher education and College community and as such your views and experiences are extremely important to us. We want to work in partnership with you to ensure that your experience is the best that it can be both for you and others who study with you. To this end we work hard to engage all students in dialogue about the quality of their learning experiences. You can engage by providing useful feedback on your experiences of modules through Module Evaluation Questionnaires, through being an elected course representative attending student forums and college meetings and through surveys such as the Post-induction survey and the National Student Survey (NSS).

ACADEMIC APPEALS

An academic appeal is a procedure which allows you in certain circumstances to ask for a review of a decision relating to your academic progress or award. You can ask for a review of a decision by one of the following:

- A Board of Examiners, both Module and Programme Boards.
- A Personal Mitigating Circumstances Panel
- An application to the College
- An Academic Malpractice Panel

It should be noted that students may only appeal against a decision if they can show that they satisfy one or more of the grounds detailed in the academic regulations. The appeal process cannot be used to challenge academic judgement or appeal simply because you disagree with the marks you have been given.

An academic appeal is different from a complaint so appeals and complaints are looked at under different procedures. A complaint is dissatisfaction about the provision of a programme or academic service or facility or any other service provided by the College.

Students studying either a:

- **Blackpool & The Fylde College Programme**
- **Lancaster University Validated Programme**
- **Liverpool John Moores Validated Programme**
- **Scottish Qualifications Authority Programme (SQA Higher National)**
- **BTECHigher National Programme**

To lodge an academic appeal, you must do so by submitting your appeal within 10 working days of the publication of your results or decision of a panel either by writing to the HE Academic Registrar, Bennett Avenue, Blackpool, Lancashire, United Kingdom, FY1 4ES or by email to: appeals@blackpool.ac.uk

The Academic Appeals regulations and application pro-forma can be found on The Blackpool & The Fylde College website <https://www.blackpool.ac.uk/he-regulations>

COMPLIMENTS, COMPLAINTS AND FEEDBACK

Blackpool and the Fylde College welcomes feedback from all its students and is committed to improving the quality of the services it provides; we are committed to openness and transparency by providing well publicised and accessible information on how to give feedback or make a complaint.

Compliments, complaints and feedback will be dealt with courteously, fairly and objectively.

We hope that you will never have cause to do so but if you wish to raise a complaint (or you wish to compliment us or provide feedback) please take a look at our Compliments, Complaints and Feedback Procedure which is located on our website here: <https://www.blackpool.ac.uk/college-policies>

GRADUATION

Our annual higher education awards event is a spectacular occasion, representing the culmination of masses of dedication and hard work, and the gateway to an exciting and rewarding future. The graduation ceremonies will take place at the Winter Gardens and Opera House, 97 Church Street, Blackpool, Lancashire, England FY1 1HL.

Your graduation day may seem a long way off now, but you will be there quicker than you think! Blackpool and the Fylde College's Awards Ceremonies are a part of the celebration of your achievement and we hope you will be able to attend. You will need to budget for the cost of guest tickets, academic dress and photography. Awards Ceremonies are held each year at the Winter Gardens. If you attend the Awards Ceremonies we publish the names and awards of all graduates in the Awards Ceremony booklet and in a graduation supplement in the local press. If you do not wish your name to appear, you must contact Student Administration to inform us. We will print the name we have recorded for you on your degree certificate, so it's important that you tell us in advance of any spelling or other changes. After we have printed the certificate we will not be able to change it for you.

This is a very special day for all our graduates and their friends and families and is a marvellous opportunity to share and celebrate your academic achievement and accomplishments.

MODULE OUTLINES

The following module outlines provide you with a brief overview of the modules and their contents, together with the intended learning outcomes.

AUT301: Automotive Mathematics Level 3 - Mandatory

Module Abstract

This module develops mathematical principles and aims to broaden students understanding of mathematics. The content strongly supports development and promotes interest and understanding. All calculations will be applied to motor vehicle applications wherever possible.

Students will initially tackle problems with concrete solutions moving on to more abstract problems as they progress through the module. Problems will be solved with and without the use of calculators, to develop their understanding of basic principles and gain confidence with mathematical tasks.

The module will build on secondary education and provide a progression route to qualifications at Level 4.

Learning Outcomes

- 1 Apply advanced number techniques to Automotive problems
- 2 Solve problems involving non right-angled and complex triangles
- 3 Solve simultaneous and quadratic equations
- 4 Apply statistical techniques and interpretation of data techniques

Indicative Content

Advanced number techniques

keys and main functions of a scientific calculator; indices, standard form, BODMAS, and trigonometry functions number systems used in engineering. e.g. base 10, base 2 (binary), base 8 (octal), and base 16 (hexadecimal); decimal numbers binary coded, decimals; convert simple decimal numbers to binary, octal and hexadecimal

laws of indices; multiplication, division, negative, power of zero, decimal indices, roots, Recognise series or progressions of numbers; geometric progressions, vehicle gearbox ratios;

Inverse trigonometric ratios

trigonometric ratios to calculate angles of a right angle triangle.

sine rule i.e. $a/\text{Sine } A = b/\text{Sine } B$ to solve triangles when one side and two angles are known or when two sides and one angle are known; cosine rule i.e. $a^2 = b^2 + c^2 - 2bc \cos A$ to solve triangles angles of a crankshaft and connecting rod, and piston displacement together with Pythagoras theorem

Simultaneous and quadratic equations

Simultaneous equations by elimination

Module Abstract

This module develops and broadens the aspects of motor vehicle science at level 3. It covers the aspects of vehicle science that relate to engine and vehicle performance.

The aim of the module is to develop students' knowledge of advanced vehicle science, to develop their ability to interpret technical information, enhance their diagnostic skills and improve their understanding of the technical features found on modern vehicles.

To promote interest and assist learning, the content will be delivered in the context of motor vehicles and be related to other appropriate vehicle technology modules where appropriate. The module will provide a progression route to further study at level 4.

Learning Outcomes

- 1 Solve problems involving engine performance including torque brake power, specific fuel consumption, mean effective pressure and indicated power
- 2 Explain the general gas law with application of equations to solve expansion and compression problems
- 3 Determine tractive effort and resistance with calculations related to vehicle performance
- 4 Apply angular motion calculations to vehicle related problems including centripetal force

Indicative Content

Engine torque, brake power and specific fuel consumption

Dynamometer, torque and brake power; Conversion of W to other units; torque formula and brake power formula; Measurement of brake specific fuel consumption; units for specific fuel consumption litres/kW hour or g/kW hour; typical performance curves for brake power, torque and specific fuel consumption.

Mean effective pressure and indicated power

Basic principle of PV diagrams, typical pressure/volume diagrams - Otto, Diesel;
Find indicated mean effective pressure from PV diagram; units of power, pressure;

Engine mechanical efficiency; brake thermal efficiency; heat energy, fuel efficiency; thermal efficiency of an engine; general gas law equation, standard temperature and pressure; convert pressures and temperatures to absolute units;

Isothermal and adiabatic compression and expansion of gases with respect to Boyle's law; the specific heat capacities of the gas at constant pressure and constant volume; the compression and expansion of gases.

AUT303: Automotive Manufacturing Level 3 - Mandatory

Module Abstract

Students will have the opportunity to research and identify how modern vehicle manufacturers have grown in size, where they began and how they wish their company to operate in the future.

Students will have the opportunity to discover a manufacturer's most up-to-date manufacturing techniques and technologies and further discover their areas of research and development and how they intend to implement these technologies to keep their share of the vehicle market.

Students will identify how the company operates and some of their key vehicles and how they are successfully manufactured.

Learning Outcomes

- 1 Identify the history, growth and customer base of a major vehicle manufacturer
- 2 Describe the implementation of manufacturing techniques to address issues relating to material selection
- 3 Link manufacturing success and reputation to their range of products and services
- 4 Describe how a manufacturer has met the needs of their consumer market
- 5 Discuss how a vehicle manufacturers have address their future markets with the implementation of up to date technology

Indicative Content

History of vehicle manufacturing
Manufacturing techniques
Vehicle products and services
Consumer markets
Future markets
Manufacturing technologies

AUT401: Automotive Powertrain Fundamentals Level 4 - Mandatory

Module Abstract

This module teaches the student the innovative features that have helped develop the engine and transmission systems in modern motor vehicles.

With a sound understanding of the basic theory and terminologies used in engine and powertrain systems, students will begin to study more advanced content such as; Fuel economy, performance characteristics and power requirements.

An in-depth analysis of engine and transmission components allows the future engineer to make correct decisions on design applications.

This module is the foundations for the students progression to further study at level 5.

Learning Outcomes

- 1 Identify and understand components, strip, and measure and rebuild an internal combustion engine to set tolerances and study the effects of normal and abnormal operation of SI and CI engines
- 2 Describe how volumetric efficiency is produced and how it impacts on performance
- 3 Evaluate improvements and disadvantages to engine performance by the means of forced induction
- 4 Explain the combustion process and abnormal combustion
- 5 Calculate gear, final drive and wheel torque and speed
- 6 Identify and evaluate automatic and manual gearbox systems and their components
- 7 Identify and evaluate final drive and differential components

Indicative Content

Volumetric efficiency
Forced Induction
Cylinder head design and augmentation
Combustion processes
Fuel types and sources
Emissions
Legal requirements and regulations
Abnormal engine operation
Component identification and functional analysis
Transmission systems, components, gear ratios, final drive
Transmission of power to road wheels
Differentials
Engine torque, gearbox torque, differential and wheel torque
Performance attributes losses and efficiencies
New technologies and innovative features
Clutch mechanisms and components

AUT402: Automotive Composites Level 4 - Mandatory

Module Abstract

Students will have the opportunity to research and identify how the implementation of carbon fibre into vehicle manufacture has revolutionised how vehicle designers have addressed design issues relating to weight, fuel efficiency, design capabilities and speed of manufacture, as well as identifying the strength and longevity of carbon-fibre in terms of being an integral part of contemporary high performance vehicle design.

Learning Outcomes

- 1 Explain the areas of a vehicle where carbon fibre and other composites are currently employed
- 2 Discuss and make comparisons between carbon fibre and another contemporary material employed to manufacture vehicle chassis
- 3 Identify the weight saving implications of employing composites
- 4 Identify how composites has impacted upon fuel efficiency

- 5 Discuss the manufacturing techniques that are employed to effectively implement carbon fibre into vehicle manufacturing
- 6 Examine relevant joining processes throughout the manufacturing process

Indicative Content

Carbon fibre characteristics
Carbon fibre deployment
Material comparisons
Vehicle body design
Vehicle chassis design
Impact on vehicle performance
Vehicle manufacturing processes
Vehicle joining methods

AUT403: Vehicle Body Design and Crash Test Technology Level 4 - Mandatory

Module Abstract

Modern vehicles have been developed with different types of materials and composites, with safety at the forefront of the design.

This module introduces students to engineering materials and how they are utilised to improve safety in the modern road vehicle with regards to impact and crumple zones.

The automotive industry demands that vehicles are designed to achieve optimum safety at all times. This module will enable students to develop the skills to work as a Safety Engineer in research and development within an automotive design setting.

Learning Outcomes

- 1 Identify safety zones within crash structures
- 2 Explain the distortion and dynamics of safety zones during impact
- 3 Identify materials and determine appropriate selection for crash structures
- 4 Calculate forces within an impact with regards to safety zones
- 5 Determine driver and passenger cabin safety measures
- 6 Determine appropriate safety zones with regards to occupant ergonomics within the passenger compartment

Indicative Content

Crash, crumple and safety zones
Engineering Materials – Metals, Alloys, composites, laminates including strength, stresses and impact properties
Material selection, cost and impact on manufacturing techniques
SRS systems incorporating driver, passenger, curtain airbags, steering column and collapsible pedal boxes
Cabin occupant ergonomics
Development of safety systems

AUT404: Engineering Mathematics 1

Level 4 - Mandatory

Module Abstract

This module develops mathematical principles and aims to broaden students' understanding of mathematics. The content strongly supports development and promotes interest and understanding; all calculations should be applied to motor vehicle applications wherever possible.

Students should solve problems in each topic, both with and without the use of calculators, to develop their understanding of basic principles and gain confidence with mathematical tasks. The module will provide a progression route to qualifications at Level 4.

Learning Outcomes

- 1 Analyse and model engineering situations and solve problems using algebraic methods
- 2 Analyse and model engineering situations and solve problems using trigonometric methods
- 3 Determine distribution of shear force, bending moment and stress due to bending in simply supported beams
- 4 Determine the distribution of shear stress and the angular deflection due to torsion in circular shafts
- 5 Describe the modes of heat transfer and determine heat energy transfer rates in thermal systems
- 6 Solve problems of non-resonant and resonant circuits supplied by a constant sinusoidal voltage
- 7 Describe the methods used for power factor correction and its benefits
- 8 Analyse complex waveforms: synthesis, nature of and effects of complex waveforms on electrical and electronic systems

Indicative Content

Analyse and model engineering situations and solve problems using algebraic methods

Algebraic methods: polynomial division; quotients and remainders; use of factor and remainder theorem; rules of order for partial fractions including: linear, repeated and quadratic factors, reduction of algebraic fractions to partial fractions.

Exponential, trigonometric and hyperbolic functions: the nature of algebraic functions, relationship between exponential and logarithmic functions, reduction of exponential laws to linear form, solution of equations involving exponential and logarithmic expressions, relationship between trigonometric and hyperbolic identities, solution of equations involving hyperbolic functions.

Pascal's triangle and the binomial theorem.

Power series: variable expressed as power series functions, standard series, Maclaurin's series, binomial series, and approximate values.

AUT405: Computer Aided Engineering and Design

Level 4 - Mandatory

Module Abstract

This module develops the skills required for the students to be able to illustrate, annotate, render and present their design ideas.

Theories on technical illustration, 2D, 3D and surface design software will be covered within this

module, offering students the opportunity to obtain experience of a range of high-end, industry-standard design software and develop skills they will use as they progress through the course and next levels.

Learning Outcomes

- 1 Create an approved design portfolio utilising industry standard techniques.
- 2 Design and validate a proposed component design to meet a brief
- 3 Identify the benefits and shortfalls arising from the use of computer aided design software
- 4 Define methods of best practice for design and analysis techniques for development projects
- 5 Effectively transfer data across multiple CAE packages

Indicative Content

Identifying the requirements for technical illustration
Standardisation; creation of project files, documentation, terminology, and file types
Formulation of design trail, Blueprint identification
Basic requirements of design; development and research of idea, sketching, dimensioning, accurate scale drawing, section views, detail views, reference planes and working axis
2D, 3D and surface design software
Rendering and wire frame format Reverse engineering
Manufacturability and validation of design by mathematical research and finite element testing methods
Rendering
Simulation testing
3D printing

AUT406: Vehicle Aerodynamics Level 4 - Mandatory

Module Abstract

Aerodynamics plays a vital role in the performance, stability and handling of a vehicle. Complex, rigorous and extensive testing is utilised to ensure that vehicles exceed predecessor models whilst also conforming to stringent new design criteria such as race regulations or safety imposed design requirements.

This module has been designed to give students an insight into aerodynamics and form a base for much deeper study at an advanced level. The module also introduces the students to an aerodynamic Computer Aided Engineering (CAE) design package where their design and theory can be put to the test.

Learning Outcomes

- 1 Apply vehicle aerodynamic theories to analyse vehicles and components in terms of form and function
- 2 Setup, test and augment a physical component within a scale wind tunnel to improve its performance for a specific purpose and investigate the implications of aerodynamic design
- 3 Create a suitable mathematical algorithm to aid aerodynamic testing using MatLab with Simulink or similar software

- 4 Use industry standard CAE software package to set up, run and post-process a typical aerodynamic simulation
- 5 Analyse test data to identify system features and potential manufacture requirements

Indicative Content

Basic principles of flow; static and dynamic pressure (Bernoulli principle), air as a fluid, temperature, velocity, boundary layer, laminar and turbulent flow
 Industry terms and nomenclature
 Aerodynamic mathematical formulae
 Simulation techniques using MatLab with Simulink (or Excell software)
 Drag reduction systems
 Aerodynamic analysis for economy
 Aerodynamics analysis for performance
 Practical testing utilizing the colleges scale wind tunnel
 Introduction to industry CFD software
 Analysis and verification of 3D modelled designs using CFD simulation software

AUT407: Engine Technologies and Development Level 4 - Mandatory

Module Abstract

This module is designed to give students a deep understanding into the internal combustion engine and its parameters that underpin the design and operation of the unit and all components that are detrimental to its successful operation under a variety of conditions. The aim of the module is to provide a firm foundation and knowledge at an advanced level ready for work in automotive design. Students will make use of the Engine Dynobench and use it as a tool for the research, development and design of new engines and components. The module has also been designed to allow students to experiment with design concepts in a 'real-world' environment.

Automotive research and development engineers need the knowledge and skills to understand how combustion can be controlled by engine mapping. This module has been designed to allow students to experience the skills required to analyse, diagnose and augment these systems.

Learning Outcomes

- 1 Compare and contrast engine intake, combustion chamber and exhaust design
- 2 Discuss engine augmentations and their influence on the engine
- 3 Use a flow-bench to accurately obtain engine data
- 4 Use an engine dynamometer to analyse Engine performance
- 5 Map an Engine Management System to industry standards
- 6 Log and Analyse engine performance

Indicative Content

The combustion process
 Cylinder head, piston, and combustion chamber design
 Flow bench techniques
 Valve train theories
 Engine anomalies and rectification
 Engine anomalies and rectification

Fuel systems

Engine output optimisation and compromises

Extensive engine research and testing

Use of dynobench and test cell to industry standard

Principles of mappable engine management systems

Engine Data Logging and maps

Function and application of EMS theories with regards to setup, performance and efficiency tuning, data logging and histograms.

AUT408: Chassis Performance Testing Level 4 - Mandatory

Module Abstract

A car chassis is the most integral component in the final construction of any vehicle apart from the engine itself. As well as acting as the canvas onto which all of the vehicle's parts are attached. It also provides invaluable structural integrity which prevents the car from collapsing into itself under large amounts of strain.

Students will be involved in simulating an impact, and analysing how the chassis helps protect the driver from their crumpling vehicle. Aside from the air bag and any other safety features, the structural strength of a vehicle chassis is the largest deterrent of more serious vehicle-related injuries.

If the chassis were weakened, it may play a huge safety risk for both the car and its driver. Students will design a variety of realistic chassis that answer automotive safety specifications. Students will then go on to fabricate / manufacture and strength test a variety of chassis designs to identify the potential advantages and disadvantages of each design.

Learning Outcomes

- 1 Identify how different chassis structures have different key strength and safety elements
- 2 Determine the materials and manufacturing techniques employed in vehicle chassis manufacture
- 3 Discuss how chassis are strength tested in a practical setting
- 4 Manufacture a chassis model suitable for strength testing

Indicative Content

Chassis types including integral, semi-integral, space-frame and monocoque

Engineering fundamentals of stress, strain, shear and twists

Strength testing

Safety influences on vehicle chassis design

Key structural elements to contemporary chassis designs

Designing and manufacturing prototypes to address the issues relating to safety and strength testing including material, layout and shape.

Module Abstract

This module aims to give you specific knowledge, skills and understanding required for successful higher education study and engagement with industries related to computing, science or engineering. It will draw explicit attention to the introduction and/ or development of such skills; encourage you to consider your approaches to learning and enable opportunities for discussing multiple perspectives of your subject and wider related issues.

You will become familiar with analysing data sets and examples of practice to produce graphical representations of data. You will develop the strategies and understanding needed to find, interpret and evaluate academic sources, examples of practice and statistical data in order to compare approaches to your subject and form new ideas.

The module will provide opportunities to communicate your developing knowledge and practical application of mathematical constructs both formally and informally, requiring you to express your ideas verbally, graphically, in writing and digitally. Reflection on such communications will involve identifying personal attitudes and skills levels and establishing potential ways to enhance skills needed for the remainder of the course and beyond.

A key focus of the module is the importance of academic practice when communicating your interpretations of subject specific material. Formative and summative activities will provide you with a sound basis for expressing ideas, solving problems and analysing perspectives related to industry in a style and format appropriate for higher education. This will include structuring a written piece of coursework, adhering to standards such as word count, evaluating secondary sources and referencing accurately.

Learning Outcomes

- 1 Find, interpret and evaluate a range of digital and traditional sources to produce written communication that meets academic expectations of higher education.
- 2 Reflect on personal attitudes and skill levels and identify further learning needs to support future studies and enhance transferable skills for employment.
- 3 Analyse data sets to produce graphical representations of data OR analyse a case study to identify and discuss theoretical perspectives, models and research.
- 4 Produce verbal presentations appropriate to audience and level of complexity.

Indicative Content

Academic Writing

- Conventions
- Terminology
- Paraphrasing
- Summarising
- Reports / Essays
- Referencing
- Academic integrity

Ethical Research and Practice

- Confidentiality, anonymity, secure storage, vulnerable participants, netiquette

Secondary Research

- Use of digital and traditional tools for discovery; open access journals
- Referencing and in text citation, plagiarism, reliability and validity of sources
- Comparison, contrast and critical evaluation
- Critical reading and note making

Data Collection

- Working with raw datasets, cleaning and processing
- Spreadsheet tools

Data Analysis

- Statistical analysis Mean, median, mode, standard deviation, correlation
- Accuracy, precision, error and uncertainty
- Reporting data (graphical methods, tabular grouped vs ungrouped etc.)
- Interpreting data (confidence intervals and p values)

Reflective Practice and Writing

- Models of reflection

Critical Reflections

- Academic formality voice / academic, personal and professi

AUT501: Engineering Mathematics 2 Level 5 - Mandatory

Module Abstract

This module follows on from the Engineering Mathematics 1 delivered in Year 1 and further develops engineering mathematical principles.

The module aims to broaden students understanding of mathematics. The content strongly supports development and promotes interest and understanding; all calculations will be applied to motor vehicle applications wherever possible.

Students should solve problems in each topic, both with and without the use of calculators, to develop their understanding of basic principles and gain confidence with mathematical tasks. The module will provide a progression route to qualifications at Level 6.

Learning Outcomes

- 1 Analyse and model engineering situations and solve complex problems
- 2 Analyse regression, linear correlation and confidence intervals to sample the quality of engineering operations
- 3 Investigate static and dynamic engineering systems involving uniform acceleration
- 4 Analyse energy transfer in thermal and fluid systems including viscosity
- 5 Investigate information and energy control systems, including electrical signal conveyance and block diagram representation

Indicative Content

Introduction to calculus: limits, continuity, definition of the derivative, derivatives of standard functions, differentiation of simple functions using the product, quotient and function of a function rule, integration calculus, calculation of area under a curve, the indefinite integral and the constant of integration, standard integrals and the application of algebraic and trigonometric functions, the definite integral. Further differentiation: second order and higher derivatives, logarithmic differentiation, implicit functions, differentiation of inverse trigonometric functions. Further Integration: Integration by parts,

integration by substitution, integration using partial fractions, reduction formulae.

Central tendency and dispersion: variance measurement, mean, median and mode, standard deviation, variance and interquartile range, application to engineering production.

Regression, linear correlation: product moment formula for determining linear correlation coefficient, application to experimental w

AUT502: Major Project Level 5 - Mandatory

Module Abstract

The students will carry out a specific project relating to their chosen pathway. These projects will be carried out on an individual basis. Small group projects may be accepted, provided clear defined roles are apparent. This must be agreed by the module convener.

Learning Outcomes

- 1 Identify an area of investigation relevant to automotive engineering and produce a feasibility study
- 2 Research and collect data to support project aims and outcomes
- 3 Analyse present and communicate results and findings obtained from the outcomes of the implementation, “product” or investigative approach
- 4 Evaluate conclusions and make recommendations for future consideration
- 5 Critically assess the success of the project.

Indicative Content

Research Methodologies
Structuring a Major Project
Feasibility and Literature Reviews
Quantitative and Qualitative data collection
Data analysis techniques
Data presentation
Automotive/Autosport extended enquiry concepts

AUT511: Engine Design Analysis Level 5 - Mandatory

Module Abstract

Design Engineers implement cutting edge technology to realise a project from initial concept studies to integrated analysis of a complete system.

This is made possible with the introduction of Advanced CAE software packages. This module has been designed to give the students an introduction into complex CAE design packages, engine simulation and other ancillary techniques.

This module will be chosen by students on the Automotive path.

Learning Outcomes

- 1 Utilise an industry standard CAE software package
- 2 Design and validate a prototype internal combustion engine to industry standard
- 3 Analyse simulation test data to identify system features and potential manufacture problems
- 4 Correlate real-world data to maximise simulation accuracy
- 5 Compare and contrast engine design and analysis methods in reference of CAE software versus traditional design methods
- 6 Evaluate impact of CAE tools for engine design and analysis within the automotive industry

Indicative Content

Applications software for Automotive Computer Aided Engineering

Design of the internal combustion engines

Combustion process

Cylinder head, piston, and Combustion chamber design

Flow bench techniques

Valve train; valve timing, Inlet and exhaust valve opening and closing periods, valve overlap and limitations, VVT; valve harmonics and kinematics

Effects of camshaft design

Engine balance and vibration, rotating components, centrifugal moment, static and dynamic balance; reciprocating piston and crank dynamics; balance shafts

Induction and Exhaust system requirements, cylinder pressures, mixture distribution

Fuel delivery and spray patterns

Engine efficiency and economy

Engine research and testing

Use of dynobench and test cell to industry standard

Correlate real-world data with simulations

3D CFD modelling

AUT512: Vehicle Dynamics and Data Logging

Level 5 - Mandatory

Module Abstract

Vehicle dynamics is a discipline focusing on the handling and performance characteristics of a vehicle as a complete system. Many disciplines fall within this subject and it is the engineer's job to understand how these systems interact and affect each other in order to apply leading edge design techniques.

Practical skills are required in the area of data logging and data acquisition in order to ensure the data being analysed and compared is accurate to real world applications.

Complex CAE packages and test systems are readily available for all forms of automotive design from manufacturers up to Formula 1.

This module is designed to give the students the necessary skills and knowledge to interrogate and analyse vehicle and driver data in physical or simulation form, with a view to set up, design or improve performance characteristics. This module will be chosen by students on the automotive path.

Learning Outcomes

- 1 Define vehicle dynamic systems appropriately
- 2 Apply appropriate mathematical formulae assess vehicle performance

- 3 Analyse how vehicle systems perform due to design and setup
- 4 Interpret information and carry out informed alterations
- 5 Implement a live test and evaluate performance
- 6 Produce a report and include appropriate conclusions and recommendations based on industry theories and concluding on any practical testing

Indicative Content

Vehicle dynamics systems; tyres, suspension, body, aerodynamics

Axis systems; vehicle and world

Vehicle dynamics formulae; Common nomenclature, governing equations, variables, links and improvements through further analysis (motorsport focus i.e. performance, grip, aerodynamics, stability)

Dynamic theories; longitudinal, lateral, resistances, inputs and outputs, human factors

CAE systems; MSc Adams Software, CFD, MatLab and Simulink, data logging software

Live testing and analysis;

Principles of data logging, sensors and hardware

Acquisition and analysis of data

BFC501-E: Work Based and Placement Learning Level 5 - Mandatory

Module Abstract

This module will provide you with the opportunity to undertake a period of work based learning under the direction of an employer and an academic supervisor enabling you to learn and develop in a working environment. The module will provide you with opportunities to develop an understanding of the key factors associated with working in industry and provide a framework for you to evidence key transferable skills gained in the work setting.

During your work based learning experience you will be expected to undertake a task or project negotiated between you, your tutor and the employer and set in the context of work and industry. Throughout your work based learning experience you will be expected to actively and critically reflect on the range of different processes engaged in for both productive work tasks and the completion of your project/task. It is also vitally important for you to work on integrating your knowledge from a theoretical perspective into a pragmatic work based context, this will support your critical analysis and reflections and help you to review, evaluate and make decisions based on the integration of theory and practice.

Critical reflection is essential for the achievement of the outcomes in this module and a substantial part of the assessment requires you to critically reflect, evaluate and make recommendations for action, a key skill in graduate employment.

To conclude this module you will be expected to design and deliver a presentation which reflects the processes and outcomes of your work based project and will be delivered to a selected audience. This presentation activity will help you develop and evidence your research, communication and organization skills and provides an interactive and fitting conclusion to your work in this module.

This module aims to draw together both your academic and practical development and prepares you for the nature and scope of the demands future graduate employment will make of you. It is an opportunity to combine practical experience with theory and has the potential to support your learning in all other modules on your programme.

Learning Outcomes

- 1 Negotiate and undertake a work based project/task
- 2 Critically evaluate the process and work undertaken
- 3 Integrate theory and practice when proposing solutions and evaluating outcomes in work based settings.
- 4 Present the outcomes of the project to selected audiences.
- 5 Critically reflect and make recommendations to improve both personal and professional practice.

Indicative Content

Principles of Work Based Learning and negotiated projects
Identification of appropriate work based task/project and agreement from employer and tutor
The work based learning contract – roles and responsibilities
Project methodologies and tasks
Project management
Work based competencies
Reflective Practice
Integrating theory and practice
Subject specific sessions will be provided to contextualise the generic WBL content

AUT601: Dissertation Level 6 - Mandatory

Module Abstract

This module is designed to allow students to undertake an individual project or an individual linked part of a larger group project involving the design of a high performance automotive system. It will require comprehensive consideration of an aspect of automotive technology to include investigative, as well as empirical research and the necessary theory to substantiate the content of the dissertation.

Learning Outcomes

- 1 Propose a relevant area of investigation and formulate a research proposal appropriate for treatment by the techniques and approaches developed on the module, relevant to the subject discipline
- 2 Provide a critical review of relevant literature and related concepts to form an effective framework for the study
- 3 Plan and carry out an ethically sound research investigation with limited supervision within which appropriate methodologies and analytical techniques are applied to the investigation.
- 4 Clearly communicate the nature, rationale and outcomes of the enquiry , drawing valid conclusions and/ or making logical recommendations appropriate to the objectives of the dissertation
- 5 Present the dissertation structure, data collection, findings, analysis, conclusions and recommendations in an illustrated academic poster or presentation

Indicative Content

Research Methodologies
Structuring a Dissertation
Literature Reviews
Quantitative and Qualitative data collection
Data analysis techniques
Data presentation
Automotive / Motorsport extended enquiry concepts

AUT602: Dynamic Simulation Level 6 - Mandatory

Module Abstract

The automotive industry is continually advancing and a constant route of progression is the ability to simulate real world scenarios. The development of complex mathematical models allows the engineer to quickly carry out a simulated test of a scenario or design without the time and cost implications of a physical component build.

The need for graduates to demonstrate the ability to apply complex mathematical and simulation techniques is paramount in the current and future automotive industry.

This module has been designed to give the students an opportunity to experience a variety of industry standard simulation packages and test rigs in order to prepare them for the industry they will enter.

Learning Outcomes

- 1 Define optimal vehicle dynamic setup through analysis of systems
- 2 Critically analyse a vehicle with regards to its static and dynamic systems
- 3 Compare and contrast data through practical tests
- 4 Validate designs by means of finite mathematical analysis
- 5 Critically analyse designs by means of industry standard CAE software
- 6 Critically evaluate implications of FEA simulation by means of CAE software

Indicative Content

Theories of vehicle dynamics within industry standard CAE software
Introduction to MSc Adams software critically analysis and design
Vehicle dynamic system; suspension, chassis and full body models.
In depth simulation scenarios
Acquisition of simulation data via practical test
Acquisition of real test data
Finite element methods and analysis
Analysis and validation of physical designs
Meshing
Formulation of mathematical models in 2D and 3D format
Free body diagrams to analyse dynamic scenarios
Validation of designs via mathematical and simulation techniques

AUT603: Alternative Power Sources

Level 6 - Mandatory

Module Abstract

The need for an increase in alternative fuels and power sources within the automotive sector is becoming more apparent as natural resources dwindle and governments continue to strive towards reducing the Carbon Footprints.

Electric / hybrid technologies and downsized vehicles and power plants are commonplace on forecourts as are becoming more accessible to new vehicle buyers due to advances in technology and reduced cost.

This module encompasses new technologies that are rising from the decline in fossil fuel resources.

Learning Outcomes

- 1 Compare the operating fundamentals of modern electric, hybrid electric and fuel cell vehicles and conventional engine platforms
- 2 Define the requirements, importance, implication and advantages of downsizing techniques
- 3 Define the operation of energy regeneration systems
- 4 Compare and contrast first and second generation liquid fuels and bio-fuels
- 5 Critically analyse and evaluate the advantages and disadvantages of electric, liquid fuel and bio-fuel.

Indicative Content

Modern Electric, Hybrid Electric, and Fuel Cell Vehicles: Fundamentals, Theory, and Design
Drive train architecture analysis and design methodologies: Internal Combustion Engine (ICE)-based drive trains; Electric propulsion systems; Energy storage systems; KERS; Regenerative braking
Downsizing applications – the ability of an engineer to create an efficient small capacity forced induction engine with large capacity engine performance characteristics
Fuel cell applications in vehicles; Hybrid-electric drive train design
Simulation of Hybridized/ downsized vehicles using GT-Suite

The first-generation and second-generation liquid fuels and biofuels for powering electric vehicles; fossil fuel replacement, land requirement; greenhouse gas balances and environmental burdens of ethanol; esters derived from fatty acids ('biodiesel'); Fischer-Tropsch diesel and HTU diesel; competing technologies (fossil fuels, increases in energy-efficiency and photovoltaic power) and how they compare to biofuels.

AUT611: Engine Design Simulation and Analysis

Level 6 - Mandatory

Module Abstract

Students studying this module will investigate a number of major scientific principles within engine design. The module will encompass all the main aspects of the industry standard Gamma Technologies GT-Suite computer package. The software and theories applied throughout this module will lead the student towards the cutting edge of the engine design industry.

Annual seminar attendance by teaching staff ensures this module continues to educate the students

alongside current industry standards ready for their integration into employment as a design and validation simulation engineer.

Strong links have also been created with the industry leading company MAHLE Powertrain who have given input as to the industrial suitability of this module. Students can be confident that they are on the right route for their future career. This module will be chosen by students on the automotive path.

Learning Outcomes

- 1 Analyse and assess an existing engine design for a chosen application
- 2 Maintain a high standard of accuracy and provide evidence to show physical understanding of engine design and the use of CAD/CFD software
- 3 Analyse, identify and resolve potential manufacturing and design problems
- 4 Validate engine models with suitable back to back drive cycle testing
- 5 Interface with an industry standard CFD package and analyse flow characteristics within engine components
- 6 Evaluate theories of pressure, velocity and flow characteristics relating to CFD simulation

Indicative Content

Advanced features of GT-suite and design of experiments optimization software
Processing data to diagnose potential problems (GT-Post)
Interface with computational fluid dynamics Computational Fluid Dynamics (CFD) software
Detailed analysis of components and flow
Computational fluid dynamic Modelling and Properties
Boundary Condition Specification
Analysis Controls
Discretisation methods
Post-processing methods
Inter-system communication

ADDITIONAL COSTS

There may be opportunities for field trips to conferences, exhibitions or for other interests. This is done through negotiation as new venues / locations / trips must be risk assessed and approved. There is often room in the budget to subsidise costs so discounted contributions can be made, yet this will depend on many factors, including entry fees / travel.

EQUIPMENT REQUIREMENTS

A minimum of boots and full length overalls (boiler suit) are needed for the workshop sessions. A scientific calculator and A4 note pads will be needed for almost all of the modules that you will study.

For your Level 5 (FD2) and Level 6 (BEng) years it is advised to use a personal laptop or PC at home with specifications that can run the software (software is usually free but may need an application form completing to use). This will be needed for the majority of your modules, but is optional as the college does have high spec PC's for you to use during college hours (limited availability when taught sessions are happening).

1. An assessment of the range of risks to the continuation of study for your students, how those risks may differ based on your students' needs, characteristics and circumstances, and the likelihood that those risks will crystallise

Blackpool and the Fylde College (B&FC) has been providing high quality career focussed education for over 125 years; the risk that B&FC is unable to fulfil its obligations and duties to you is very low because our financial performance is consistently strong. B&FC provides a range of services to a diverse student population and this economy of scale provides security that our financial position presents low to zero risk of non-continuation or closure.

The risk of campus closure is very low because B&FC has a rigorous business planning process that ensures that all our resources are matched against curriculum need. Whatever programme you are studying you can be assured that it is fit for purpose, meets the needs of industry and aims to secure long term sustainable employment. This level of planning and forecasting mitigates any risks associated with course or campus closure. In addition, new courses or those due for refreshing and updating through revalidation, conduct significant levels of market research ensuring curriculum and resources are fit for purpose, informed by employers and are subject to the highest level of scrutiny.

B&FC delivers highly specialised courses including honours degrees, foundation degrees, higher national diplomas and certificates all of these are co-created with employers. The risk that B&FC will no longer deliver courses at a specified campus is very low and as a mixed economy provider our economies of scale provide you with the added security that continuation of study will not be adversely effected.

The risk that we are no longer able to deliver material components of a course is low because courses are designed to be taught by integrated teams of academic staff who have levels of expertise matched against modules and levels, each module has at least two convenors attached thereby mitigating risks of dependency on individual members of staff. The breadth of provision at B&FC, where academic teams may deliver across multiple programmes and levels, provides highly effective continuity of service. This mitigates reliance on individual team members. In some areas where there are highly specialised skills, Marine Biology for example, we engage with a range of professional bodies, The Environment Agency and The Institute for Marine Biology for example, this provides an added layer of security to mitigate against any local skills shortage.

2. The measures that you have put in place to mitigate those risks that you consider to be reasonably likely to crystallise.

In the unlikely event that we were unable to deliver a course at a specified campus, where possible, the provision would be relocated to another campus and appropriate transport would be provided for you to ensure your studies would not be interrupted. The flexibility of our estate makes relocation the most likely and positive outcome.

It may be that over time, a course in a specialised programme may be superseded by newer provision, and together with declining recruitment may need to close. Such instances are anticipated through highly effective curriculum planning and arrangements are made to ensure that all students currently enrolled to the programme continue to receive the teaching and learning opportunities that enable them to succeed. If B&FC were unable to continue to deliver courses in such circumstances, we have a commitment to 'teach out' the existing programme. This means that we commit to ensuring your course of study will be completed within the time scale specified at enrolment.

Many programmes are designed with shared pathways and modular components, this provides enhancements to the student experience and mitigates against the negative impact of small group

sizes. There have been instances where programmes have continued with small group numbers and in these cases the overall student experience has been positively sustained. Highly effective business planning ensures this delivery model is sustainable.

In the highly unlikely event that B&FC were unable to deliver material components of a course in any subject our breadth and depth of academic expertise would enable us to provide secure continuation of study. Our partnership organisations would be an additional support in this regard and would extend our existing highly effective recruitment processes. One of our core values is to place the student at the heart of all we do and this value ensures you are a respected partner in all learning activities.

3. Information about the policy you have in place to refund tuition fees and other relevant costs to your students and to provide compensation where necessary in the event that you are no longer able to preserve continuation of study.

B&FC is in a strong financial position with significant fixed asset values. This means we are a financially stable organisation and in the highly unlikely event of a claim for non-continuation and associated compensation you can be assured that resources are in place to meet our obligations. If you are in receipt of loans from the SLC, in receipt of sponsorship or privately funded, refunds will fall within scope of the policy document attached.

In the unlikely event that significant changes to study locations are encountered, B&FC will provide you with flexible and appropriate arrangements to ensure that continuation of study is not adversely impacted. This may include the provision of bespoke transport arrangements between sites. Where possible a minimum of 5 weeks' notice will be given for any instances of relocation.

B&FC has a well-established bursary package: These are applied for and awarded annually. The eligibility criteria is specified in the link below. There is no precedent, within B&FC, for bursary payments being suspended without fault or breach of the terms and no instances of compensation claims in light of course closure or non-continuation.

The B&FC refunds and compensation policy is available through the College website.

4. Information about how you will communicate with students about your student protection plan

We will communicate the provision of the student protection plan to you and future students through the college website.

All published prospectus materials will include a link to this web site.

For new and existing students the plan will be included in all student handbooks and accessible through the virtual learning environment.

The student protection plan will be communicated to all staff through a programme of HE fora, including bespoke staff development sessions, conference activities and curriculum planning sessions. It will be considered through initial validation and revalidation events. Although B&FC may make improvements and minor adjustments to modules any changes which will trigger the student protection plan must be authorised by the Higher Education Academic Standards and Development Committee acting through delegated authority of the Higher Education Academic Board.

The student protection plan will be reviewed through a range of student engagement groups with formalised feedback from the Student Union. This will be managed through the normal quality cycle where the plan will be a standing agenda item on a Quality Assurance Meeting. This level of engagement will establish a partnership approach to the formation and review of the student protection plan with you as a key stakeholder.

Where possible you will be given a minimum of 5 weeks' notice, in writing, for material changes to your chosen course. The Directorate for Students will provide individualised support through 1:1 meetings to ensure effective support is in place. Heads of Curriculum will be available to support groups of students and the Higher Education Learning Mentors will provide an additional layer of support to ensure academic progression is not adversely affected. A minimum of three individual and two group meetings will be available during any transition period.

Independent advice will be delivered through the Student Union Executive and their elected representatives.

An open and transparent process of review will be conducted annually. Student representation will be managed by the Student Union Sabbatical Officer and the Student Union President with a formal report submitted to the HE Academic Board for consideration. The partnership arrangements already in place at B&FC will add a layer of cooperation to this process.