

Programme Specification for FdSc Dental Technology

This document applies to Academic Year 2023/24 onwards

Table 1 programme specification for FdSc Dental Technology

1.	Awarding institution/body	University of Worcester (UW)
2.	Teaching institution	Birmingham Metropolitan College
3.	Programme accredited by	General Dental Council (GDC)
4.	Final award or awards	FdSc Dental Technology
5.	Programme title	FdSc Dental Technology
6.	Pathways available	n/a
7.	Mode and/or site of delivery	Standard taught programme, work-based learning; delivered at Matthew Boulton College part of BMet
8.	Mode of attendance	Full-Time - 2 years and Part-Time 3 years
9.	UCAS Code	B840
10.	Subject Benchmark statement and/or professional body statement	<p>General Dental Council (2015) Preparing for practice. Dental team learning outcomes for registration. (2015 revised edition)</p> <p>QAA (2020) Characteristics Statement Foundation Degree</p>
11.	Date of Programme Specification preparation/revision	<p>May 2017</p> <p>August and October 2018 – AQU amendments</p> <p>February 2019 AQU amendments to template (sections 19 and 21 removed, renumbering) for 2019/20</p> <p>August 2019 AQU amendments to Section 19, minor updates.</p> <p>August 2020 AQU amendments to Section 19.</p> <p>September 2020 – update to GDC document links and QAA benchmark link.</p> <p>September 2020 Amendment to workbased learning hours due to covid-19 pandemic. This is a reduction from a requirement to complete 400 hours across the programme to a requirement to complete between a minimum of 100 hours to a maximum of 200 hours at level 4 and a total of 200 hours at level 5.</p> <p>September 2021 – amendment to return WBL hours to 400 across the programme and AQU amendments.</p> <p>September 2022 – updates relating to provisional reapproval of GDC.</p> <p>July 2023 – annual updates</p>

12. Educational aims of the programme

The aim of the programme is to produce competent technicians that are able to apply for registration as Dental Technicians with the GDC.

The FdSc Dental Technology programme aims to enable students to develop the knowledge, practical and intellectual skills necessary for a career in Dental Technology, along with the theoretical and philosophical underpinning required to support professionalism, independent thought, personal responsibility and decision making during a period of rapid change and increasing accountability. Students completing the FdSc Dental Technology programme can go on to pursue careers as registered Dental Technicians in a range of NHS and private practices or in commercial laboratory based organisations. Students could also choose to progress into further study.

The educational aims of the programme are:

- 1) To provide a dental technology education suited to the needs of students and employers and to enable students to attain the requisite competencies so that they can go on to register as Dental Care Professionals with the GDC;
- 2) To enable students to comply with systems and processes to support safe patient care and work within industry/professional standards, while developing an awareness of and responsibility for safe working practices;
- 3) To promote a challenging academic environment to foster student interest and study in applying the principles of dental technology, biomedical and material sciences;
- 4) To provide inspirational teaching supported by scholarly activity and research;
- 5) To develop an evidence-based approach to learning, professional practice and decision making;
- 6) To foster the development of subject-specific and transferable skills, including self-awareness, personal responsibility, communication and interpersonal skills;
- 7) To promote critically reflective practitioners on the ethical, social and economic implications of professional decisions in dental technology;
- 8) To prepare students both in and for employment, further study, research for lifelong learning.

13. Intended learning outcomes and learning, teaching and assessment methods

Intended learning outcomes

Table 2 knowledge and understanding outcomes for modules/codes

Knowledge and understanding		
No.	On successful completion of a Foundation Degree students will be able to:	Module Code
1.	Describe the range of normal dental and oral anatomy and physiology and recognise abnormalities of the oral cavity and evaluate their effect on the design, modification and manufacture of dental devices and patient oral health.	BIOM1401
2.	Describe and evaluate the scientific principles underpinning the use of materials and dental biomaterials and show a critical understanding of reasons for their selection.	BIOM1403
3.	Describe and evaluate the principles of good research, how to access research and interpret it for use as part of an evidence based approach to practice.	BIOM2506
4.	Critically understand the impact of social, cultural and environmental factors on oral health.	BIOM1401

Table 3 Cognitive and intellectual skills outcomes for modules/codes

Cognitive and intellectual skills
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No.	On successful completion of a Foundation Degree students will be able to:	Module Code:
5.	Apply a critical and evidence-based approach to learning, practice, clinical judgment and decision making and utilise critical thinking and problem solving skills.	BIOM2508
6.	Accurately assess own capabilities and limitations, demonstrating reflective practice, in the interest of high quality patient care and act within these boundaries.	BIOM2508

Table 4 skills and capabilities related to employability outcomes for module code/s

Practical skills related to employment		
No.	On successful completion of a Foundation Degree students will be able to:	Module Code:
7.	Practise safely, effectively and ethically, making the high quality long term care of patients the first concern.	BIOM2506
8.	Demonstrate responsibility and effective clinical decision making as an individual and as part of a team.	BIOM2506
9.	Recognise the importance of lifelong learning and apply it to practice.	BIOM2508
10.	Carry out procedures, from prescription, for the design, manufacture and modification of custom made dental devices to meet current industry standards and legislation.	BIOM2505 BIOM2507 BIOM2508

Table 5 transferable/key skills outcomes for module code/s

Transferable/key skills		
No.	On successful completion of a Foundation Degree students will be able to:	Module Code:
11.	Critically evaluate the role and responsibility of being a registrant and demonstrate professionalism throughout education, training and practice in accordance with GDC guidance.	BIOM2508
12.	Effectively communicate by spoken, written and electronic methods to a range of audiences in the healthcare industry.	BIOM2506
13.	Critically assess their own capabilities and limitations in the interest of high quality patient care taking responsibility for personal development planning, recording of evidence, and reflective practice.	BIOM2508

Learning, teaching and assessment

The programme will be taught through lecturers, seminars, e-learning, workshops and work-based learning (WBL). It also includes practical project and portfolio work by students. It is important that the programme provides a foundation of skills; knowledge and understanding which students can carry on through to other programmes. Opportunities for learning across the programme will be provided through in-class sessions supported by BLACKBOARD resources, exercises and tutorials. The resources provided through class room delivery will form the basis for meeting the learning outcomes supported by further reading.

Essential resources will be available through the BLACKBOARD, as will the formative assessments, in the form of quizzes and short answer questions. Links to videos and other learning resources will also be available through the BLACKBOARD.

A number of custom-made components or devices will be used to develop understanding of the laboratory manufacturing processes. The development of skills in manufacture and application will be based initially around simple devices, fixed restorations and models and

orthodontic appliances thus enabling the development of a range of skills related to dental technology.

Students will be required to complete a total of 400 hours of work based learning across the programme. This may be achieved through a minimum of one work placement for the duration of the programme. It is the student's responsibility to find an appropriate work placement at a Dental Laboratory in the public or private sector. Students are allocated a work place mentor and a work placement officer. It is the work placement officer's responsibility to formally assess the work placement logbook and the work place mentor will confirm the suitability of each appliance for presentation to the customer.

Lectures and tutorials will be used to underpin the practical components with the relevant theory, leading to greater comprehension of the skills being used. Transferable skills will be developed through the modules and embedded into the delivery for the work based modules. The work placements will be supported by work place mentors and college assessors.

Learning in the work-based environment is complemented by practical and technical skill development in the college laboratories where students are supported to achieve the required level of competence from basic to advanced skills, requiring development of professional judgement.

14. Assessment strategy

The programme aims to develop autonomous and independent students who possess a broad range of intellectual, practical and transferable skills. In order to achieve these aims, a range of methods is used to assess students. Assessment methods include examinations, practical skills tests, practical reports, in-class tests, critical essays, presentations and end of module examinations, both theory based and practical. The students will also complete a Log Book of activities designed to assess their suitability for practice which includes confirmation (200 hours across each year of the programme) from their work place mentor that the requisite practice hours have been completed. Assessment of learning is designed to measure competence in the practical elements and meeting of the academic learning outcomes both of the university and the regulatory body, the GDC.

The grading structure for the practical elements of the course is designed to measure threshold competence, and reward practical skill with higher grades. Each practical assessment will have a specific marking descriptor. All examinations and tests have a D-pass mark. Students are required to pass each item of assessment in the final practical modules: BIOM2505 and BIOM2507; there is no compensation between items of assessment within each of these modules. In practice this means students will need to successfully complete each of the prescribed assessment tasks for the practical examinations and each of the practical assignment tasks for the course work.

The emphasis on formative assessment gives more opportunities to provide feedback and this will take a variety of forms; each of the modules have a formative assessment strategy. A grid showing assessment methods and weightings mapped to modules at each level, together with an assessment calendar of submission dates, is included in the course handbook.

Students will be required to complete 200 hours placement learning at each level for a total of 400 hours.

15. Programme structures and requirements

The modules of the programme run for a full academic year. For full time programmes 4 modules are delivered each year; the Employment Practice modules of 30 credits are carried out and assessed in the work place with the support of tutorials and classroom based delivery.

FdSc Dental Technology FT

Table 6 award map for each level of the course

Year 1 (Level 4)

Code	Status	Module Title	No of credits	Pre-requisites (Code of Module required)
BIOM1401	Mandatory	Oral Anatomy and Physiology and Basic Appliance Design	30	NA
BIOM1402	Mandatory	Basic Dental Technology Techniques	30	NA
BIOM1403	Mandatory	Introductory Dental Biomaterials Science	30	NA
BIOM1404	Mandatory	Employment Practice A	30	NA

Requirements at Level 4

Students must take 120 credits in total drawn from the table above to include all mandatory modules

Year 2 (Level 5)

Code	Status	Module Title	No of credits	Pre-requisites (Code of Module required)
BIOM2505	Mandatory	Dental Technology Techniques for Fixed Prosthodontics	30	BIOM1402
BIOM2506	Mandatory	Preparing for Practice and Future Employment	30	NA
BIOM2507	Mandatory	Dental Technology Techniques for Removable Prosthodontics	30	BIOM1402
BIOM2508	Mandatory	Employment Practice B	30	BIOM1404 BIOM1402

Requirements at Level 5

Students must take 120 credits in total drawn from the table above to include all mandatory modules.

FdSc Dental Technology Part Time (example shows completion in 3 years)

Year 1

Code	Status	Module Title	No of credits	Pre-requisites (Code of Module required)
BIOM1401	Mandatory	Oral Anatomy and Physiology and Basic Appliance Design	30	NA
BIOM1402	Mandatory	Basic Dental Technology Techniques	30	NA
BIOM1403	Mandatory	Introductory Dental Biomaterials Science	30	NA

Year 2

Code	Status	Module Title	No of credits	Pre-requisites (Code of Module required)
BIOM1404	Mandatory	Employment Practice A	30	NA
BIOM2505	Mandatory	Dental Technology Techniques for Fixed Prosthodontics	30	BIOM1402
BIOM2506	Mandatory	Preparing for Practice	30	NA

Year 3

Code	Status	Module Title	No of credits	Pre-requisites (Code of Module required)
BIOM2507	Mandatory	Dental Technology Techniques for Removable Prosthodontics	30	BIOM1402
BIOM2508	Mandatory	Employment Practice B	30	BIOM1402 BIOM1404

16. QAA and professional academic standards and quality

[General Dental Council \(2015\) Preparing for practice. Dental team learning outcomes for registration. \(2015 revised edition\)](#)

This award is located at Level 5 of the [OfS sector recognised standards](#).

[QAA \(2020\) Characteristics Statement Foundation Degree](#) has been used to inform the integration of academic and work based learning. It has been designed to meet the requirements of the GDC to meet the demand of the local employment market

17. Support for students

Student support is a central element of the dental technology programme and is available from within the Department of Health, Care and Medical of Matthew Boulton College.

Birmingham Metropolitan College (BMet) welcomes applications from all students. We consider each application individually and aim to provide students with high quality tuition and support. Information regarding a disability and/or learning difficulty will be dealt with sensitively and prospective students are advised to disclose a disability or medical condition, mental illness or learning difficulty which may affect their learning.

The College supports the rights of students with learning difficulties/disabilities to attend the College and receive support and advice as appropriate. Support is available to students through the University of Worcester (UW) and examples of wider University support are [Student Services](#) and the [Disability and Dyslexia Service](#).

Induction

There is a comprehensive induction programme incorporating both theory and practice. The first week of the programme provides students with the opportunity to meet other students, the teaching team and their Personal Tutor. Sessions include introducing students to the principles of learning and teaching in higher education, an introduction to information and learning systems including library resources and an introduction to student services. A cross University and College induction day will be included as part of the induction process. In addition, at the start of their placements an individual placement induction takes place.

Personal tutoring

Personal Tutoring is integral to supporting students personally, professionally and academically. At BMet our belief is that the Personal Tutor system is fundamental to student success.

All students will be allocated a Personal Tutor, who they will see at regular intervals across the academic year. The tutorial sessions are structured to guide and support each student, on an individual basis throughout their programme. They promote the academic and professional development of their tutees. Personal Tutors act as the first point of contact for students experiencing problems or concerns arising while at College, offering signposting to wider College support services.

Curriculum design

The programme has been designed to support student achievement through an emphasis on reflective practice which supports personal, professional and practical skills development. Competence in practice is developed and assessed throughout the programme. There is a strong emphasis on practical and laboratory work in BMet's excellent specialist facilities, using industry specialist equipment. Students have access to a Virtual Learning Environment (BLACKBOARD) for module-specific material, documents, activities, videos etc.

Students are given the Course Handbook (published on an annual basis) to provide them with detailed programme information, information on modules and details of how to access university and college support for their studies. They are also provided with detailed module guides which include planned teaching activity, attendance requirements, assessment brief, assessment criteria and reading lists.

Placement support

Prior to commencing their placement all students will have an induction and preparation for work-based learning placements. These will include professional responsibilities, expected conduct, introduction to the assessment of work-based learning documentation, policy and guidance. They will also complete an individual placement induction on the first day of their placements. This is documented in the Employment Practice Logbooks.

Students are supervised while completing work-based learning in their placements. Their mentor in their placement has primary responsibility for supporting and supervising learning experiences.

Further details related to work-based learning support and assessment are available in the Student Placement Handbook and Employment Practice Logbooks.

18. Admissions

Admissions policy

At BMet we welcome applications from people of all ages and backgrounds with an interest in studying dental technology. We actively encourage and welcome people from the widest range of economic and cultural backgrounds and value the contribution of mature students. Students entering via non-standard entry routes will be interviewed.

Entry requirements

The normal minimum entry requirement for FdSc programmes is 32 UCAS tariff points from a minimum of 4 GCSEs (Grade C/4 or above) including English and Mathematics and 1 A Level (or equivalent Level 3 qualification).

The current UCAS Tariff requirements for entry to this programme are published in the prospectus: <https://www.worc.ac.uk/courses/dental-technology-fdsc>

Students whose first language is not English must have a minimum standard of English at IELTS Level 7 with no element below 6.5.

As part of the admissions process all applicants will be required to sit an English diagnostic assessment equivalent to Level 2. This is to establish if applicants require support and is used as a supportive tool only.

See [UW Admissions Policy](#) for other acceptable qualifications.

Recognition of Prior Learning

Details of acceptable level 3 qualifications as well as the policy in relation to mature students or applicants with few or no formal qualifications can be found in the prospectus or on the University webpages. Information about eligibility for recognition of prior learning for the purposes of entry or advanced standing is also available from the University webpages or from the Registry Admissions Office (01905 855 111).

Further information on Recognition of Prior Learning can be found at <http://www.worcester.ac.uk/registryservices/941.htm>

Admissions procedures

Applications are reviewed and applicants selected for interview. Applicants will undergo a practical test to assess manual dexterity and formal interview to assess suitability for the programme.

Full-Time applicants apply through UCAS - UCAS Code B840.

Part-Time applicants apply directly to UW.

Admissions/selection criteria

UCAS Procedure – All applications for admission to the full-time undergraduate degree programme must normally be made through UCAS except for applicants who are already in higher education and are transferring to/from a different university.

Interview Process - On the interview day applicants complete an on-line English diagnostic assessment set at Level 2, which is conducted using the BMet diagnostic tests to ascertain if the student requires support. Applicants also complete a free writing assessment. A structured format is used for the interviews, which are designed to allow the candidate to demonstrate their suitability for the programme. All applicants will undergo a manual dexterity assessment.

Successful applicants will be expected to purchase their own toolkit and a lab coat at the start of the programme at a cost of approximately £300 (subject to change). Advice is given on what is required and where they can be obtained in the course handbook. Students are advised to have Hepatitis B, Tetanus, and TB inoculations for laboratory placements.

19. Regulation of assessment

The programme operates under the University's Taught Courses Regulatory Framework

Requirements to pass modules

- Modules are assessed using a variety of assessment activities which are detailed in the module specifications.
- The minimum pass mark is D- for each module.
- Students are required to submit all items of assessment in order to pass a module, and in some modules, a pass mark in each item of assessment may be required.
- Full details of the assessment requirements for a module, including the assessment criteria, are published in the module outline.
- Students are required to complete a total of 200 hours in BIOM1404 and 200 hours in BIOM2508 totalling 400 hours of work place activity.
- For modules BIOM2505 and BIOM2507 at Level 5, each assessment item must be passed, and all individual practical tasks successfully completed as prescribed in the module outline; there is no compensation between practical assessment tasks or assessment items.

Submission of assessment items

- Students who submit course work late but within 7 days (one week) of the due date will have work marked, but the grade will be capped at D- unless an application for mitigating circumstances is accepted.
- Students who submit work later than 7 days (one week) but within 14 days of the due date will not have work marked unless they have submitted a valid claim of mitigating circumstances.
- For full details of submission regulations please see the Taught Courses Regulatory Framework.

Retrieval of failure

- Students are entitled to resit failed assessment items for any module that is awarded a fail grade.
- Reassessment items that are passed are capped at D-.
- If a student is unsuccessful in the reassessment, they have the right to retake the module; the module grade for a re-taken module is capped at D-.
- A student will be notified of the reassessment opportunities in the results notification issued via the secure student portal (SOLE). It is the student's responsibility to be aware of and comply with any reassessment.

Requirements for progression

- A student will be permitted to progress from Level 4 to Level 5 if, by the time of the reassessment Board of Examiners, they have passed at least 90 credits at Level 4. Outstanding Level 4 credits must normally be studied in the following academic year.
- A student who, by the time of the reassessment Board of Examiners, has failed 90 credits or more (after exhausting all reassessment opportunities) during the academic year, will have their registration with the University terminated.
- If a student has not passed at least 90 credits by the reassessment Board of Examiners, the student is not permitted to progress to the next level and will be required to either complete outstanding reassessment or retake the failed modules the following academic year. Students will be able to carry forward any passed modules.

This course is subject to the University's fitness to practice procedures.

Requirements for awards

Table 7 requirements for awards

Award	Requirement
Cert HE	In order to be eligible for the exit award of Certificate in Higher Education in Dental Technology the student must have passed at least 120 credits.
FdSc	120 credits at Level 4 and 120 credits at Level 5 as specified on the award map.

These awards are not classified.

20. Graduate destinations, employability and links with employers

Graduate destinations

The aim of this programme is to train competent student Dental Technicians who are able to register as Dental Technicians with the GDC

Graduates go on to gain employment in commercial and NHS dental laboratories, dental sales and supply companies as technical or sales staff. Graduates can also progress onto BSc Hons in Dental Technology, Clinical Dental Technology and Hygiene and Therapy programmes.

Progression to linked Honours Degree(s)/Top-Up Degree(s)

FdSc Dental Technology students will have the option to progress to the Level 6 [BA \(Hons\) Applied Health & Social Care Top Up](#)

Student employability

As well as academic development the main focus of the programme is to develop the students as Dental Technicians. The skills and behaviours required for the profession are developed through the Preparing for Practice and Employment Practise modules at Level 4 and 5. The approach and ethos of the programme is to develop professionalism and independent thought. The student will be prepared for entering the workplace by promoting those skills that will lead to employment. These include: effective CV writing and employability, improving behaviours such as time keeping etc. Work based skills will be further developed through the work placement. Industry experienced speakers and tutors will explain the opportunities within the industry and the attitudes and behaviours needed to succeed.

Links with employers

The UW has an outstanding reputation of working closely with employers both in the private and public sector in health, science, education and the arts.

Dental technology programmes at BMet have had a long history of employer involvement having delivered this programme for a number of years. Employers have been invited to contribute to both curriculum design and programme delivery to enhance the learning experience of the students. Employers also provide support to students as mentors for the Employment Practice modules. External advisors with vocational experience were also involved in the validation of the programme and will be involved in the development and improvement to meet employer needs.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in associated programme documentation e.g. course handbooks, module outlines and module specifications.