Programme Specification: Post Graduate Taught

For students starting in Academic Year 2023/24

1. Course Summary

Names of programme and award title(s)	MSc Prosthetics and Orthotics
Award type	Taught Masters
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Normal length of the programme	Two years full time
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	This programme is accredited by The Health and Care Professionals Council (HCPC).
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Full-time fee for 2023/24 is £9,250 **International students:** Full-time fee for 2023/24 is £25,400

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

2. Overview of the Programme

Prosthetists and orthotists work with individuals to maximise quality of life by restoring limb loss or supporting impaired movement and function, by providing prostheses and orthoses to optimise mobility and functionality through support, replacement and education. Prosthetists and orthotists deliver high quality services to meet patient and population needs in accessible, responsive, timely ways.

This two year full-time pre-registration MSc Prosthetics & Orthotics programme reflects the need for **evidence-based treatment** options and the shift towards **innovation and technology** in the field. The programme is designed to ensure that its content is current, reflecting practice in the UK, and is sufficiently flexible to accommodate the changing demands of health and social care, industry and the future requirements of the profession, both in the UK and globally. The programme is committed to the development and provision of **high quality multi- and inter-professional learning**.

You will **develop responsibility** for the ownership, planning and implementation of your **own continuing professional development** and your studies will equip you to function effectively in partnership and **leadership** roles. The School of Allied Health Professions utilises a range of high-quality practice-based settings in order to deliver the practice placement component of the programme.

> *In your programme you may sometimes be expected to role play and engage in simulated clinical scenarios with other students, such as the practice and observation of practical skills in physical contact with other students. For some specific practices, this may necessitate modification of dress - e.g., to shorts and t-shirt. These activities will be conducted in a professional, safe, respectful and culturally sensitive way, under the supervision of academic staff, according to a defined protocol.*

3. Aims of the programme

The broad aims of this two-year MSc Prosthetics & Orthotics programme are to enable you to develop the **knowledge, skills, behaviours and values** that underpin contemporary prosthetics and orthotics **professional** practice and develop competence in **applying clinical skills** to the practice of prosthetics and orthotics. You will learn **clinical reasoning and decision-making skills** based on evidence-based practice to enable you to undertake best practice in **partnership with**

service users and colleagues. The programme will enable you to develop the **competencies required for autonomous practice** in the NHS, industry and other healthcare settings globally.

The programme aims to promote research awareness and its application to prosthetic and orthotic practice and the wider health and social care context and to provide you with the skills to adapt and respond positively to change. In doing this, you will develop key **transferable skills** to prepare you for graduate employment.

During the programme you will get opportunities to enhance the development of your interpersonal skills along with **effective team working** and partnership skills. This approach promotes engagement in lifelong learning, which is a key feature of the development of an autonomous health professional.

The programme promotes effective inter-professional working practices and facilitates the development of **leadership and management skills**.

Distinctive features of the Prosthetics & Orthotics programme at Keele are:

- The Keele MSc is the first pre-registration two-year programme for prosthetics and orthotics in the UK.
- Keele has a demonstrable track record of innovation in programme design. In the first year you will attend placement with a specific manufacturing focus, a unique feature of the Keele programme. That innovation is also evident in many aspects of their programmes, for example, modules such as Health, Wellbeing and Behaviour Change and Evaluating Healthcare and Evidence Based Practice continue that tradition. One of the second-year modules focuses solely on Innovation in Prosthetics & Orthotics.
- The programme has been co-designed with both clinical and industry partners to ensure it will be fit for purpose for contemporary prosthetic and orthotic practice across a range of practice bases.
- Responding to clinical and industry feedback, footwear is another particular focus of the programme, as is an emphasis on rehabilitation of the service user requiring prosthetic/ orthotic expertise.
- You will be taught in specialist P&O workshops; plaster and machine room as well as have access to a bespoke P&O patient assessment area and gait/ movement analysis laboratory facility on campus.
- Interprofessional education is designed to contribute to professional understanding and respect as students of various professions learn with, from and about each other for the benefit of patient care. This programme offers opportunities for inter-disciplinary education; some aspects of the programme being delivered alongside fellow health professional MSc Physiotherapy students, as well as other health professional students within the Faculty of Medicine and Health Sciences.
- A blended learning and teaching approach is adopted; sessions including practical in-situ teaching and seminars as well as combined synchronous and asynchronous online teaching and assessment.
- You will be taught and supported by a team with a strong tradition and track-record of excellent staff student relationships.
- Teaching from a range of highly skilled, highly qualified, and knowledgeable staff, some of whom are nationally and internationally recognised as experts in their field.
- You will undertake Practice placement in a variety of healthcare environments supported by accredited practice educators with extensive knowledge and experience in a range of clinical specialities.
- Support to develop analytical and reasoning skills that are transferable across the various aspects of prosthetics and orthotics practice and wider employment market. The opportunity to develop these skills is designed to support your capacity to practice effectively across your chosen career span.
- A comprehensive range of student support mechanisms.

The programme is designed to provide education and training that is approved by the Health and Care Professions Council (HCPC) and accredited by the British Association of Prosthetics & Orthotics (BAPO), therefore allowing the title of 'Prosthetist and Orthotist' to be awarded on successful completion.

The MSc Prosthetics & Orthotics programme at Keele will, in an **environment of reflection and research awareness**, enable you to develop into an autonomous professional who is able to initiate and respond to change in a wide variety of settings. As a student you will embrace a vision of patient-centred care within contemporary health and social care environments. You will develop the attributes of a competent practitioner underpinned by knowledge enabling you to become, and remain, fit for purpose, delivering high quality, safe, integrated and effective care.

The programme is designed to meet the Health and Care Professions Council's [HCPC] Standards of Education and Training [2017] therefore graduates of the programme will be equipped to meet the:

- HCPC Standards of Proficiency - Prosthetics & Orthotics (2013)
- HCPC Standards of Conduct, Performance and Ethics (2016).
- British Association of Prosthetists & Orthotists Standards of Best Practice (2018)

These elements are taught, developed and assessed via individual modules and their inter relationships across the programme. Achievement of outcomes that support the development of these elements allows you to successfully meet the HCPC standards of prosthetic and orthotic proficiency: https://www.hcpc-uk.org/globalassets/resources/standards/standards-of-proficiency---prosthetists-and-orthotists.pdf?v=637106257810000000

As such you must:

- Be able to practice safely and effectively within scope of practice
- Be able to practice within legal and ethical boundaries
- Be able to maintain fitness to practise
- Be able to practice as an autonomous professional exercising own professional judgement
- Be aware of the impact of culture, equality, and diversity on practice
- Be able to practice in a non-discriminatory manner
- Understand the importance of and be able to maintain confidentiality
- Being able to communicate effectively
- Be able to work appropriately with others
- Be able to maintain records appropriately

- Be able to reflect on and review practice
- Be able to assure the quality of their practice
- Understand the key concepts of the knowledge base relevant to their profession
- Be able to draw on appropriate knowledge and skills to inform practice
- Understand the need to establish and maintain a safe practice environment

4. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to:

- Demonstrate flexibility as an enquiring evidence-based practitioner, who reflects on their practice, and consistently critical analyses existing practice.
- Deliver safe, ethical and effective practice as an independent prosthetic and orthotic practitioner.

Subject specific skills

Successful students will be able to:

- Plan, implement, critically appraise and modify, as necessary, a client-centred, Prosthetic & Orthotic treatment plan (including for complex patients) informed by clinical assessment, examination and evidence.
- Collaborate with a variety of audiences and, where appropriate, communicate specialist knowledge effectively with a range of professional and non-professional stakeholders in a variety of cultural and practice settings using appropriate modes and media.
- Innovate P&O practice by applying new research evidence to promote and inform enhanced patient care.
- Critically apply both clinical and technical knowledge/ skills and advanced problem-solving skills to design, prescribe and evaluate complex prosthetic and orthotic service provision.

Key or transferable skills (including employability skills)

Successful students will be able to:

- Demonstrate excellent team working and evolving leadership skills within a multidisciplinary environment.

The programme learning outcomes are achieved via compulsory modules which all students are required to take. Key learning outcomes must be met within and across the programme.

Keele Graduate attributes

Engagement with this programme will enable you to develop your intellectual, personal and professional capabilities. At Keele, we call these our ten Graduate Attributes and they include independent thinking, synthesizing information, creative problem solving, communicating clearly, and appreciating the social, environmental and global implications of your studies and activities. Our educational programme and learning environment is designed to help you to become a well-rounded graduate who is capable of making a positive and valued contribution in a complex and rapidly changing world, whichever spheres of life you engage in after your studies are completed.

Further information about the Keele Graduate Attributes can be found here: http://www.keele.ac.uk/journey/

5. How is the programme taught?

The programme is structured around key elements of prosthetics and orthotics practice which are introduced, developed and enhanced via individual modules over the two-year programme. Learning and teaching methods used in the programme vary according to the subject matter of the module. Teaching is undertaken in both the university and clinical environments. All teaching is designed to integrate university learning and learning undertaken in practice settings.

Prosthetic and orthotics practical skills are taught in small groups in the university, as are some other areas of the programme. The number of students within these groups is variable depending upon subject matter. In the practice setting you will work with designated practice educators, supported by visiting tutors from the School and from industry. University based elements of the programme are taught using a variety of approaches including:

- **Lectures** where the lecturer provides you with a framework and context for further reading and independent study. Various formats will be adopted including for example, **interactive lectures** designed to engage you in your learning, for example the use of audience response systems (quizzes/ voting etc) and a range of other media. National experts will also be invited to lecture as **external speakers**. These individuals may be patients/ service users, clinicians, active researchers, academics and related health and social care practitioners, all offer invaluable perspectives designed to enhance your practice.

- **Practical work** allows you to observe the application of / develop the acquisition of prosthetic and orthotic practical skills under the supervision of academic staff.
- **Learning in the practice environment** (Practice placement) where you can develop your clinical and professional skills under the supervision of a designated practice educator(s).
- **Small group workshops** when you will work together with other students to, for example, critically appraise papers relating to some aspect of prosthetic and orthotic practice.
- **Group workshops** which require you to work together over an extended period to develop a piece of work which you subsequently present/ defend.
- **Individual and group presentations** where you will research and present a topic with relevance to practice (for example specific approaches to communication or reasoning for particular approaches in prosthetic and orthotic research) to the whole group with time allowed for interactive questions and discussion.
- **Student and tutor-led tutorials** which encourage topics of interest and relevance to a module to be discussed in depth within a small group; problem-solving scenarios and case studies may be used as a vehicle for such discussion.
- **Inter-professional educational (IPE) opportunities -** You will also participate in IPE with colleagues from other health and social care disciplines across the Faculty of Medicine and Health Sciences and University, enabling you to learn with, and from future health professional colleagues.
- **Web-based learning** using the Keele Virtual Learning Environment (KLE) and Microsoft Teams: both are used by all modules and provides a platform for students to share online discussions and to access a wide range of learning resources. In addition, web-based audience feedback systems are used to support and monitor learning. "Lecture Capture" via recording of online teaching and video resources are also important adjuncts that are available to support your learning.
- **Independent study** will be required in each module; some study will be guided by tutors where necessary but will also be self-directed in relation to the various demands of each module and its assessment. This type of learning may be facilitated by use of various resources such as work packages and access to specific web-based programmes. Independent study also forms an important part of the development of the final year research project, which is supported by a designated member of the academic staff.

Apart from these formal activities, one-to-one tutorials are available to support you on an individual basis, on request. This approach is designed to enable you to discuss any particular identified areas of difficulty, and particular learning needs. These tutorials will also give you feedback related to assessed work and support you in the development of strategies to manage your learning (e.g., writing action plans and portfolio use).

These learning and teaching methods enable you to achieve learning outcomes of the programme in a variety of ways. For example:

- Lectures and independent study enable you to broaden and deepen your existing professional knowledge and understanding of the core scientific principles and concepts of prosthetics and orthotics, and to transfer scientific knowledge from theory into practice.
- Practical work in both university and clinical environments supports you to develop, enhance and update your learning of new skills under the supervision of experts. It facilitates the development of safe and competent practice, and the integration of theoretical and practical knowledge and skills.
- Focussing on the management of common pathologies whilst demonstrating the transferability of these skills to the management of less common or multiple complex pathologies.
- Small group work, such as seminars, and workshops, provides opportunities for you to clarify and exchange ideas with both peers and staff, and to question and challenge professional concepts.
- Guided independent study and tutorials will assist you to explore in depth, and evaluate, aspects of professional practice.
- Seminars, tutorials and web-based e-learning activities encourage reflection upon your learning and to take responsibility for its development, and to collaborate with others to share, explore, and evaluate ideas in greater depth.

6. Teaching Staff

Programme Team: The permanent academic staff contributing to the programme are drawn from the University's School of Allied Health Professions along with contributions from specialist experts when appropriate. The school team includes professors, senior lecturers, lecturers (Education and Research and Education and Scholarship) as well as professional support services staff.

All current permanent academic staff are fellows of, or are working towards, Fellowship of the Higher Education Academy. All current permanent academic staff hold (or are working towards) academic qualifications to at least Master's degree level and many staff hold or are working towards a doctoral qualification. Academic staff specifically supporting the MSc Prosthetics & Orthotics programme currently give a 1: 7 staff student ratio for the programme.

All staff who are prosthetists or orthotists are HCPC registered and have had experience working in the NHS and/or other areas of healthcare/ industry. The academic staff group within the school also currently includes staff from the following professional disciplines: Physiotherapy, Radiography (Diagnostic Imaging), Bioengineering and Exercise Physiology. The staff group has extensive experience of teaching at undergraduate and postgraduate level and includes individuals with expertise in learning and teaching and research. The work of research active staff has been widely published and disseminated internationally, including via conference presentations.

Several current staff are active members of national clinical specialist interest groups. The Chair of the Staffordshire Stoke on Trent AHP (Allied Health Professions) Faculty, and Council for Allied Health Professional Research (CAHPR) Regional Hub Leads area permanent senior members of academic staff in the school.

The practice component of the programme is delivered and assessed by a range of Practice Educators. These are suitably experienced practitioners working across a broad range of practice environments. All will undertake the school's Practice Educators training course and be offered regular updates.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate

academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

7. What is the structure of the programme?

The programme commences in January and each year is divided into two semesters, this programme runs over an extended academic year, with reduced vacation periods, when compared to other three and four-year programmes in the University.

Our degree courses are organised into modules. Each module is usually a self-contained unit of study, and each is usually assessed separately with the award of credits based on 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

The programme is studied full time over two extended academic years and teaching is delivered via individual modules. Each year is arranged into two units called blocks which vary in length. In each academic year time is spent in both the university and practice settings (see Table 2 for exact number of weeks normally spent in each setting).

Please refer to:

1. **Appendix A** - Prosthetic & Orthotic-specific modules: Intended Learning Outcomes (ILOs) and assessment strategy in each year of the Programme.
2. **Appendix B** - Overview of all modules, credit values and assessments across the MSc programme.

Distribution of Programme Weeks [excluding assessment periods]

Year of Study	Framework for Higher Education Qualifications (FHEQ level)	Number of weeks based in university setting (inc assessment weeks).	Number of weeks based in Practice Placement settings (37.5 hour weeks)	Total number of weeks
1	7	32	6 (Level 6)	38
2	7	20	21 (Level 6)	41
Total		52	27 (Level 6)	79

The course is structured around key aspects of prosthetic and orthotic practice including:

- A fundamental understanding of biomechanical and human sciences
- A strong grasp of physical assessment skills, product knowledge and clinical reasoning
- A repertoire of safe and effective prosthetic and orthotic device prescriptions based on individuals' specific requirements
- Evidence based evaluation and discharge/modification skills
- Professional effective communication and inter-personal skills
- Research and analysis skills
- Inter-professional learning and education

These are introduced, developed and enhanced via individual modules (see Table 3) over the two-year programme; each year carries 90 credits.

For further information on the content of modules currently offered please visit: www.keele.ac.uk/recordsandexams/az

Programme modules, Framework for Higher Education Qualifications (FHEQ) level with Credit Value:

Year 1: Modules (all compulsory)	FHEQ Level	Semester	Credits
Pre arrival introduction and work packages	N/A		0
PTY-40078 Transition into Prosthetics & Orthotics	7	2	15
PTY-40080 Essentials of Prosthetics & Orthotics Assessment	7	2	15
PTY-40088 Health, Wellbeing and Behaviour Change	7	2	15
PTY-30078 P&O Practice Placement 1 (Clinical orientation)	6	2	Pass/Fail 0
PTY-30082 P&O Practice Placement 2 (Includes Interprofessional Education)	6	2	Pass/Fail 0
PTY-40082 Prosthetics and Orthotics Management	7	1	15
PTY-40090 Spinal and Upper Limb Orthotics and Prosthetics	7	1	15
PTY-40092 Evaluating Healthcare and Evidence Based Practice (P&O)	7	1	15
Total			90

Year 2: Modules (all compulsory)	FHEQ Level	Semester	Credits
PTY-40098 Advanced Prescription in Prosthetics and Orthotics*	7	2	15
PTY-40094 Research Proposal (P&O)	7	2	15
PTY-30080 P&O Practice Placement 3 (Manufacturing)	6	2	Pass/Fail 0
PTY-30098 P&O Practice Placement 4 (Includes Interprofessional Education)	6	2	Pass/Fail 0
PTY-30084 P&O Practice Placement 5 (Includes Interprofessional Education)	6	2	Pass/Fail 0
PTY-40096 Research Project (Level7) (P&O)	7	1	30
PTY-40084 Innovations in Prosthetic and Orthotic Assessment	7	1	15
PTY-40086 Leadership and Service Development - P&O	7	1	15
PTY-30076 P&O Practice Placement 6	7	1	Pass/Fail 0
PTY-30086 P&O Practice Placement 7	6	1	Pass/Fail 0
Total			90

NB: new starters in January 2025 will follow the 2024/25 programme specification with changes in the position of modules in Block A,B,C & Block D

Please note the placements and shared modules remain constant across all year groups (current 1st and 2nd year and the newly recruited cohort for January 2025)

8. Final and intermediate awards

The programme is designed to educate prosthetic and orthotic practitioners. Consequently, the expectation is that you will complete the full programme of study obtaining 180 credits, successfully complete all practice placements and so be eligible to be awarded the MSc Prosthetics & Orthotics. A student completing all academic modules and thus obtaining 180 credits, but not successfully completing all practice placements, can be awarded an MSc in Rehabilitation Technology.

You should accumulate 90 credits per academic year. If you leave the programme before completing 180 credits, you may be eligible for an alternative award. **NB: Prosthetists and Orthotists must however, complete an approved programme of study in order to be eligible to apply for professional registration and so use the title 'Prosthetist/Orthotist'.** Consequently, any interim/alternative award will not contain the term 'Prosthetist or Orthotist'.

If you are unable to progress but have completed 60 credits, you can be awarded a PG Certificate in Rehabilitation Technology.

If you are unable to progress but have completed 120 credits, you can be awarded a PG Diploma in Rehabilitation Technology.

Award	Credits achieved	Additional information
MSc Prosthetics and Orthotics	180 credits plus a minimum of 1,000 hours Practice placement	You will require at least 180 credits at level 7 plus a minimum 1,000-hour practice placement at Pass grade. Graduates are eligible to apply for registration with the HCPC. On successful registration graduates are entitled to practice Prosthetics & Orthotics in the UK and apply for membership from BAPO.
MSc in Rehabilitation Technology	180 credits	For students achieving all academic module credits, but unable to successfully complete all practice placement modules.
Postgraduate Diploma in Rehabilitation Technology	120 credits	For students achieving 120 academic module credits, but unable to progress/ complete 180 credits
Postgraduate Certificate in Rehabilitation Technology	60 Credits	For students achieving 60 academic module credits, but unable to progress/ complete 120 credits

9. How is the Programme Assessed?

The wide variety of assessment methods used on this programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand

and helps you to improve your performance. The following list is representative of the variety of assessment methods used on your programme:

- **Written work/ assignments** test the quality and application of subject knowledge. In addition, they allow you to demonstrate your ability to carry out basic literature searches, communicate your ideas effectively in writing and support your arguments with appropriate referencing. Written pieces vary in their length depending upon the module.
- **Written Examinations** are undertaken in a range of different formats and include online multiple-choice examinations, logbook, critical analysis reports as well as web-based peer assessment, essay and short answer questions. This type of assessment is designed to test your knowledge and (as appropriate), your ability to apply that knowledge appropriately to professional practice.
- **Reflective assignments** enable you to develop your skills of reflective learning and practice and support portfolio development. These are fundamental skills used by all health care professionals as part of their continuing professional development.
- **Oral exams/ presentations** assess your subject knowledge and understanding and ability to apply this knowledge in a specific context. They may also be used to test your ability to work effectively as a member of a team, to communicate what you know orally and visually, and to reflect on these processes as part of your own personal development.
- **Practical Examinations/ Interactive Practical Assessment [IPA]** - these occur in modules that involve the teaching and learning of practical clinical skills These examinations enable you to demonstrate the safe and effective application of practical clinical skills, to justify your clinical choices and offer reasoned alternatives.
- **Research project** is a student led piece of independent research. Nominated supervisors support you throughout the process, which includes gaining ethical approval from the Student Project Ethics Committee (SPEC) within the School of Allied Health Professions or other appropriate ethics committee. This assessment develops capacity as an independent learner and ability to engage in the research process. It also develops IT skills in use of various software for presentation and data analysis (e.g., Word, Excel, SPSS).
- **Practice placement assessment** is undertaken during placement modules via criterion referenced assessment forms and enables you to demonstrate the safe and effective application of professional practice and skills.
- **Online assessments:** multiple choice questions (MCQ's).

Marks are awarded for summative assessments[1] designed to assess your achievement of learning outcomes. You will also be assessed formatively[2] to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

[1] Summative assessment - the assessment of your performance against a standard where a final mark is awarded.

[2] Formative assessment - informal assessment processes designed to provide you feedback to improve your learning.

10. Accreditation

This programme is accredited by The Health and Care Professionals Council (HCPC).

As an accredited course, students upon successful completion of the MSc (pre-reg) Programme are able to register with HCPC and practice as a Prosthetist/Orthotist. Prosthetist/ Orthotist clinicians are required to be registered with HCPC to enable them to practice.

11. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

12. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme: https://www.keele.ac.uk/study/

Applicants must be able to satisfy the general requirements of Keele University and the School of Allied Health Professions.

Suitable qualifications for entry include:

- individuals with a 2:1 undergraduate degree (or above) in an appropriate science or exercise-based subject OR
- individuals with a 2:2 undergraduate degree in an appropriate science or exercise-based subject with a minimum of 2 years relevant experience AND evidence of continued professional development (CPD) activity.
- Successful completion of a 2/3-year diploma [or equivalent] in Prosthetics and Orthotics.

All offers are normally conditional upon the applicant having a satisfactory Occupational Health assessment, and an enhanced clearance by the Disclosure and Barring Service (DBS).

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 7.0 (to include a minimum of 6.5 in each subtest) or equivalent.

English for Academic Purposes

Please note: All new international students entering the university will sit a diagnostic language assessment. Using this assessment, the Language Centre may allocate you to an English language module which will become compulsory. *NB:* students can take an EAP module only with the approval of the English Language Programme Director and are not able to take

any other Language modules in the same academic year.

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

13. How are students supported on the programme?

The School provides a comprehensive range of support for your learning on the Programme in addition to that provided by the University. Key to the success of this support is the following:

- As a student you are allocated to an Academic Mentor who is responsible for reviewing and advising on academic and practice progress.
- In addition to Academic Mentors, the School has a dedicated Student Experience and Support Officer (SESO) who acts as a first point of contact for non- academic issues which may affect student learning and provide pastoral support. The SESO can refer you on to a range of specialist health, welfare and financial services coordinated by the University's Student Services.
- Module Leaders provide support for learning on the modules and the related assessments. They ensure that appropriate, tutorial support is available via the module team and that the team provides feedback in a timely manner. Module leaders also ensure that individual feedback on in-course assessments is available to all students.
- The School Disability Liaison Officer (DLO) provides support for students with disabilities (including specific learning difficulties) and works closely with wider university student support staff.
- As a first-year student you will be offered a student mentor.
- Practice Educators provide supervision whilst you are on clinical placement.
- Visiting Tutors liaise between the School and Clinical Bases and provide you with support during clinical placements.

Throughout the year members of academic staff operate an 'open door' policy during normal working hours. All members of academic staff are available to see you on an individual basis (exceptionally also outside normal working hours) via a negotiated flexible appointments system. Those meetings may be face to face or can be facilitated via electronic media e.g. Microsoft Teams meetings if you are, for example, on a placement that is distant from the university.

14. Learning Resources

The programme is delivered in bespoke teaching accommodation on campus. Dedicated space includes a machine room, a plaster workshop, and a patient assessment area, as well as access to modern teaching rooms in the School of Allied Health Professions. An additional Faculty resource available to you is a gait laboratory available for both teaching and research purposes. All rooms are equipped with computers, internet access and projection equipment. Rooms are designed to be flexible and can be used for larger groups, and more informally for small groups working together. The learning resources available to you on the programme include:

- An extensive collection of materials relevant to postgraduate study held in both the main University Library on Keele campus, and in the Health Library on the campus of the University Hospital of North Midlands NHS Trust. Access to a wide selection of online resources, e-books and print books, also accessible online to all registered students and are accessible from anywhere in the world with a university username and password and internet access.
- The Keele Virtual Learning Environment (KLE) and MS Teams provides easy access to a wide range of learning resources including lecture notes, presentations and discussion boards enabling you and tutors to discuss topics; all information about the programme; and all modules and other materials designed specifically for particular modules. It can also be used to develop reusable learning objects (RLOs) and integrate learning with assessment.
- The School of Allied Health Professions has a wide range of relevant teaching materials available including a plaster workshop and machine room, a large selection of anatomical models, video and DVD materials, ALS Patient Simulator, adjustable plinths. A School and faculty gait laboratory will also be available to you.
- Computers for your use are situated in both the Main Library, in the Health Library and in the Turin lab in the Colin Reeves building on campus.

15. Other Learning Opportunities

Some students may have the opportunity and are encouraged to present their final year project work via poster or presentation at conferences. A contribution from the School towards the costs incurred by students in these ventures may be available, and will be considered on an individual basis. Such opportunities occur outside the normal timetabled programme; thus, a commitment of time will be required from students.

16. Additional Costs

During the programme there will be some additional mandatory costs incurred: -

- There are some associated costs with attending Practice placement modules related to both travel expenses and accommodation. At the time of writing [academic year 2020-21] either travel or accommodation expenses are met by the NHS. Department of Health funding arrangements are reviewed on an annual basis.
- Many students continue to fund their own university/ private accommodation whilst accessing additional accommodation for less local Practice placement settings.
- Student membership of the British association of Prosthetics & Orthotics is paid directly to BAPO and currently costs £46.80 per year [2021 rates].
- Subscription to the Disclosure and Barring update service is a requirement. Students will be provided with instructions on how to apply for a DBS check, including a link to apply via a company called UCheck. There is also an online DBS update service to sign up for once the DBS certificate has been received, which allows employers to check DBS status and lets students keep their DBS certificates up to date online. The costs are an initial £45.40 plus £3.80 for a digital ID check (the preferred option) totalling £49.20 for the enhanced DBS check, plus £13 per year for the update service. [2022-23 rates]

- Various vaccinations must be completed before you undertake your first Practice placement module. Further details will be supplied by the University Occupational Health Department. These vaccinations are required to protect you, your family, and your patients from infections and/or diseases that you may be exposed to whilst working as a student health professional. Obtaining these vaccinations and evidence of their completion is your responsibility and may be completed with your GP (General Practitioner) who is likely to charge for these services. You are advised to check the cost and feasibility of receiving these vaccinations at your GP practice. If you are unable to obtain vaccinations via your GP, we will be able to arrange for you to receive them at the University, but you should be aware that you will be responsible for the cost incurred. Occupational Health screening costs will be met by the School.
- You will be required to purchase an approved uniform to be worn for your Practice placement modules [and for some practical classes and examinations in the University setting].

Clothing and Equipment for practical sessions: You need to ensure you have the following items:

- Plain white T-shirt / polo shirt with Keele Brand motif x2
- Navy / black combat style workshop trousers x2
- Safety shoes (students not admitted to workshop facility without these).
- Optional Prosthetics and Orthotics Hoody
- A link to an online store to our external provider is in our pre-arrival information.

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation. We do not anticipate any further costs for this programme.

17. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Revalidation process.
- The programme is subject to annual monitoring by the HCPC.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual Postgraduate Taught Experience Survey (PTES), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students on the programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:
http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

18. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: http://www.qaa.ac.uk/quality-code
b. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

In addition:

1. Health, disability and becoming a health and care professional. Available at: Click here
2. Career Framework for Health Descriptors, Skills for Health (2020). Available at: Download here (skillsforhealth.org.uk)
3. Delivering the Forward View: NHS Planning Guidance 2016/17 - 2020/21, NHS England (2015). Available at: Click Here
4. Health and Social Care Act (2012). Department of Health Available at: .Gov link
5. Health and Social Care (Safety and Quality) Act (2015). Department of Health Download here
6. Career Framework Guide for Prosthetists and Orthotists (2014) Health Education North West. Available at: Career Framework Guide
7. Educational Framework Guide for Prosthetists and Orthotists (2013) Health Education North West. Available at:

http://www.ewin.nhs.uk/sites/default/files/Prosthetists%20and%20Orthotists%20Education%20Framework%20Guide.pdf
8. British Association of Prosthetists and Orthotists Ethical Code. Available at: Click here for download
9. Allied Health Professions (AHPs) into Action (2017) Using Allied Health Professionals to transform health, care and wellbeing. Available at: AHP Action transformation
10. British Association of Prosthetists and Orthotists Standards of Best Practice in Prosthetics & Orthotics. Available at: Click Here for Download
11. Standards of Conduct, Performance and Ethics (2016) Health and Care Professions Council. Available at: Click Here
12. Standards of Education and Training, Health and Care Professions Council (2017) Available at: Click Here
13. Prosthetist and Orthotist Standards of Proficiency, Health and Care Professions Council (2013) Available at: Click Here
14. The Equality Act (2010) Available at: https://www.gov.uk/guidance/equality-act-2010-guidance
15. World Report On Disability. World Health Organisation (2011) Available at: Download link here

19. Appendix A - Overview of Intended Learning Outcomes (ILOs)

Appendix A: Overview of Module Intended Learning Outcomes (ILOs) with associated Assessment

ILOs	Transition into Prosthetics & Orthotics	Essentials of Prosthetics & Orthotics Assessment	Prosthetics and Orthotics Management	Spinal and Upper limb Orthotics and Prosthetics	Innovations in Prosthetic and Orthotic Assessment	Advanced Prescription in Prosthetics and Orthotics
1	Evaluate the role of reflective practice, CPD (Continued Professional Development) and lifelong learning within healthcare.	Critically appraise, distinguish between and be able to demonstrate a range of P&O assessment techniques and measurements and differing casting techniques for lower limb.	Synthesise anatomy and pathophysiology knowledge and interpret assessment findings, to propose a problem list which meets the needs and goals of the service user/s.	Critically discuss the complexity of upper limb and/or spinal anatomy and biomechanics in the context of a prosthetic & orthotic (P&O) assessment and management plan	Critically evaluate casting options for most common upper and lower limb prostheses.	Critically apply knowledge of anatomy, physiology, biomechanics and advanced special tests to propose an appropriate assessment and management plan for a patient with complex needs.
2	Evaluate the importance of professionalism, ethics, and governance in healthcare.	Assess a service user (consultation and clinical examination) with a P&O need holistically and prioritise problems. This should take into account psycho-social factors and include history of pathology e.g., trauma, age, capacity, learning ability, outcome desired as well as physical ability.	From analysis of assessment, develop and design an evidence-based service user-centred treatment plan (to include rehabilitation where appropriate)	Synthesise and apply knowledge of pathophysiology to interpret a clinical presentation and justify the principles of management of service users with spinal/ upper limb conditions.	Debate and justify methods of movement data capture/ analysis used in some clinical practice and for research.	Synthesise anatomy, physiology, biomechanics knowledge and rationalise assessment findings to provide a critically reasoned differential diagnosis, formulate and justify a clinically reasoned problem list for a complex patient.
3	Critically analyse the importance of effective communication skills in enhancing health professional practice.	Applying condition specific & biomechanical knowledge, analyse and integrate the findings of a prosthetic/orthotic assessment to accurately identify a client's problems / diagnosis.	Synthesise knowledge relating to components, design features and the properties of materials used to justify the fabrication materials selected when providing P&O devices	Integrate findings from a P&O assessment to prescribe, design and critically justify an evidence-based client-centred treatment plan to meet the needs and goals of the service user.	Distinguish and discern advantages of advancement of P&O manufacturing materials used in P&O innovations in clinical practice.	Justify the adaptation of a technical design and prescription of P&O devices within the context of a complex case scenario.

4	Integrate and apply knowledge of musculoskeletal, cardiovascular, respiratory, and neurological anatomy and physiology in healthy individuals.	Evaluate an individual's physical capabilities in context to pathophysiology.	Fabricate P&O devices, safely and effectively, demonstrating technical understanding in relation to fit and function (prescription).	Demonstrate the capacity to critically analyse and debate when to modify, progress or discontinue treatment appropriately.	Critically evaluate different measurement and fabrication adjustment for the most common upper and lower limb orthoses.	Integrate an individual's social/environmental factors and the promotion of patient function, activity and participation into the management of a patient with complex needs.
5	Integrate and apply knowledge of lower limb and spinal anatomy and physiology and biomechanical concepts.	Professionally demonstrate effective communication skills.	Based on the analysis of case scenarios /expert patients, evaluate and debate the fit and function of P&O devices, and demonstrate the ability to adjust the fit when providing devices, to take account of an individual's diverse needs.			
6		Engage the service user in the planning and undertaking of diagnostic assessment techniques and relevant measurements to propose a mutually agreed management plan.	Adjust alignment of a lower limb P&O device to alter ground reaction forces to optimise gait patterns.			

20. Appendix B - Module Assessment Strategy

Appendix B: Module Assessment Strategy

MSc Prosthetics and Orthotics	**Block A [Year 1 Semester 2 - January]**			**Block B [Year 1 Semester 1 - September]**			
Assessment strategies	1,000-word evidence based reflection relating to the importance of professional communication /action plan.	60 min exam - 10 min watching a video analysis of a service user assessment with 20 mins reflection time for student to make notes. This will be followed by 30 mins of an interactive practical examination to include a critical discussion with an examiner exploring student knowledge, clinical reasoning and demonstration of an assessment technique/s.	A campus-based practical exam starting with 30 mins preparation time planning a management plan from a sample of seen paper service-user scenarios. Followed by 30 min interactive practical exam when students will discuss and justify their proposed management strategies, critically analyse relevant anatomy and patho-physiology, justify components and materials used and demonstrate skills to rectify/ adjust devices to optimise service-user gait patterns.	3,000-word critical analysis and justification of an evidence-based management plan for a seen spinal and an upper limb case scenario to include progression of treatment.	Part 1 - Workbook of both P&O case histories (minimum of 10) illustrating critical evaluation of P&O innovations. This will also include some cases relating to biomechanical assessment/ data relating to movement analysis. The content may be based on clinical placement patient observations, gait laboratory and /or module teaching data. Part 2 - A 2,000-word critical patient report with justification for use of innovative assessment technique or management approach.	1 hour examination: 30-minute preparation period to review an unseen complex case. 30-minute critical discussion to present and justify an evidence-based management plan. Student has access to prepared evidence portfolio during preparation period.	
	Pre arrival induction and work packages 30 min online MCQ Assessment						
	Transition into Prosthetics and Orthotics Assessment: Online 30 min MCQ A&P test + 1,000 word evidenced reflection			**Spinal and Upper Limb Orthotics and Prosthetics** Assessment: 3,000-word critical analysis and justification of practical management plan			15 credits
	Essentials of Prosthetics and Orthotics Assessment Assessment: 60 min Video analysis /Interactive Practical exam		15 credits	**Prosthetics and Orthotics management** Assessment: 60 min interactive practical exam-sampling management strategies from paper patient scenarios			15 credits
Year 1 **Level 7**							
	Health, Wellbeing and Behaviour Change Assessment: 3,000-word essay		15 credits	Competency Development Workshops			
	P&O Practice Placement 1 (Clinical orientation) (Start workbook of case scenarios)		0 credits				
	P&O Practice Placement 2 (Clinical) (Continuation of workbook case scenarios)		0 credits				
	Evaluating Healthcare and Evidence Based Practice Assessment: Poster (groupwork prep) + individual presentation (20 min +10 min Q&A)						15 credits
Total Level 7 credits							**90 credits**
MSc Prosthetics and Orthotics	**Block C [Year 2 Semester 2 - January]**			**Block D [Year 2 Semester 1 - September]**			

Year 2 **Level 7**	**Innovations in Prosthetic and Orthotic Assessment** Assessment: Part 1 - workbook based on clinical placement innovations and patient assessment data Part 2 - 2,000-word critical analysis & justification for allocated assistive device	15 credits	**Leadership and Service Development** Assessment: 30 min individual oral presentation 20 min critical evaluation of a service + 10 min Q&A	15 credits
	Research Proposal Assessment: 2000-word proposal inc. 500-word rationale	15 credits	**Advanced Prescription in Prosthetics and Orthotics** Assessment: 1 hour examination 30 min critical discussion based on an unseen case (Includes 30 min prep period with student prep evidence portfolio)	15 credits
	Interprofessional Education	0 credits	**Research Project** Assessment: 4,500-word Research project	30 credits
	Competency Development Workshops		Transition to practice	
	P&O Practice Placement 3 (manufacturing) Criterion referenced assessment	0 credits	Competency Refinement Workshops	
	P&O Practice Placement 4 (Clinical) (Continuation of workbook case scenarios)	0 credits	**P&O Practice Placement 6** (Continuation of workbook case scenarios)	0 credits
	P&O Practice Placement 5 (Clinical) Criterion referenced assessment	0 credits	**P&O Practice Placement 7 (Clinical)** Criterion referenced assessment	0 credits
Total Level 7 credits				**90 credits**

Version History

This document

Date Approved: 01 August 2024

What's Changed

Changes to schedule of modules from January 2025 with Innovations in Prosthetics and Orthotics PTY-40084 moves from block C to block D and Advanced Prescription in P&O moved from block D to block C. This applies to first years transitioning into the second year.

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.1	2023/24	MARK MCALOON	07 August 2023	Placement changes in aligned programmes needed to occur, which had a knock on effect to shared modules across the school. This required semester changes to some of the placements and modules within the P&O programme (see below). Please note these changes will be staggered over AY2023-24 and AY2024-25 before they all come into full effect. This is due to the fact that the year 2 cohort have already successfully completed some of the modules in Block C, that will require moving to block D in AY2024-25 for the following cohort. As such, further module semester changes will be required for 2024-25 (when the current first year will move into second year). NB: PTY-40086 (Leadership and Service Development) moves from semester 2 (Block C January-May), to Semester 1 (Block D September-December from January 2024). This module has already been undertaken by the second year cohort of 2023 in Semester 2 (Block C), therefore this specific module change will not occur until January 2024 when the current first year cohort move into their second year of study. In effect, due to the above for Sept-December 2023 (year 2 cohort) this should not be listed in the KLE as a module in this semester (as already undertaken by this group). This also applies to POP3, POP4 & POP6 changes only occurring in January 2024 when the current first year cohort move into their second year of studies.
1	2023/24	MARK MCALOON	17 April 2023	
1	2022/23	MARK MCALOON	19 August 2022	