

Course Information Document: Undergraduate

For students starting in Academic Year 2024/25

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Pharmaceutical Science
Award type	Single Honours
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Normal length of the programme	3 years
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	Accreditation is currently being sought from appropriate professional bodies; this process is on-going.
Regulator	Office for Students (OfS)
Tuition Fees	UK students: Fee for 2024/25 is £9,250* International students: Fee for 2024/25 is £28,000**

Please note that this document applies to Level 4 (Year 1) and Level 5 (Year 2) students only in 2024/25

How this information might change: Please read the important information at

<u>http://www.keele.ac.uk/student-agreement/</u>. 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.</u>

* These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found

at http://www.keele.ac.uk/studentfunding/tuitionfees/

** We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at <u>http://www.keele.ac.uk/studentfunding/tuitionfees/</u>

2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on this subject. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate

attributes.

The BSc in Pharmaceutical Science currently has one optional module: at Year 1 of study (FHEQ Level 4) students can take a 15-credit language module offered by the Keele Language Centre. This emphasises the international nature of the programme and also offers the opportunity for support, as appropriate, in English language.

3. Overview of the Programme

The global pharmaceutical industry has experienced substantial change in recent years. Industry leaders must now understand how discoveries in science and technology translate to business opportunities within the pharmaceutical industry, whether in discovery, manufacturing, marketing and medicines supply and control. The employment market is becoming more challenging and this programme meets the need of the industry by producing graduates who are well-qualified in all aspects of the relevant applied sciences, who have welldeveloped key employability skills, and who also have significant knowledge and understanding of and insight into business and management - so you get more than just training in the core pharmaceutical sciences.

This course covers the main aspects of pharmaceutical discovery and development, product formulation, manufacture and quality assurance assessment, and explains how such pure and applied sciences fit into global business, legal and regulatory frameworks. This includes elements of clinical development and the role of the pharmaceutical scientist within the industry team that take a drug from research to the clinic.

As part of the preparation to enter the global pharmaceutical industry, there will be an opportunity to pursue a language pathway throughout the programme. In the first year you will take a language module in English (depending on fluency levels) or a modern foreign language for those fluent in English. This will ensure you have both a language and cultural understanding of nations outside your home country. For modern languages (not English language modules) you may wish to pursue a pathway through the programme that will provide you with recognition of this on your degree certificate. There will be opportunities at years two and three of the programme, depending on entry level to your chosen language and availability, to take up to 60 credits of language learning on this programme. If you achieve 60 credits of language learning as part of your programme you will have added to your degree certificate the additional recognition of having achieved "with competency in [Chosen Language]" or "with advanced competency in [Chosen Language]", depending on the level which you achieve. You can also take language modules as non-credit extracurricular study throughout your programme - further details can be obtained from the Language Centre.

The principal aim of the programme is to develop knowledge and skills in a wide variety of disciplines by demonstrating the linkages between seemingly disparate topics in science and technology that underpin all subsequent learning, and which are central to the successful delivery of new medicines to global markets.

4. Aims of the programme

The broad aims of the programme are to enable you to:

- Develop the key scientific skill that, in an integrated context, underpin the clinically relevant development of pharmaceutical products
- Understand the structures and frameworks in which the pharmaceutical industry operates, both nationally and globally

5. 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:

• Understand the core principles of the pharmaceutical sciences as they are applied to the development, licencing and marketing of pharmaceutical products

Subject specific skills

Successful students will be able to:

• Understand the nature of pharmaceutical development, both in the laboratory and in the business environments, and to use this knowledge in the development of new strategies to develop clinically relevant approaches to disease management and treatment

Key or transferable skills (including employability skills)

Successful students will be able to:

• Appreciate and understand how the core chemical and biological sciences integrate to underpin the successful development of pharmaceutical products, a core skills base which is directly applicable to a number of other industries (e.g. cosmetics, foods)

The Keele Graduate Attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extracurricular activities (e.g., work experience, and engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social and ethical awareness.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

6. How is the programme taught?

Learning and teaching methods used on the programme vary according to the subject matter and level of the module. They include the following:

• Lectures, tutorials, workshops, problem-solving sessions, interactive and immersive 3D teaching in the Health Cinema, laboratory work (individual and group exercises) and integrated 'synoptic' assessments which integrate the differing science subjects with the business aspects of the programme to develop clinically relevant products for patients.

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Academic Mentors or module lecturers on a one-to-one basis.

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

• The use of a wide range of assessment skills allow us to focus on different aspects of the challenges faced in pharmaceutical development; for example, this might include the use of individual or group-based activities, oral presentation sessions or student-led workshops where decision making is both collective and led by students; research projects may also give students the ability to work on a major piece of novel research not only by themselves but in collaboration with students taking similar projects and within the setting of research groups with the School of Pharmacy and Bioengineering.

7. Teaching Staff

The staff who deliver this course are based predominately within the School of Pharmacy and Bioengineering and have expertise in the core aspects of the pharmaceutical sciences: pharmacology, physiology, medicinal and organic chemistry and formulation and drug delivery. In addition, several members of the School's academic staff have previously worked in the pharmaceutical (and related) industry and who can frame their academic work within the context of their previous roles.

The BSc programme also makes significant use of expert external speakers who are, or have worked, in the pharmaceutical industry or related industries. This includes a range of business-focused roles and addresses with real world examples subjects as diverse as clinical development, marketing and branding of pharmaceutical products, the role of healthcare systems in the context of pharmaceutical sales and regulatory affairs.

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.

8. What is the structure of the Programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from programme to programme, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April. 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 on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are two types of module delivered as part of your programme. They are:

- Compulsory modules a module that you are required to study on this course;
- Optional modules these allow you some limited choice of what to study from a list of modules.

Optional modules include Global Challenge Pathways - a choice of modules from different subject areas that count towards the overall credit requirement but not the number of subject-related credits.

Global Challenge Pathways can either be taken as one 15-credit module at Levels 4, 5 and 6, or one 15-credit module at Levels 5 and 6 (except for the TESOL pathway). **Information about Global Challenge Pathways** can be found after the module lists for Level 6.

Language modules

Students on this programme will also be able to study language modules offered by the Language Centre, as part of a Global Challenge Pathway. You can enrol on either a Modern Language module [more information available at this <u>link</u>] (Semester 1 only) Teaching English to Speakers of Other Languages (TESOL) (Semesters 1 and 2) module (ENL-10053), or the Intercultural Explorer pathway (ENL-10057). See the Global Challenges Pathway information under the module lists for more details.

If you choose the Language Specialist pathway, you will automatically be enrolled on a Semester 2 Modern Language module as a continuation of your language of choice (NB: in year 1, this is a faculty funded 'additional' module). Undertaking a Modern Languages module in Semester 2 is compulsory if you wish to continue to the Language Specialist Global Challenge Pathway the following academic year.

For further information on the content of modules currently offered, please visit: <u>https://www.keele.ac.uk/recordsandexams/modulecatalogue/</u>

A summary of the credit requirements per year is as follows.

Year	Compulsory	Optional	
Tear		Min	Max
Level 4	105	15	15
Level 5	90	30	30
Level 6	90	30	30

Module Lists

Level 4

Students will take 105 credits of compulsory modules, PHA-10028, PHA-10030, PHA-10032 and PHA-10036.

PHA-10028 and PHA-10030 are shared with the BSc in Bioengineering (Regenerative Medicine), formerly the BSc in Cell and Tissue Engineering; PHA-10032 is a bespoke module which focuses on introducing the core pharmaceutical sciences to students.

Students will therefore take 15 credits of optional modules. Students will have two pathways to select from:

- 1. Global Challenge Pathway
- 2. A module from those available from the Business School

All optional module selections are subject to availability and compatibility with the School of Pharmacy & Bioengineering timetable for compulsory modules.

Compulsory modules	Module Code	Credits	Period
Human Anatomy and Physiology	PHA-10028	30	Semester 1-2
Biochemistry & Cell Biology	PHA-10030	30	Semester 1-2
Introduction to Pharmaceutical Science	PHA-10032	30	Semester 1-2
Introduction to Formulation Science	PHA-10036	15	Semester 2

Optional modules	Module Code	Credits	Period
Management in Context	MAN-10018	15	Semester 1
Marketing Principles	MAN-10019	15	Semester 1
Global Business Environment	MAN-10022	15	Semester 1
Introduction to Cosmetic Science	PHA-10038	15	Semester 1
Introduction to International Business	MAN-10023	15	Semester 2
Multinational Enterprise Business Perspectives	MAN-10026	15	Semester 2

NB: Global Challenge Pathways (GCPs) - students have the option of taking a Global Challenge Pathway, which can either be taken as one 15-credit module at Levels 4, 5 and 6, or one 15-credit module at Levels 5 and 6 (except for the TESOL pathway). Information on GCPs is shown under the Level 6 modules below.

Level 5

Students will take 90 credits of compulsory modules, PHA-20016, PHA-20014 and PHA-20018.

Students will therefore take 30 credits of optional modules. Students will have two pathways to select from:

1. Available modules from the Global Challenge Pathway

2. A module from those available from the Business School (one, 15-credit module)

All optional module selections are subject to availability and compatibility with the School of Pharmacy & Bioengineering timetable for compulsory modules.

Students will be encouraged to take one optional module in each semester but it is appreciated that this might not always be possible. Where two or more optional modules are selected in the same academic year the availability of modules will depend on the exact choice made in order to avoid overlap.

Compulsory modules	Module Code	Credits	Period
Applied Pharmaceutical Science I	PHA-20016	30	Semester 1
Pharmaceutical Analysis And Quality Control	PHA-20014	30	Semester 1-2
Applied Pharmaceutical Science II	PHA-20018	30	Semester 2

Optional modules	Module Code	Credits	Period
Organisational Behaviour	MAN-20055	15	Semester 1
Operations and Quality Management	MAN-20053	15	Semester 2

Level 6

Students will take 90 credits of compulsory modules and 30 credits of optional modules.

Students will have two pathways to select from:

1. Available modules from the Global Challenge Pathway

2. A module from those available from the School of Pharmacy and Bioengineering

Compulsory modules	Module Code	Credits	Period
The Pharmaceutical Industry at the Cutting Edge	PHA-30021	30	Semester 1-2
Pharmaceutical Science Research Project	PHA-30025	30	Semester 1-2
Advanced Topics in Pharmaceutical Science (Pharmacology)	PHA-30041	15	Semester 1-2
Advanced Topics in Pharmaceutical Science (Pharmaceutics & Drug Delivery)	PHA-30043	15	Semester 1-2

Optional modules	Module Code	Credits	Period
Current Developments in Pharmaceutical Science II	PHA-30017	15	Semester 1-2
Current Developments in Pharmaceutical Science	PHA-30019	30	Semester 1-2
Modern Biotherapeutics	PHA-30057	15	Semester 1-2

Global Challenge Pathways (GCPs)

Students have the option of taking a Global Challenge Pathway, which includes one 15-credit module at Levels 4, 5 and 6, or one 15-credit module at Levels 5 and 6. Students who started a Global Challenge Pathway at Level 4 will continue with the same pathway at Level 5. Students joining Global Challenge Pathways at Level 5 can join any pathway (except TESOL). Students at Level 6 will continue with the same Global Challenge Pathway they studied at Levels 4 and/or Level 5.

Global Challenge Pathways offer students the chance to fulfil an exciting, engaging route of interdisciplinary study. Choosing a pathway, students will be presented with a global issue or 'challenge' which directly relates to societal issues, needs and debates. They will be invited to take part in academic and external facing projects which address these issues, within an interdisciplinary community of students and staff. Students completing a Global Challenge Pathway will receive recognition on their degree certificate.

Digital Futures	The Digital Futures pathway offers you the opportunity to take an active role in current debates, cutting-edge research, and projects with external partners, addressing both the exciting potential and the challenges of disruptive digital transformation across all spheres of life. Part of a diverse and interdisciplinary pathway community, you will engage in exciting, impactful collaborative project work in innovative formats on areas that matter most to you. Engaged in real-world scenarios as digital citizens, you will expand, deepen, and mobilise knowledge and skills to drive inclusive, empowering, and sustainable change at local and global levels.
	Level 4 Module: A digital life: challenges and opportunities (GCP-10005)
	Level 5 Module: Digital World - People, Spaces, and Data (GCP-20005)
	Level 6 Module: Digital Citizenship and Sustainable Futures (GCP-30005)

Climate Change & Sustainability	Through the Climate Change & Sustainability pathway you will develop the skills, understanding and drive to become agents of change to tackle climate change and wider sustainability challenges. You will hear from international partners to learn about climate change and sustainability in different international contexts; lead your own projects to drive real change in your communities; and be part of educating and supporting others to help achieve a more sustainable future. Level 4 Module: Climate Change and Sustainable Futures: Global Perspectives (GCP-10009) Level 5 Module: Climate Change and Sustainability: Action and Activism (GCP- 20009) Level 6 Module: Skills for Sustainability (GCP-30009)
Social Justice	The Social Justice pathway is based upon a transformative methodology which centres the student's role as 'agents of change' to reflect upon decolonising and feminist, perspectives on social justice, to forge critical outputs to transform the Sustainable Development Goals. You will develop research and engagement skills with local, national, and international partners from Universities, NGOs, International Human Rights frameworks. You will engage with key societal challenges focused upon the Sustainable Development Goals, to develop an intersectional response from identity-based perspectives on race, gender, sexualities and disabilities. The pathway will allow you to monitor and critically evaluate policies and human rights treaties, and produce and disseminate digitally fluent, international and sustainable project findings. Level 4 Module: Reflections on Social Injustices, Past and Present (GCP-10003) Level 5 Module: Strategic Interventions for Social Justice (GCP-20003) Level 6 Module: Transforming Social Justice; Global Perspectives (GCP-30003)
Enterprise & the Future of Work	In order to meet the challenges set out in the UN's Sustainable Development Goals we need to understand the power of enterprise and prepare for the future contexts of work, creativity and disruption. By providing you with the skills, knowledge and understanding of global challenges this pathway will prepare you to be part of future-facing solutions. This module will support you in developing creative, original thinking, allowing you to collaborate on projects that persuade and effect change, setting you up to thrive in future environments of work and innovation. Level 4 Module: Enterprise and the Future of Work (GCP-10007) Level 5 Module: Enterprise and the Future of Work: Collaborate to Innovate (GCP- 20007) Level 6 Module: Enterprise and the Future of Work: Designing Change (GCP- 30007)

Global Health Challenges	By taking the global health challenge pathway you will develop solutions to improve the health and quality of life for particular people and communities, engaging with these groups to co- design interventions. This pathway will provide you with skills that go beyond a focus on health and will allow you to develop your ability to work in a team and lead change in society. The knowledge, skills and work experience will complement your core degree and enhance your career opportunities and graduate aspirations. Level 4 Module: Key concepts and challenges in global health (GCP-10001) Level 5 Module: Using Evidence to Improve Global Health (GCP-20001) Level 6 Module: Working to Improve Global Health (GCP-30001)
	Communication within and across cultures is inseparable from language, and development of intercultural awareness can enable you to actively contribute to the shaping of an international future. The Language and Intercultural Awareness pathway allows you to engage in genuine interdisciplinary and international exchange and to understand and explore the link between language, culture and communication. Each of the strands we offer provides you with skills and direct experience for active engagement in working to face global challenges.
	The Language Specialist : Become a specialist in one of our languages and graduate with a degree title that includes ' with competency in (Language)' or ' with advanced competency in (Language)'.
	The Language Taster: Explore a new language every year.
	The Certificate in TESOL (Teaching English to Speakers of Other Languages): (NB: only available if starting from Level 4) Enhance your undergraduate degree by studying the Trinity College Certificate in Teaching English to Speakers of Other Languages (TESOL). As an internationally recognised qualification, you can teach around the world, enabling you to travel whilst helping people develop their English Language Skills. You will also develop many transferable skills which will enhance your future employability.
Languages & Intercultural	The Intercultural Explorer: Through an interdisciplinary understanding of intercultural communication - as both an academic discipline and as a tool to promote and engage in global activity, you will explore the concept of culture. Module content and assessments allow you to examine in-depth the role of both culture and language in, for example, the UN sustainability goals.
Awareness	Modules available:
	The Language Specialist:
	Any Semester 1 Language Module (the level at which you enter will be determined by your previous language learning experiences).
	The Language Taster:
	Any Semester 1 Language Module (the level at which you enter will be determined by your previous language learning experiences)
	The Certificate in TESOL (NB: only available if starting from Level 4):
	ENL-10053 TESOL 1
	ENL-20007 TESOL 2
	ENL-30009 TESOL 3
	The Intercultural Explorer:
	ENL-10057 The stories we live by
	ENL-20009 Who do you think you are?

9. Final and intermediate awards

Credits required for each level of academic award are as follows:

Honours Degree	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate at least 270 credits in your main subject (out of 360 credits overall), with at least 90 credits in each of the three years of study, to graduate with a named single honours degree in this subject. In addition, students whose credits include 60 credits for modules provided by the language centre can, depending on the CEFR-level of those modules, be additionally awarded the notation on their degree certificate of "with competency" or "with advanced competency" in their chosen language.
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

10. 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:

 The assessments used in this programme reflect a wide range of academic practice and are also designed to be relevant to the needs of the industry. For example, the synoptic assessment collates and integrates learning across science and business at Level Five of the programme, whilst the use of batch record sheets in laboratory sessions reflect practice in industry (pharmaceutical and otherwise). The main modes of assessment are examinations (essay-based, short-answer questions and multiple choice questions), laboratory practical exercises (with associated report-writing and documentation completion, as well as physical sample preparation and analysis), workshops (including pharmaceutical calculations), group and individual presentations and synoptic exercises.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively 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.

At all levels (4-6), Low Stakes Assessments (LSAs) have been introduced to aid student engagement on the course. These contribute to a range of assessments at all levels.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external

visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity

	Scheduled learning and teaching activities	Guided independent Study	Placements
Year 1 (Level 4)	26%	72.3%	1.7%
Year 2 (Level 5)	27.3%	72.7%	0%
Year 3 (Level 6)	29%	71%	0%

12. Accreditation

This programme is not currently accredited by an external body. However, discussions have begun with the Academy of Pharmaceutical Sciences and The Royal Society of Chemistry to begin the process of accreditation by both those bodies. Students will be updated as appropriate to any changes in the status of these processes.

13. 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/

14. Other Learning Opportunities

Study abroad (semester)

Students on the programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities. Please note that students cannot take both a Global Challenge Pathway (GCP) and the semester abroad option.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (<u>http://www.keele.ac.uk/studyabroad/partneruniversities/</u>); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad to be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students who meet external eligibility criteria may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for income dependent bursaries at Keele. Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

15. Additional Costs

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 undergraduate programme.

Version History

This document

Date Approved: 03 June 2024

What's Changed

PHA-10038 added.

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.1	2023/24	GARY MOSS		
1	2023/24	GARY MOSS	04 July 2023	