Course Specification Template

This specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided.

We undertake continuous review of our courses to ensure quality enhancement and professional relevance, in response to student and other stakeholder feedback and to manage our resources. As a result, this course may be revised during a student's period of registration. Major changes to courses and modifications to courses are approved following consideration through the University's Course Approval and Review processes or Course and Unit Modification policy, as appropriate; Any changes will be balanced against our obligations to students as set out in our Student Agreement and will be discussed with and communicated to students in an appropriate and timely manner.

Basic Course Information

Final award and title	MSc Breast Imaging	**Course Code**	MSBIP
FHEQ level and credit of final award	MSc Breast Imaging 180 Level 7 Credits (90 ECTS)		
Intermediate awards titles	PgCert Breast Imaging PgDip Breast Imaging		
FHEQ level and credit of intermediate award	PgCert Breast Imaging 60 Level 7 Credits (30 ECTS) PgDip Breast Imaging 120 Level 7 Credits (60 ECTS)		
Awarding Institution	Health Sciences University		
Teaching Institution	Health Sciences University		
Professional, Statutory & Regulatory Body (PSRB) accreditation/recognition	**Society and College of Radiographers (SCoR), December 2022**		
Duration of PSRB accreditation/ recognition where applicable)	5 years - re-approval by December 2027		
Mode of study	Part-time Standalone (CPD) for units: BMI7002 Imaging Guided Breast Intervention BIM7003 Mammography Image reading and reporting BIM7004 Clinical Breast Assessment and communication BIM7005 Mammography in Practice		
Distance Learning course	No		
Standard length of course	Normally 3-4 years		
Language of delivery	English		
Place of delivery	Health Sciences University		
UCAS code (where applicable)	N/A		
HECOS Code(s)	101330		
Date Course initially approved	November 2022		

Version number	1.3
Date this version approved	27 May 2025
Academic year from which this applies	September 2024
Author	Stewart Cotterill

Course Overview

1. Admissions regulations and entry requirements

The regulations for this Course are the University's Standard Admission Regulations which may be found from the Latest Policies webpage. These regulations include the general entry requirements and specific requirements regarding English language.
The detailed entry requirements for the course may be found from the relevant course page on the University website.

Applicants must complete to the satisfaction of the Course Leader a Clinical Placement Agreement Form approved by the workplace Practice Educator confirming the requirements of the role and provision of required resources and supervision.

To be able to undertake the unit '*Mammography in Practice*' the applicant is required to have a placement / training centre where they can perform an agreed number of two-view mammograms and experience a range of further radiographic views and procedure. Details of this are required within the Clinical Placement Agreement Form and will be assessed by the Breast Imaging Course Lead. *The applicant must also be able to attend a clinical placement week at Dorset Breast Screening Centre to support the practical aspects of the course.*

To be able to undertake the unit '*Imaging Guided Breast Intervention*' the applicant must demonstrate that they have suitable qualification/experience/insurance to be able to perform injections. Details of this are required within the Clinical Placement Agreement Form and will be assessed by the Breast Imaging Course Lead.

To be able to undertake the unit *'Mammography Image Reading and Reporting'* the applicant is required to have a placement / training centre for screening mammogram image reading. Details of this are required within the Clinical Placement Agreement Form and will be assessed by the Breast Imaging Course Lead.

It is imperative that prior to registration onto the MSc Breast Imaging course the clinical placement is recognised as satisfactory by the Course Lead. The student is expected to train in a safe environment which provides opportunities for good quality supervised training. The clinical placement must provide the student with access to a good case-mix of patients in regular planned clinics using high-specification equipment. Learning resources should also include computers and internet access to encourage students to carry out academic and research activities for the successful completion of their coursework. Assessment of suitability will be performed through completion of the Clinical Placement Agreement Form, however a placement site visit may be carried out by a member of the Breast Imaging course staff, to ensure appropriate placement for applicants training requirements can be provided prior to registration onto the course.

Recognition of Prior Learning (RPL)
Health Sciences University has a Recognition of Prior Learning Policy which can be found from the Latest Policies webpage

The course is designed to provide for admissions through RPL ensuring that the Recognition of Prior Learning Policy has been followed. Evidence of equivalent course content and assessment is required.

2. Additional entry requirements

Please state if there are any additional requirements for admission– for example requirements for immunisations, DBS clearance etc If there are any Articulation or Recognition agreements in place for the course, or if the course has been designed to allow internal progression please state this here

Not applicable as these additional requirements will be carried out by the placement site.

Students will need a placement site as a condition of entry, as specified under entry requirements above.

For 'Mammography in Practice' The applicant must be able to attend a clinical placement week at Dorset Breast Screening Centre to support the practical aspects of the course.

3. Aims of the course

This course aims to enable students to attain application-specific skills in different aspects of breast diagnosis and imaging ensuring safe and competent practice for entry to the profession as a reflective and critical practitioner. This aligns with 'The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies' (FHEQ) October 2014. As part of this process, the course aims to enable students to:

- attain the required skills to operate as a competent radiographer in the NHSBSP
- acquire in-depth knowledge and understanding in breast diagnosis and imaging aligned to new developments and current empirical evidence
- acquire clinical skills for safe and competent practice in breast diagnosis and imaging
- advance professional practice through critical evaluation and critical reflection on documentary (practice) evidence and empirical (research) evidence within the breast sector
- plan and conduct an in-depth scientific investigation in a topic area relevant to breast imaging
- develop continual learning and professional development strategies.

4. Course Learning Outcomes – what students will be expected to achieve

This course provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:	**The methods used to enable outcomes to be achieved and demonstrated are as follows:**
Subject Knowledge and Understanding Having successfully completed this course students will be able to demonstrate knowledge and understanding of: A1 the operation and appropriate selection of breast imaging equipment A2 professional responsibility in safe and ethical imaging practice A3 the relevant anatomy and pathology in breast practice A4 the techniques and reporting of imaging methods within the breast specialty A5 how methodologies of research and audit enquiry are used to create and interpret knowledge	**Teaching and Learning Methods** A range of teaching and learning methods are used. The primary learning environment is the clinical placement setting where practical skills are mostly attained. The student is expected to adopt self-directed learning strategies in which individual learning needs are identified within their own professional practice, learning achieved by appropriate means, and learning outcomes applied to meet these needs and change practice. Students are required to attend for formal seminars and presentations (A1-A5). LO A1-2 will also be demonstrated through practical sessions using machinery and phantoms at the University and use of the prosection lab for practical skills to demonstrate LO A3. Workshops will aid teaching for LO A4.
	Assessment Methods

	The student will experience a variety of assessment methods to be able to demonstrate the learning outcomes. This allows for practical demonstration as well as critical thinking. ILOs A1-A4 are assessed in critical reflective written accounts in which critical thinking and critical writing skills are demonstrated through critical written account and case studies. Clinical competency is assessed by a record of clinical cases (log books) and a practical assessments (A1-A4). A4 is demonstrated in practical assessment for the Mammography Image reading and reporting unit. The research/audit protocol and dissertation/clinical audit assess A5. Students receive feedback (summative) on their written work through an assessment feedback form which grades individual assessment criteria and gives an overall grade for the work. In addition to the grade students receive literal feedback through the open comments box. In specified units students are given the opportunity to submit a draft of their work for feedback before their final submission. Students receive feedback immediately after their mock and final practical examinations by engaging with their assessor. In particular, detailed feedback is provided in cases where remedial work is necessary.
Cognitive Skills Having successfully completed this course students will be able to: B1 critically reflect on the practice of breast imaging B2 critically evaluate research and experiential evidence so as to develop reasoned arguments and arrive at valid conclusions B3 apply new knowledge and insight to inform and change professional practice within breast diagnosis B4 make sound diagnostic decisions within breast practice from a range of information sources	**Teaching and Learning Methods** This reflective and critical thought learning model is mostly evident in the written coursework (B1-B5). Learning experiences in the clinical setting achieve many of the intellectual and practical skills associated with safe and ethical breast imaging practice (B4). The clinical setting allows the student to apply learning (B3). Learning by undertaking a research study or clinical audit under supervision in the final stage achieves knowledge and skills in empirical data collection, analysis and interpretation generating original knowledge in the form of answers to research questions or recommendations based on review of current practice against pre-determined standards (B5).

B5 synthesise existing knowledge and practice to identify areas amenable to research and other forms of investigation	**Assessment Methods** The student will experience a variety of assessment methods to be able to demonstrate the learning outcomes. This allows for practical demonstration as well as critical thinking. ILOs B1-B5 are assessed in critical reflective written accounts in which critical thinking and critical writing skills are demonstrated. Clinical competency is assessed by a record of clinical cases (log book) and a practical assessment (B2-B4). The research/audit protocol and dissertation/clinical audit assess B5. The oral presentation for Breast Ultrasound Unit will incorporate ILO B3 & B4. Students receive feedback (summative) on their written work through an assessment feedback form which grades individual assessment criteria and gives an overall grade for the work. In addition to the grade students receive literal feedback through the open comments box. In specified units students are given the opportunity to submit a draft of their work for feedback before their final submission. Students receive feedback immediately after their mock and final practical examinations by engaging with their assessor. In particular, detailed feedback is provided in cases where remedial work is necessary.
Practical Skills Having successfully completed this course students will be able to: C1 demonstrate new skills for safe and competent breast diagnostic practice C2 acquire high quality breast diagnostic practice C3 effectively and sensitively communicate breast imaging and/or assessment findings and conclusions to peers, colleagues and patients C4 demonstrate the ability to seek second and expert opinion within breast imaging and reporting C5 plan and undertake an original and systematic line of enquiry to inform professional practice	**Teaching and Learning Methods** A range of teaching and learning methods are used. The primary learning environment is the clinical placement setting where practical skills are mostly attained. The student is expected to adopt self-directed learning strategies in which individual learning needs are identified within the individual's own professional practice, learning achieved by appropriate means, and learning outcomes applied to meet these needs and change practice. In addition to clinical practice LO C1-4 will be demonstrated through practical demonstrations and practical hands-on workshops. Using machines, phantoms and models at the University. Learning experiences in the clinical setting achieve many of the intellectual and practical skills associated with safe and ethical ultrasound practice (C1-C4). Learning by undertaking a research study or clinical audit under supervision in the final stage achieves knowledge and skills in empirical data collection, analysis and interpretation generating original knowledge in the form of answers to research questions or recommendations based on review of current practice against pre-determined standards (C5).

	Assessment Methods The student will experience a variety of assessment methods to be able to demonstrate the learning outcomes. This allows for practical demonstration as well as critical thinking. LOs C1-2 are assessed in critical reflective written accounts in which critical thinking and critical writing skills are demonstrated. Clinical competency is assessed by a record of clinical cases (log books) and practical assessments (C2-C4). C3 is also demonstrated in the Oral Presentation for Breast Ultrasound unit. C3 is demonstrated in practical assessment for the Mammography Image reading and reporting unit.The research/audit protocol and dissertation/clinical audit assess C5. Students receive feedback (summative) on their written work through an assessment feedback form which grades individual assessment criteria and gives an overall grade for the work. In addition to the grade students receive literal feedback through the open comments box. In specified units students are given the opportunity to submit a draft of their work for feedback before their final submission. Students receive feedback immediately after their mock and final practical examinations by engaging with their assessor. In particular, detailed feedback is provided in cases where remedial work is necessary.
Transferable skills Having successfully completed this course students will be able to: D1 reflect on professional practice and think and write critically D2 make reasoned judgements based on the available evidence and in the absence of complete information D3 acquire the ability to learn independently necessary for continuing professional development.	**Teaching and Learning Methods** A range of teaching and learning methods are used. The primary learning environment is the clinical placement setting where practical skills are mostly attained. The student is expected to adopt self-directed learning strategies in which individual learning needs are identified within their own professional practice, learning achieved by appropriate means, and learning outcomes applied to meet these needs and change practice. This reflective and critical thought learning model specifically demonstrates the transferable skills (D1-D3) and is mostly evident in the written coursework. Learning experiences in the clinical setting achieve many of the intellectual skills associated with professional practice and the ability to reflect on this (D1, D3)

	Assessment Methods The student will experience a variety of assessment methods to be able to demonstrate the learning outcomes. This allows for practical demonstration as well as critical thinking. LOs D1-D2 assessed in critical reflective written accounts in which critical thinking and critical writing skills are demonstrated. Clinical competency is assessed by a record of clinical cases (log book) and a practical assessment (D1-3). Students receive feedback (summative) on their written work through an assessment feedback form which grades individual assessment criteria and gives an overall grade for the work. In addition to the grade students receive literal feedback through the open comments box. In specified units students are given the opportunity to submit a draft of their work for feedback before their final submission. Students receive feedback immediately after their mock and final practical examinations by engaging with their assessor. In particular, detailed feedback is provided in cases where remedial work is necessary.
Professional competencies Having successfully completed this course students will be able to E1 practice in compliance within the respective code of professional conduct and within the scope of practice, being responsible and accountable for decisions, actions and omissions E2 demonstrate critical understanding of a broadened level of responsibility and autonomy and the limits of own competence and professional scope of practice, including when working with complexity, risk, uncertainty and incomplete information	**Teaching and Learning Methods** LO E2 will be addressed and explored in formal seminars. Learning experiences in the clinical setting achieve many of the intellectual and professional skills associated with safe and ethical breast imaging practice and the ability to reflect on this (E1-2). The clinical setting allows the student to apply learning (E1-2). **Assessment Methods** The student will experience a variety of assessment methods to be able to demonstrate the learning outcomes. This allows for practical demonstration as well as critical thinking. LO E2 is assessed in critical reflective written accounts in which critical thinking and critical writing skills are demonstrated through critical written account and case studies. Clinical competency is assessed by a record of clinical cases (log books) and a practical assessments (E1-2).

Intermediate exit award outcomes

PgCert Breast Imaging:

Subject Knowledge and Understanding

A1 the operation and appropriate selection of breast imaging equipment

A2 professional responsibility in safe and ethical imaging practice

A3 the relevant anatomy and pathology in breast practice

A4 the techniques and reporting of imaging methods within the breast specialty

Cognitive Skills

B1 critically reflect on the practice of breast imaging

B2 critically evaluate research and experiential evidence so as to develop reasoned arguments and arrive at valid conclusions

B3 apply new knowledge and insight to inform and change professional practice within breast diagnosis

B4 make sound diagnostic decisions within breast practice from a range of information sources

Practical Skills

C1 demonstrate new skills for safe and competent breast diagnostic practice

C2 acquire high quality breast diagnostic practice

C3 effectively and sensitively communicate breast imaging and/or assessment findings and conclusions to peers, colleagues and patients

C4 demonstrate the ability to seek second and expert opinion within breast imaging and reporting

Transferable skills

D1 reflect on professional practice and think and write critically

D2 make reasoned judgements based on the available evidence and in the absence of complete information

D3 acquire the ability to learn independently necessary for continuing professional development.

Professional competencies

E1 practice in compliance within the respective code of professional conduct and within the scope of practice, being responsible and accountable for decisions, actions and omissions

E2 demonstrate critical understanding of a broadened level of responsibility and autonomy and the limits of own competence and professional scope of practice, including when working with complexity, risk, uncertainty and incomplete information

PgDip Breast Imaging:

Subject Knowledge and Understanding

A1 the operation and appropriate selection of breast imaging equipment

A2 professional responsibility in safe and ethical imaging practice

A3 the relevant anatomy and pathology in breast practice

A4 the techniques and reporting of imaging methods within the breast specialty

Cognitive Skills

B1 critically reflect on the practice of breast imaging

B2 critically evaluate research and experiential evidence so as to develop reasoned arguments and arrive at valid conclusions

B3 apply new knowledge and insight to inform and change professional practice within breast diagnosis

B4 make sound diagnostic decisions within breast practice from a range of information sources

Practical Skills

C1 demonstrate new skills for safe and competent breast diagnostic practice

C2 acquire high quality breast diagnostic practice

C3 effectively and sensitively communicate breast imaging and/or assessment findings and conclusions to peers, colleagues and patients

C4 demonstrate the ability to seek second and expert opinion within breast imaging and reporting

Transferable skills

D1 reflect on professional practice and think and write critically

D2 make reasoned judgements based on the available evidence and in the absence of complete information

D3 acquire the ability to learn independently necessary for continuing professional development.

Professional competencies

E1 practice in compliance within the respective code of professional conduct and within the scope of practice, being responsible and accountable for decisions, actions and omissions

E2 demonstrate critical understanding of a broadened level of responsibility and autonomy and the limits of own competence and professional scope of practice, including when working with complexity, risk, uncertainty and incomplete information

Course Structure

5. Outline of course content

This course provides an education and training to healthcare professionals in breast imaging and assessment at level 7. The course combines clinical skills-based units enabling the acquisition of knowledge and practical competencies in breast imaging in a range of clinical applications together with units developing skills in reflective and critical evidence-based practice, leadership and management. The course is intended for healthcare professionals employed in their respective working communities to acquire new knowledge and skills within breast practice.

The units demonstrate the clinical and advanced practice skills needed for a student to be able to work as a specialist clinician within a breast imaging unit. The clinical units allow students to acquire the breast imaging and diagnostic skills specific to their requirements as a clinician within a breast assessment service to include;

Mammography in Practice, where students are able to produce two-view mammographic images synchronously with high quality person-centred care, within the NHSBSP and symptomatic services. Additionally, they will develop competence in a range of further views and be able to support advanced mammographic procedures as per the triple assessment process.

Clinical Breast Assessment and Communication, where students are able to perform a breast examination and advise the best imaging pathway as well as communicate results of the imaging performed.

Breast Ultrasound, where students are able to safely perform an ultrasound scan on an area of concern from either a clinical examination or mammogram and report the findings and make recommendations.

Mammography Image Reading and Reporting, where students will demonstrate the ability to read both screening and symptomatic mammograms and decide on the next pathways for the patient, this will also provide guidance to a possible subsequent ultrasound scan. To further enhance and adapt these clinical skills the Imaging

Guided Breast Intervention allows expansion of knowledge to acquire a full diagnostic assessment through acquiring imaging guided tissue sampling to aid the MDT and overall diagnosis of findings.

5. Outline of course content

These clinical units allow complete participation if the 'one stop breast service' and a comprehensive understanding of breast diagnostic services. The addition of the leadership and management, professional development and evidence -based practice units allow the students to incorporate the 4 pillars of advanced practice to their clinical practice giving them the opportunity to demonstrate key abilities for Advanced Clinical Practice and Consultant Radiographer roles.

In the academic context, this is a Level 7 course requiring critical thinking skills at all stages of the course. These skills are mostly demonstrated in critical writing skills.

In the case of safe and competent practice skills, these can be acquired in a range of named clinical applications in the breast setting. The course is designed to be flexible to the individual needs of practitioners working in different disciplines, enabling them to acquire diagnostic skills in different techniques. For example those wanting to work within breast ultrasound only or mammogram reading or those who are gaining skills across multiple clinical breast specialties. Or those starting out in their Breast Imaging career learning the basics of radiographic breast Imaging (Mammography). Breast diagnosis is an increasingly used clinical skill, and this course is designed to be responsive to workforce shortages.

Students graduate with the award, PgCert/PgDip/MSc Breast Imaging or exit with stand-alone clinical unit credits. It is the academic transcript that clearly shows the specific skills attainment and academic profile of the student. This is in line with other similar courses in the sector, and common practice to inform employers of the specific competencies attained.

6. Placements, work-based learning or other special features of the course

To be able to demonstrate the LO's across all clinical units there is training and learning required from clinical placements and Practice Educators. The clinical placement should give learning experience to students in the appropriate patients and case-mix needed to gain the relevant practice, knowledge and practical abilities to be safe and competent within each clinical specialty enrolled on. A clinical placement also gives the student opportunities in communication between patients, colleagues and the multi-disciplinary team. The placement should provide the student with good quality supervised training, access to a good case-mix of patients in regular planned clinics using high-specification equipment. This will give the students opportunity to demonstrate their critical thinking through coursework required and prepare them for their practical assessments.
The clinical placement will need to evidence the hours the student will spend training and learning weekly within each clinical specialty enrolled in and how it will be ensured that this is kept separate from the student's normal working duties. This highlights the requirements for a clinical placement to meet standards to allow students to achieve the competencies and gain the experience needed to meet the LO.

Additionally, for the Mammography in Practice module a Clinical placement week hosted by the Dorset Breast Screening Unit is required and will be arranged by Dorset Breast Screening Unit. This will support the learning done in the student's main clinical placement and reinforce *good practice mammographic techniques*. Taking into account RSI (Repetitive Strain Injury) and the NHSBSPs guidance. This will be a time for students to reflect and adapt their practice with dedicated one-one supervision, enabling them to become more proficient and *long-lasting* practitioners. It will also ensure the students has access to a range of advance mammographic techniques that they might not be able to access at the main clinical site, such as Tomography and Vaccumn-assisted procedures.

For any unit with a practical assessment, these will be assessed by two appropriately qualified professionals (the same skills set in the area being assessed) at the placement site acting as assessor and moderator (as specified on the placement form). The University may send an appropriate member of the breast imaging staff to the placement site to act as the moderator, allowing the Practice Educator to act as the assessor. The University will hold a practical

6. Placements, work-based learning or other special features of the course

assessment briefing session virtually prior to the students practical assessments for all placement sites. This session will set out the requirements for the practical assessments held at the placement site for the assessor and the requirements for the students. This will explain the practical assessment form and expectations for a Pass or Fail assessment. This will ensure the practical assessments are performed appropriately and fairly and that the responsibilities of the assessor and moderator are made clear.

To demonstrate that the student is able to acquire these practical skills and experience, students must submit a Clinical Placement Agreement Form at the time of application for the relevant skills-based units. This form is in-depth and detailed information is required for each unit. This must be completed to the satisfaction of the Breast Imaging Course Lead at the stage prior to acceptance on the course/unit. This form ensures that the student has the opportunity to fulfil the practical skills requirements of the course in his/her workplace. It is the responsibility of the student and not the institution to ensure that these opportunities are both available and sufficient to meet the requirements of the course. However, a placement site visit may be carried out by a member of the Breast Imaging course staff, to ensure an appropriate placement for applicants training requirements can be provided prior to registration onto the MSc Breast Imaging course.

The Practice Educators will be invited to the University to attend the Practice Educator's day prior to the unit theory seminar days. This day will explain the University's expectations of the placement sites and the Practice Educators, and give the Practice Educators the opportunity to meet the unit leads and understand the expectations of the course. To provide support, each Practice Educator will be given the contact details of the relevant unit lead and Breast Imaging Course Lead for communication between placement sites and the University for any concerns or queries which may present.

Students are required to fill out placement feedback sheets each term. This will allow the student and their Practice Educator to evaluate and reflect on the learning and training in the placement site. This should identify areas of strength or opportunities for development. This will give the opportunity to critically reflect on practice and support decision making skills. The course and unit leads are able to assess these and contact either the student or placement site if necessary, to follow up any issues or concerns on either side.

7. Course structure, levels, units credit and award

The level of study, units and credits required for the course and for final and exit awards are set out in the **course diagram** provided as Appendix 1.

The **learning outcomes mapping document** at Appendix 2 shows the relationship between ILOs for units and the overarching ILOs of the course.

The **Course summary document** at Appendix 3 shows the structure of each unit in terms of summative assessment and gives an indication of learning hours/student workload for each unit.

8. Learning hours/student workload

Health Sciences University courses are made up of units of study, which are given a credit value indicating the notional amount of learning undertaken. One credit equates to ten student study hours, including student contact time, tutor guided learning time, and independent study (including assessment). 10 University credits are equivalent to five European Credit Transfer System (ECTS) credits.

Student contact time is a broad term, referring to the amount of time students can expect to engage with University staff in relation to teaching and learning. It includes scheduled teaching sessions (sessions on a student and/or staff timetable), specific academic guidance (i.e. not broader pastoral support/guidance) and feedback. Contact time can take a wide variety of forms depending on the subject and the mode of study. It can include engagement both face-to face (in

8. Learning hours/student workload

person) through on-campus seminars, labs, studios and workshops - and online, for example through Zoom/Teams seminars, online discussion forums, webinars, email or live chat. Online contact time can be synchronous or asynchronous. Online contact time is always characterised by personalised tutor presence and input within a specified time-frame.

Opportunities for one to one interaction with members of staff, during which students can receive individual help or personalised feedback on their progress, may not always present themselves as formal scheduled sessions. 'Office hours' for example are a frequent feature where members of staff are available for one to one sessions at set times. Interactions via email for e.g. is another example of contact time.

Independent study incorporates student-led activities (without the guidance of a member of teaching staff), such as preparation for scheduled sessions, reflecting on feedback received and planning for future tasks, follow-up work, wider reading (including reading beyond set topics), or practice, revision, and completion of assessment tasks.

Independent study helps students learn to manage their own learning as preparation for the expectations of a professional life that emphasises continuing professional development and life-long learning

Tutor-guided learning covers specific learning activities that students are asked to undertake by a tutor, such as directed reading, review of learning materials on the Virtual Learning Environment (VLE) in advance of scheduled 'flipped classroom' sessions.

Learning hours per year will depend on the number/combination of units selected.

An average student experience would include a student completing 3 units in year 1 (Science and Instrumentation, Breast Ultrasound and Imaging Guided Breast Intervention). This would be 80 Credits in total, equate to 50 hours of student contact time, that may include seminars, labs, practical's, workshops. Contact time may be face-to-face or on-line activities that are tutor-led or mediated. Students will have around 100 hours of tutor guided time, that may include directed reading, review of lecture presentation on the VLE in advance of scheduled 'flipped classroom' sessions. In addition to contact time and guided non-contact hours, students are expected to undertake around 650 hours of independent study per academic year. This includes clinical placement and time for revisions/preparation for assessments, as well as activities such as private reading and researching. More detail about student workload is provided in unit specifications.

An average student experience would include a student completing 2 units in year 2 (Mammography Image Reading and Reporting, Clinical Breast Assessment and Communication). This would be 60 Credits in total, equate to 24 hours of student contact time, that may include seminars, labs, practicals, workshops. Contact time may be face-to-face or on-line activities that are tutor-led or mediated. Students will have around 100 hours of tutor guided time, that may include directed reading, review of lecture presentation on the VLE in advance of scheduled 'flipped classroom' sessions. In addition to contact time and guided non-contact hours, students are expected to undertake around 477 hours of independent study per academic year. This includes clinical placement and time for revisions/preparation for assessments, as well as activities such as private reading and researching. More detail about student workload is provided in unit specifications.

Students may choose to take a year to take the additional optional units in year 3 (Professional Development, Leadership and Inter-professional Working and Evidence-based Practice). This would be 60 credits in total, equate to 27 hours of student contact time.

If students wish to complete the MSc they will include the research/clinical Audit units in the final year. This would be 60 credits in total.

9. Staff delivering the course

Students will be taught by Health Sciences University academic staff and external qualified professional practitioners with relevant expertise. Visiting subject specialist lecturers and workshop facilitators are brought in for breast imaging skills-based units. Where appropriate, external teaching staff are GMC or HCPC registered and include consultant radiologists, consultant radiographers, breast ACP, breast surgeons, breast clinical directors, Mammographers, Medical Physicists and GP's.

10. Progression and assessment regulations

The regulations for this course are the University's Assessment Regulations which may be found from the Latest Policies webpage.

Where specific requirements apply – for example, where Professional, Statutory and Regulatory bodies have additional or alternative requirements this is specified in the relevant course-specific section of the Assessment regulations.

11. Employment progression routes

The Mammography in Practice module will enable the SOR Postgraduate Award in Mammography Practice to be awarded. Allowing students to work as autonomous professionals within the breast screening service, providing support staff supervision, screening mammography, contributing the triple assessment process of screening clients and ensuring Screening guidelines are adhered to. This module is also suitable for thise working in symptomatic services only as skills are transferable and NHSBSP principles support the effective running of a symptomatic service.

A PgCert, PgDip or MSc in Breast Imaging will give the students the qualifications to work within a symptomatic or screening breast imaging department within their chosen clinical specialties. The unit options within this course give the students opportunities to practice enhanced and advanced clinical practice roles. When relevant units and completion of the MSc in Breast Imaging is achieved, there is opportunity to demonstrate working against the Health Education England (HEE) 'Multi-professional Framework for advanced clinical practice in England' (2017). This will open opportunities for Advanced Clinical Practice (ACP), breast physician and consultant radiographer roles within breast imaging. Students are encouraged to continue life-long learning, education and research to evidence the 4 pillars of advanced or consultant practice.

Students may also wish to complete stand alone units in a specific clinical discipline appropriate to their workplace requirements. These students will gain credits in their specified clinical unit, without an exit award. This may be relevant to students only aiming to practice as a mammographer in a symptomatic or screening service. Or in the case of advanced practice only practice x-ray guided interventions, clinical breast assessment and communication or mammography film reading and reporting.

12. Additional costs and special or unusual conditions which apply to this course,

Additional costs are mandatory or optional costs which students will need to meet in order to fully participate in and complete their course. Students will need to budget for these costs separately as they are not included in the overall Tuition Fee they are charged.

'Special or unusual conditions' are aspects of the course which students may not be expecting and which may therefore have an impact on whether or not they wish to undertake the course.

For students enrolling in the Mammography in Practice module upon completion they will be eligible to receive the SOR Postgraduate Award in Mammography Practice. The student needs tell the SOR they have enrolled on the Mammography in Practice module when they commence the course and upon completion can pay a fee to the SOR to have the award presented. This cost is not included in course fees. More details are on the SOR website.

For students enrolling in the mammography image reading and reporting unit:

If a student is required to re-sit the final Improves test you will be invoiced for the cost of the re-sit test.
• Performance Test - This is a post-learning performance test, logging an interpretive opinion on a test set of screening mammograms. It is referred to as the Final IMPROVES test Performance is measured against UK radiologists' performance. Students should achieve a minimum of 80% Correct Recall and 60% Correct Return to screening in order to pass the assessment. Re-sits for the Final Improves Test will incur a charge.

Information about additional costs and special or unusual conditions applying to students on this course can be found in the **Important information to take into account when choosing your course** available from the Latest Policies webpage

13. Methods for evaluating the quality of learning and teaching

Students have the opportunity to engage in the quality assurance and enhancement of their courses in a number of ways, which may include:

- Completing student surveys annually to give feedback on individual units and on the course as a whole
- Completing the National Student Survey in the final year of the course
- Seeking nomination as a Student Union representative OR engaging with these elected student representatives
- Serving as a student representative on Course Consideration panels for course approval/review
- Taking part in Course Consideration or professional body meetings by joining a group of students to meet with the panel
- Taking part in meetings with the external examiner(s) for the course (such meetings may take place virtually)

The ways in which the quality of the University's courses is monitored and assured checked, both inside and outside the institution, are:

- Annual monitoring of units and courses
- Periodic Course review, at least every six years.
- External examiners, who produce an annual report
- Oversight by Academic Standards and Quality Committee (which includes student representation), reporting to Academic Board
- Professional body accreditation and annual reports to these bodies

A detailed Clinical Placement Agreement Form allows the assessment of a quality placement site. To ensure quality placement learning once the course has commenced, various methods are adopted throughout the year. We suggest the Clinical Placement site hold monthly meetings and book dates well in advance. This is to identify any areas of strength or opportunities for development that you think the student has/needs. This will give the student the opportunity to critically reflect on their practice and support decision making skills.

Progress reports are completed by both the student and the Practice Educator as well as Practice Educator questionnaires. These are read by the Course Lead and unit leads and any identifiable issue will be addressed with the relevant individuals e.g. placement site Practice Educator or student. End of term progress reports can be used to highlight any areas of concern, however any urgent issues affecting training should be communicated to the Breast Imaging team before the end of term report so these can be addressed as soon as possible. There may be occasions in placement when the performance of a student is such that additional action is required beyond the normal systems of support and assessment. In such cases Clinical Mentors and/or Clinical Managers are required to contact the Course Leader or course administrators to request a meeting with a Unit/Course Leader. This process aims to provide an early managed and focused response in situations where student performance requires additional attention beyond the normal systems of support and guidance. The process provides all parties with a formal way of addressing a range of concerns with a view to providing positive support to both the student and their clinical mentor. As such it is advised that the process should be triggered as soon as possible in order to allow the student to identify and respond to any concern(s). This allows us to acknowledge and record that concern regarding student progress in their clinical placement and ensuring the student receives appropriate support.

The placement site and student are provided with the statements below:

Student: Please reflect and comment on your training during this academic period in terms of supervised work, case mix, level of competency achieved and your progression.

Practice Educator: Please comment on your student's training during this term. Indicate if you have concerns that your student is not being exposed to a varied case mix. If you feel that the student may benefit in any way to enhance areas of concerns please comment and contact the Course Leader mlines@aecc.ac.uk

October	Student attends seminars and begins clinical placement.
December	End of term 1 **progression report** to be completed by student and Practice Educator.
February	**Mid-term online Practice Educator progress questionnaire** to be completed by Practice Educator.
March/April	End of term 2 **progression report** to be completed by student and Practice Educator.
March/April	**Mid-term online Practice Educator questionnaire** to be completed by Practice Educator including reporting on any mock assessments.
March	**First mock assessment** completed (results to be reported in Practice Educator's online progress questionnaire and assessment papers to be sent to administrator with end of term progress report).
April	**Second mock assessment** completed (results to be reported in Practice Educator's online progress questionnaire and assessment papers to be sent to administrator with end of term progress report).
April (End)	Record of Clinical Practice completed, signed off by Practice Educator and final copy submitted by student

May/June	Conduct of practical assessments
June-July	Remedial training for students who have failed the assessment
July/August	Re-assessments

14. Inclusivity statement

Health Sciences University (HSU) is committed to being an institution where students and staff from all backgrounds can flourish. HSU recognises the importance of equality of opportunity and promoting diversity, in accordance with our Dignity Diversity and Equality Policy. We are committed to a working and learning environment that is free from physical, verbal and non-verbal harassment and bullying of individuals on any grounds, and where everyone is treated with dignity and respect, within a positive and satisfying learning and working environment.

HSU seeks to ensure that all students admitted to our courses have the opportunity to fulfil their educational potential. The interests of students with protected characteristics will be taken into consideration and reasonable adjustments will be made provided that these do not compromise academic or professional standards as expressed through the learning outcomes.

15. External reference points

The following reference points were used to inform the development of this programme:

- The Framework for Higher Education Qualifications of UK Degree-Awarding Bodies (2014)
- There are no current specific subject benchmark statement for radiography as a healthcare profession. To guide the development of the course, QAA subject benchmark statements for comparable/allied professions (Nursing, Health Studies, Biomedical Science and Medicine) have been used.

The course is also designed to comply with the following professional standards:

- Clinical Guidelines for Breast Screening Assessment, 3rd edition. NHS Cancer Screening Programmes, 2010 (NHSBSP Publication No 49).
- Clinical guidance for breast cancer screening assessment, 4th edition. NHS Breast Screening Programme, 2016 (NHSBSP publication number 49).
- Quality Assurance Guidelines for Breast Cancer Screening Radiology, 2nd edition, 2011 (NHSBSP Publication No 59).
- Guidance on Screening and Symptomatic Breast Imaging, 4th edition. Royal College of Radiologists, 2019
- Breast screening: guidance for breast screening mammographers, 3rd Edition. Public Health England

16. Internal reference points and policy frameworks

Health Sciences University Strategic Plan

Health Sciences University Course Design Framework

Health Sciences University Feedback on Assessments policy

The course conforms fully with the University's academic policies and procedures applicable to Taught Courses.

Record of Modifications

Course level

Description of Modification	Date approved	Intake to which modification applies
Approval to deliver as standalone unit: BIM7005 Mammography in Practice	19 March 2023	September 2024 and all future cohorts
Amendment to ILOs- BIM7001 and BIM7002 Approval to deliver as standalone units: BMI7002 Imaging Guided Breast Intervention BIM7003 Mammography Image reading and reporting BIM7004 Clinical Breast Assessment and communication	14 August 2023	September 2023 and all future cohorts
Corrections to Unit Codes	NA- corrections- applied September 2023- no version change	September 2023 and all future cohorts
Removal of incorrect reference to CASE accreditation	NA- correction- applied December 2024 no version change	All cohorts
Modifications applied following Periodic Review of MSc Medical Ultrasound: • MUS7001- Amendment to assessment (now v3.0) • Amendment to ILOs and unit coding- MUS7021 [now MPH7005] and MUS7051 [now PSY7001] • MUS7052 replaced with MUS7065, amendment to assessment • New unit added- PPR7008 Service Improvement Project • Re-coding of MUS7053 Audit Methods and MUS7054 Clinical Audit to BIM7006 and BIM7007 respectively, both now owned by MSc Breast Imaging • Editorial Correction to unit coding- PGT7015 now MPH7008 (v1.1) and PGT7014 now MPH7009 (v1.1)	ASQC Chair's Action- 27 May 2025	Retrospective- September 2024 and all future cohorts

Unit level

Unit code and title	Nature of modification	Date of approval/ approving body	Intake to which modification applies

Appendix 1: Course Diagram MSc Breast Imaging

Entry →

Level 7

Core units

At least one application-specific Units*

Application specific units*:
Mammography in Practice (40)
Breast Ultrasound (40)‡
Imaging Guided Breast Intervention (20) **
Mammography Image Reading and Reporting (40)
Clinical Breast Assessment and Communication (20)

Required co-requisite with Breast Ultrasound:
Science and Instrumentation of Ultrasound (20)‡

Required co-requisite with Imaging Guided Breast Intervention when ultrasound guided intervention is selected as modality of choice:
Science and Instrumentation of Ultrasound (20)
Breast Ultrasound (40)

Non-application specific optional units:
+Leadership and interprofessional working (20)
+Professional Development (20)
+Evidence-based Practice (20)

Research Methods (20) and Dissertation (40)
Or
Research Methods (20) and Service Improvement Project (40)
or
Audit Methods (20) and Clinical Audit (40)

→

EXIT AWARD: PgCert

Exit qualification: PgCert Breast Imaging
Requires 60 Level 7 credits

To include:
1. at least **ONE** application-specific Unit*
2. as many other + or * Units, required to total 60 credits

OR
1. Science and Instrumentation of Ultrasound (20) AND
2. at least **ONE** application-specific Unit*
3. as many other + or * Units, required to total 60 credits

EXIT AWARD: PgDip

Exit qualification: PgDip Breast Imaging
Requires 120 Level 7 credits

To include:
1. at least **TWO** application-specific Units* **AND**
2. as many other + or * Units, required to total 120 credits

OR
1. Science and Instrumentation of Ultrasound (20) AND
2. at least **TWO** application-specific Unit*
3. as many other + or * Units, required to total 120 credits

EXIT AWARD: MSc

Conferment of Award/Graduation
MSc Breast Imaging
Requires 180 Level 7 credits

To include:
1. at least **TWO** application-specific Units*
2. any +Units to total 120 credits

OR
1. Science and Instrumentation of Ultrasound (20) AND
2. at least **TWO** application-specific Unit*
3. any +Unit, if required to total 120 credits

Research Methods ‡ (20) and Dissertation (40)
or
Audit Methods ‡ (20) and Clinical Audit (40)
or
Research Methods (20) and Service Improvement Project (40)

‡ Units marked with ‡ can be taken for the PgDip exit award or MSc exit award.
** To be able to declare this unit, the applicant must demonstrate that they have suitable qualification/experience/insurance to be able to perform injections.

Appendix 2: Learning outcomes mapping document template

This table shows where a learning outcome referenced in the course specification may be demonstrated by successful completion of a unit.

	Unit	Subject Knowledge and Understanding					Intellectual Skills					Practical Skills					Transferable Skills			Professional Skills	
		A 1	A 2	A 3	A 4	A 5	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C 4	C 5	D 1	D 2	D 3	E 1	E 2
MUS7001	Science and Instrumentation of Ultrasound	*	*				*					*	*				*	*	*		
MPH7009	Leadership and interprofessional working	*	*	*	*		*	*	*	*		*	*	*	*		*	*	*		
MPH7008	Professional Development	*	*				*	*	*						*	*	*	*	*		
MPH7005	Evidence-based Practice		*			*	*	*	*		*				*	*	*	*	*		
BIM7005	Mammography in Practice	*	*	*			*	*	*	*		*	*	*			*	*	*	*	*
BIM7001	Breast Ultrasound	*	*	*	*		*	*	*	*		*	*	*	*		*	*	*	*	*
BIM7002	Imaging Guided Breast Intervention	*	*	*	*		*	*	*	*		*	*	*	*		*	*	*	*	*
BIM7003	Mammography Image Reading and Reporting	*	*	*	*		*	*	*	*		*	*	*	*		*	*	*	*	*
BIM7004	Clinical Breast Assessment and Communication	*	*	*	*		*	*	*	*		*	*	*	*		*	*	*	*	*
PSY7001	Research Methods					*	*	*			*					*	*	*	*		
MUS7065	Dissertation		*			*	*	*	*		*					*	*	*	*		
BIM7006	Audit Methods					*	*	*			*					*	*	*	*		
BIM7007	Clinical Audit		*			*	*	*	*		*					*	*	*	*		
PPR7008	Service Improvement Project		*			*	*	*	*		*					*	*	*	*		

Appendix 3: Course summary

Course title: MSc Breast Imaging

Unit details			Core/ Option	Pre/ co requisite units	No of credits (level in brackets)	Assessment Element Weightings (%)*						Estimated learning hours		
Number	Title	Version no.				Cwk 1	Cwk 2	Prac 1	Oral Pres	Prac 3		scheduled contact	Directed non-contact) +	self-directed
MUS7001	Science and Instrumentation of Ultrasound	3.0	Option		20 (Level 7)	100		P/F				26		174
BIM7005	Mammography in Practice	1.0	Option		40 (Level 7)	100	P/F	P/F				75	50	275
BIM7001	Breast Ultrasound	1.1	Option	Co: 01	40 (Level 7)	100	P/F	P/F	100			16	50	334
BIM7002	Imaging Guided Breast Intervention	1.1	Option	Co: 01** Co: 48 **	20 (Level 7)	100	P/F	P/F				8	50	142
BIM7003	Mammography Image reading and Reporting	1.0	Option		40 (Level 7)	100	P/F	P/F		100		16	50	334
BIM7004	Clinical Breast Assessment and Communication	1.0	Option		20 (Level 7)	100	P/F	P/F				14	50	136
MPH7008	Professional Development	1.1	Option		20 (Level 7)	100						9	41	150
MPH7009	Leadership and Interprofessional Working	1.1	Option		20 (Level 7)	100						9	41	150
MPH7005	Evidence-based Practice	1.1	Option		20 (Level 7)	100						9	41	150
PSY7001	Research Methods	2.0	Option		20 (Level 7)	100						21		179
MUS7065	Dissertation	1.0	Option	Co: PSY7001	40 (Level 7)	100						0		400
BIM7006	Audit Methods	1.0	Option		20 (Level 7)	100						6		194
BIM7007	Clinical Audit	1.0	Option	Co: BIM7006	40 (Level 7)	100						0		400
PPR7008	Service Improvement Project	1.1	Option	Co: PSY7001	40 (level 7)	100						36	36	328

Exit qualification requirements: PgCert Breast Imaging Requires 60 credits at Level 7 to include successful completion of *at least ONE application-specific Unit**

PgDip Breast Imaging Requires 120 credits at Level 7 to include successful completion of *at least TWO application-specific Units**

Unit details			Core/ Option	Pre/ co requisite units	No of credits (level in brackets)	Assessment Element Weightings (%)*						Estimated learning hours		
Number	Title	Version no.				Cwk 1	Cwk 2	Prac 1	Oral Pres	Prac 3		scheduled contact	Directed non-contact) +	self-directed
MSc Breast Imaging Requires 180 credits at Level 7 to include successful completion of *at least TWO application-specific Units*, and either Research Methods and Dissertation or Audit Methods and Clinical Audit units.* **Exit qualification: MSc Breast Imaging**														

+Directed non-contact Learning Hours includes Clinical Placement hours

***This must be consistent with information provided in each unit specification**
For classifying assessment elements please use the following categorisations: Exam – written exam. **Coursework -** Written assignment, including essay, Report, Dissertation, Portfolio, Project. **Practical** - Oral assessment and presentation, Practical skills assessment. The total must add up to 100%. Please add additional columns if required

****These are only co-requisites if the modality of choice specified on the clinical placement agreement for is ultrasound guided intervention for assessment. Course Lead to notify admissions and registry on student pathway to include units needed to be enrolled on and assessment criteria.**

Scheduled Contact hours can include any elements listed below but it must be possible to show an audit trail to demonstrate that this is a scheduled activity (for example, session should be on a student or faculty timetable): Lecture, Seminar, Tutorial, Project supervision, Demonstration, Practical classes, Supervised time in studio/workshop, Fieldwork, External visits Total must add up to 200 hours for a 20 credit unit