

Award Programme Specification

Bradford College HE Scheme

1. Awarding Institution / Body	Leeds Metropolitan University
2. Teaching Institution	Bradford College
3. Programme Accredited by	Institute of Materials, Minerals & Mining - IOM3 in partnership with the Institute of Cast Metal Engineers http://www.iom3.org/ http://www.uk-spec.org.uk/
4. Final Award	Foundation Degree in Casting Technology
5. Route Title(s)	
6. UCAS Code	
7 QAA Benchmarking Group(s)	Materials http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/Materials.pdf

General Objectives of the Award

The award conforms with the Bradford College HE Scheme and to its Foundation Degree Route Aims and Objectives.

The Aims and Objectives of the Award are to:

Aims

The aims of the Award are to:

Provide a foundation degree in the area of Casting Technology studies.

Provide a curriculum which develops relevant technical, vocational and key skills.

Develop independent learners.

Widen participation and increase access to higher education from under-represented groups in the local community.

Provide a framework in which employers, employer bodies and providers can collaborate to develop the curriculum.

Contribute to the skill base of Bradford and other local economies in the context of the development of this industrial sector.

Produce capable and well-rounded graduates who will make a contribution to the labour market needs of the local regional and national economies and have appropriate knowledge and skills.

Objectives

- Provide a flexible programme of study that will enable students to identify, acquire and develop transferable skills and knowledge which will enable them to contribute and develop their full potential in this employment sector.
- Prepare students for progression to Level 3 higher education and to further enhance their employability and career development and create opportunities for students wishing to progress from professional courses and in employment.
- Deliver specialist knowledge informed by SSCs and other authoritative bodies in the field and enable students to develop their skills and knowledge through work based learning which is integrated with work-based study, underpinned by knowledge and skills.
- Respond to changes in the local labour market and meet the needs of employers by closing an identified skills and knowledge gap.
- Provide a challenging, employability led curriculum relevant to the needs of the student that reflects the current and projected needs of regional business and corporate clients.

The contextualised aims and objectives specified above derive from the Foundation Degree Route within the Scheme and reflect the particular nature and focus of this award.

9 Award Learning Outcomes

In addition to those of the Route, the award contextualises the generic Scheme and Route learning outcomes as follows:

Level 1 – Knowledge and understanding

On successful completion of level 1 (certificate) students will be able to:

- View their own role and that of their organisation within the changing context of the wider casting technology sector.
- Describe the nature and functions of sector organisations and its interaction with customer needs and organisational objectives.
- Describe and comment upon management tasks and functions.
- Collect, manipulate and interpret data.
- Outline the legal, social and economic responsibilities which affect casting technology sector
- Demonstrate subject knowledge and knowledge of operational practices relevant to castings

Level 1 - Skills and other attributes

Upon completion of level 1 (certificate) students will be able to:

- Apply different approaches to the resolution of technical and metallurgical management related problems.
- Select and apply techniques and methods of practice common to manufacturing industry, where castings are used.
- Communicate in a clear and effective manner on limited and well-defined topics.

Level 2 - Knowledge and understanding

Upon completion of level 2 (intermediate) students will be able to:

- Analyse and evaluate operational systems to improve effectiveness and efficiency within their role in casting technology
- Identify and evaluate models and approaches to engineering and manufacturing processes and their impact on organisational change.
- Acquire the specialist knowledge and understanding required to practice within a broad or specific occupation related to manufacturing operations and management.

Level 2 - Skills and other attributes

Upon completion of level 2 (intermediate) students will be able to:

- Demonstrate a range of key skills including communication, application of number, ICT, team working, problem solving.
- Be able to present, interpret and evaluate quantitative and qualitative data.
- Develop a range of management skills appropriate to the manufacturing engineering and especially the cast metal sector.
- Take responsibility for their own learning and professional development.
- Be qualified to progress to an appropriate Honours programme at Level 3.

This Foundation degree is mapped and matched against the requirements for Incorporated and Chartered Engineer status at Stages I and II, and is built on a progressive development of educational and competence-based knowledge and skills for students who are likely to be in employment.

Professional, Statutory and Regulatory Body (IOM3)

A valued feature of the College's undergraduate and postgraduate provision is the number of degree programmes which are accredited by a PSRB, in our case this is done under the rules and regulations of the Institute of Materials, Minerals and Mining (IOM3) The College aims to ensure that all its programmes which are eligible for IOM3 accreditation, secure and retain the accreditation. This is just one of many ways the College ensures that professional standards and quality are maintained and that students gain the skills and knowledge required by employers.

IOM3 normally accredits a programme for a specific number of years after which they return to review and re-accredit the programmes for the next period. All IOM3 accreditation and review reports are considered at the College's Quality Assurance Committee and monitored by the Board of Governors.

Award structure & requirements, routes, credits, awards, levels, scheme modules.

The award will utilise a number of modules derived from the Scheme and other modules derived from the Engineering Pathway to comprise the award of Foundation Degree in Casting Technology

Award Structure

The award will utilise a number of modules derived from the Scheme and other modules derived from the Engineering Pathway to comprise the award of Foundation Degree in Casting Technology

Level 1	Level 2
Personal Development Planning (2x15) = 30 credit points	Personal Development Planning (2x15) = 30 credit points
Work Based learning (2x15) = 30 credit points	Work Based learning (2x15) = 30 credit points
Core Modules (4x15) = 60 credit points	1 Core award module(1x15) = 15 credit points
	Elective Modules (3x15) = 45 credit points

Student study and career will be enhanced in the level 2 where more optional modules can be chosen

instead of the core modules.

Optional modules have been designed and constructed with reference to the wants and needs of employers within the Casting industry.

PATHWAY: Science & Technology

ROUTE: Engineering

Module	Level	Credit Points	Core / Option
PPD 1	1	15	C
PPD 2	1	15	C
Work Related Learning 1	1	15	C
Work Related Learning 2	1	15	C
Mathematics	1	15	C
Introduction to Casting as a Route to Manufacture	1	15	C
Casting Processes 1	1	15	C
Material Science 2	1	15	C
PPD 3	2	15	C
PPD 4	2	15	C
Work Related Learning 3	2	15	C
Work Related Learning 4	2	15	C
Casting Processes 2	2	15	C
Casting Metallurgy	2	15	E
Method and design for Casting	2	15	E
Heat Treatment for Casting	2	15	E
Casting Process Control	2	15	E
Surface Engineering	2	15	E
Joining of Materials	2	15	E
Further Mathematics	2	15	E
Production and Operations Management	2	15	E

11 Support for Learning

In order to provide a supportive learning environment, a wide range of academic and pastoral support will be made available to students. The precise form of support available to students registered on the Scheme's awards is set out below:

- Information on admission and induction arrangements;
- academic guidance and tutorial support;
- work based mentors;
- pastoral and welfare support;
- Careers information and guidance.

Distance learning processes and the Virtual Learning Environment(VLE)

Each student registered to the college has access to Moodle, (<http://moodle.bradfordcollege.ac.uk/>) the college VLE. This server not only holds all module information and inductions, it also the learning materials, and assessments. Work based learning forms are present in Wiki form so that the WBL aims and objectives can be entered by the student and altered by the mentor and the tutor.

Each student (distance, taught or blended) is able to firstly download the study according to their own needs. Each student is allotted 20 minutes per week to contact his or her tutor by phone, or arrange to be contacted by the tutor at a specific time. The latter arrangements can also be set up by blogging in ELGG, the casting technology social and reflective diary (log) site.

(<http://moodle.bradfordcollege.ac.uk/elgg/>)

All students, whichever mode of attendance, have the same learning materials and assessment.

The invigilation of examinations is only carried out by staff that are employed and/or trained by Bradford College, to comply with Bradford College and Leeds Metropolitan University Regulations and

procedures

All policies and procedures of Bradford College and Leeds Metropolitan University, with regard to Distance and Work Based Learning are adhered to. The procedures and protocols pertaining to this are extracted from the guidance available from the QAA, and are present in the appendices. This information will be made available to students via the course handbook.

Practical Work

In any subject, there is a need to cover practical work. Not all this work can be carried out at college, as the industrial equipment is not present. However, the industrial support groups that have been set up support the students in this area. Students not only have access to their own cast materials testing equipment, but also are able to use equipment at other educational institutions, potentially Birmingham University and other industrial centres.

Work Based Learning placements within the programme, including any arrangements for Health & Safety.

Generally, students attending this course will be in employment and their Health and Safety is supported by the Health and Safety at Work Act under their own employer.

All students who are not employed by the organisation in which they are placed must undergo the Health and Safety training of that organisation and must meet the college's Health and Safety requirement.

Students attending college attend an induction programme highlighting any hazards associated with the college and its equipment.

It may be noted that various employers and other educational institutions support the courses that the college offers in Casting Technology, by giving access whenever possible to specialised equipment. Students working in the casting industry use the workplace as part of the learning environment

12 Criteria for admission

The following minimum criteria are common to all University Foundation Degrees:

- GCE/VCE Advanced Level and New Nationals. One 6-unit qualification at Advanced level, plus three other subjects at GCSE grade C or above.
- National Certificate/Diploma or suitable bridging course in a qualification relevant to the course chosen.
- SQA Advanced Highers. One band C Advanced Higher Pass plus three other subjects at standard grade (grade 3) or above.
- International Baccalaureate. Award of the Certificate with a minimum of 20 points.
- Irish Leaving Certificate. Three higher/honours passes at grade C
- Access courses

The following qualifications are welcomed and will be taken into consideration by the Admissions Team, but may enable entry to the Scheme only in conjunction with other qualifications.

- NVQs or other Level 3 vocational qualifications within the relevant QCA framework
- City and Guilds qualifications at Level 3 or above
- Advanced Apprenticeships with Level 3 qualifications

Non Standard applicants

Non standard applicants are not expected necessarily to have formal qualifications. Applications are welcomed from persons who can demonstrate relevant work experience (including work in a voluntary capacity) who may be admitted to the Scheme on the basis of non-certificated experiential learning. The Scheme actively supports claims for Accreditation of Prior Learning (APL) and Accreditation of Prior Experiential Learning (APEL). Leeds Metropolitan University and Bradford College have well-established APEL and other credit policies with clear criteria offering both generic and specific APEL. These arrangements have been developed more fully to meet the particular needs of foundation degree and mature students with no formal qualifications. The APEL process may facilitate fast tracking on to awards. Details of how to claim by APL/APEL are described within the student handbook, but are also

used at the student induction stage, in the formation of the individual learning plan.

13 Evaluation and improvement of quality and standards

The Scheme and its constituent routes and awards are managed and operated in accordance with College and University regulations and procedures. Annual Reviews will include representations and inputs from employers, professional bodies, students, external examiners and members of the teaching staff which will contribute to curriculum development and improved course organisation. Reports on actions planned to improve quality and standards will be made to the College and the University.

14 Regulations of assessment

The Scheme adopts in full the University Academic Principles and Regulations. Students will be provided with a copy of the University Student Assessment Regulations (a sub-set of the University Academic Regulations) at the point of registration for their award.

15 Indicators of programme quality

Annual review and monitoring will be conducted in line with University regulations using the College processes. The full cycle of review will take place and is identified in the Scheme Calendar. The cycle of review includes module evaluation by students and staff, annual student perception of courses surveys, Employer Surveys, actions recommended by external examiners, Route/Pathway committees, route review and Scheme review, to include critical review of retention, achievement and success rates.