Merger with City, University of London

City, University of London and St George's, University of London have signed an agreement to merge. Subject to the necessary regulatory approvals, the merged institution will be called City St George's, University of London and will begin operating from 1 August 2024.

For students joining in 2024, there will be no change to the delivery, content and structure of the course. St George's will be going through the process to enable it to offer students the choice to still graduate with a St George's Hospital Medical School degree certificate or choose to graduate with a degree certificate from City St George's.

Further information, including frequently asked questions and contact details to submit further questions, are available on our website: https://www.sgul.ac.uk/study/prospective-students/merger

Programme Specification

A	NATURE OF THE AWARD	
1	Programme Title	Sports Cardiology
2	Final award	MSc
3	Intermediate awards	PGDip in Sports Cardiology PGCert in Sports Cardiology
4	Awarding institution/body	St George's Hospital Medical School, a constituent college of the University of London
5	Teaching institution	St George's Hospital Medical School
6	Programme accredited by	N/A
7	UCAS/JACS code	N/A
8	QAA benchmark statements	N/A
9	Date specification produced	Nov 2015, reviewed March 2024

B	FEATURES OF THE PROGRAMME	
1	Mode of study	Full-time; Part-time
2	Usual length of programme	1 year full-time; 2 year part-time
3	Other features of the programme	Two entries per year – September (Full-time and Part-time students) & January (Full-time and Part-time students)

C	EDUCATIONAL AIMS OF THE PROGRAMME
To develop graduates with in-depth knowledge of all constituent disciplines of Sports Cardiology. Our graduates will meet the increasing demand for experts in the field of Sports Cardiology, driven by the recognition of the pivotal role of exercise as an antidote to the growing obesity pandemic, the expansion of pre-participation cardiovascular evaluation of young athletes advocated by International and National scientific and sporting bodies, and the increasing population of amateur athletes.	

D	LEARNING OUTCOMES OF THE PROGRAMME	
	Advanced knowledge and understanding of:	*Related teaching and learning methods and strategies*
1	Cardiac anatomy and the principles of exercise physiology	Lectures Small-group teaching Tutorials Practical classes Participation in clinical activities and departmental multidisciplinary meetings Research project *Assessment* 1. Attendance record and log-book 2. In-course assessments: Literature review, essays, reports, posters, oral presentations 3. Examinations: Oral presentations and essay
2	The acute and chronic cardiovascular adaptations associated with exercise and the impact of age, gender, ethnicity, and sporting discipline	
3	The conditions that predispose to sudden cardiac death during exercise and how to differentiate phenotypes of athletic training from those of cardiac disease	
4	The benefits of exercise in reducing cardiovascular risk	
5	Exercise recommendations and exercise prescription in individuals with heart disease	
6	Indications and limitations of investigative modalities when evaluating an athlete, including genetic testing	
7	The benefits and limitations of pre-participation screening in different athlete and non-athlete populations	
8	Ethical and legal aspects of preparticipation screening and disqualification of athletes from competitive sport	
9	The logistical, financial and medico-legal challenges of organizing medical cover for mass events and how those may differ for different disciplines	
10	Substances and methods banned during sports participation, their pharmacological action and potentially deleterious cardiovascular effects	
11	Effective communication with athletes, extended family, managers, team doctors and clubs	

12	Plan and carry out an individual research project, understand the legal and ethical frameworks, critically appraise literature, evaluate research outcomes, and relate them to the existing knowledge base	

	Cognitive skills: the ability to	*Related teaching and learning methods and strategies* Lectures Small group teaching Tutorials *Assessment* 1. In-course assessment 2. Written examinations and research project
1	Prioritise, perform in a timely manner and interpret a multitude of investigations for use in diagnosis and treatment	
2	Communicate effectively with colleagues and athletes in the context of sensitive/challenging circumstances	
3	Critically evaluate scientific and clinical research	
4	Analyse and interpret data	
5	Plan and execute a research project	
6	Promote innovative solutions to problems, by forming research questions and appropriate strategies	

	Practical skills: the ability to	*Related teaching and learning methods and strategies* Lectures Practical classes Small-group teaching Tutorials Participation in clinical activities and departmental multidisciplinary meetings Research project *Assessment* 1. Attendance record and log-book 2. In-course assessment 3. Written examinations and research project
1	Evaluate individuals with suspicion of heart disease or cardiovascular risk factors	
2	Perform and interpret the results of commonly utilised investigations in the evaluation of athletes	
3	Risk stratify athletes and patients with cardiac disease	
4	Institute appropriate treatment in athletes and patients with cardiac disease	
5	Provide exercise prescription in healthy individuals and athletes/patients with cardiac disease	
6	Perform cardiovascular screening	
7	Develop and manage safety procedures in sports arenas, athletic fields, and schools	
8	Deal with medical emergencies in the sporting field	
9	Advise athletes on drug/substance eligibility and the effects of substance abuse	
10	Give oral presentations of scientific experiments/case reports or overviews of a detailed scientific topic	

11	Write clearly and concisely – e.g. scientific reports, reviews of scientific literature and examination essays	
12	Interpret data as a basis for scientific and clinical research	
13	Plan and carry out an individual research project, understand the legal and ethical frameworks, evaluate research outcomes, and relate them to the existing knowledge base	
14	Communicate sensitive clinical information to patients, their extended enviroment and colleagues	
15	Select data sources and computational tools for analysing data	

	Transferable skills: the ability to	*Related teaching and learning methods and strategies* Small-group teaching *Assessment* 3. In-course assessment 4. Written examinations and research project
1	Structure and communicate ideas both orally and in writing	
2	Work as part of a multidisciplinary team	
3	Build on team leader skills such as delegation and negotiation	
4	Assess evidence critically	
5	Find and use information technology	
6	Set independent learning objectives beyond those established in the teaching room	

E Programme structure and features

Modules will be delivered by SGUL.

Compulsory modules:

- Cardiovascular anatomy and physiology (15 credits)
- Cardiac rehabilitation (15 credits)
- Theory of cardiovascular evaluation of athletes (15 credits)
- Cardiovascular evaluation of athletes in practice (15 credits)
- Theory of cardiovascular screening (15 credits)
- Cardiovascular screening in practice (15 credits)

Option modules (15 credits):

- Emergency response planning (15 credits)
- Advanced exercise prescription (15 credits)
- Exercise through the life span (15 credits)
- Ethical, legal and social issues in applied genomics (15 credits)
- Counselling skills in genomics (15 credits)
- Cardiovascular genetics and genomics (15 credits)

Common Postgraduate Modules Framework option modules

- Research methods (15 credits)
- Statistics (15 credits)
- Research project planning and management (15 credits)

Research project/Thesis (60 credits)

MSc
Students are required to complete all compulsory modules, a 60 credit research project, and 2 option modules. At least one of the option modules will be a research methodology related module from the Common Postgraduate Modules Framework at SGUL. Full-time MSc will normally be completed over 1 year, part-time over 2 years.

PGDip
Students are required to complete all compulsory modules and 2 option modules. At least one of the option modules will be a research-related module from the Common Postgraduate Modules Framework at SGUL. Full-time PGDip will normally be completed over 1 year, part-time over 2 years.

PGCert
Students are required to complete the theory and practical modules on Cardiovascular evaluation of athletes and Cardiovascular screening. Full-time PGCert will normally be completed over 1 year, part-time over 2 years.

Students will be permitted to upgrade from PGCert to PGDip, or PGDip to MSc, providing they have successfully completed all modules to date.

F General teaching and learning strategies

Students are expected to be of graduate standard when entering the programme and to utilise their undergraduate expertise and experience. A wide range of teaching and learning strategies are used in the delivery of the MSc in Sports Cardiology course. Teaching will predominantly consist of small group teachings, tutorials and one-to-one case based learning to allow more hands-on tasks to support the academic learning experience.

Students will also participate in self-directed study and wider reading. The course is designed to encourage students to progress towards greater self-direction; students are encouraged to develop insight into their own learning styles and become responsible for their own learning and professional development. The combination of strategies enables students to develop an investigative, independent and individualised approach to learning and to undertake an extended research project at Level 7.

The course is designed to offer flexibility in order to accommodate for the needs of professionals who need to complete their studies around their existing work commitments. The course provides two entry points through the year and is thought on both a full-time and a part-time basis. To allow greater flexibility a technology-rich model is used to deliver a significant proportion of learning materials online and provide resources to facilitate self-directed learning and reflective practice.

Face-to-face, practical learning sessions at SGUL or in the field (screening or sporting venues) are essential in order to gain the necessary experience and complete the required number of procedures. The practical sessions allow students to benefit from direct contact with lecturers and other learners and to facilitate contact with patients. On-site sessions are delivered in one week blocks every four weeks to allow for balance with NHS work. Face-to-face sessions will be provided as participation in clinical sessions and screening sessions, participation in

sporting grounds and events as part of the medical team, lectures, tutor-led or student-led seminars and workshops, and case or scenario based learning sessions.

G Assessment

Assessments are designed to be aligned to specific module learning outcomes and the overall course aims. They include a range of different assessment types reflecting student preference and allowing strengths in different assessment methods to come to the fore, so as not to advantage or disadvantage particular students.

The assessment strategy comprises of formative and summative assessment, which will provide students with timely feedback and enhance the quality of their learning.

Formative feedback from module leads and lecturers will be provided to assess and advise students on their progress, and help students to reflect on their learning and prepare for summative assessments. Formative quizzes and short reports will be used to enable students to test their knowledge.

Summative assessment methods will include:

- Attendance record and logbook completion
- Completion of online courses
- Literature review: summarising topics, prevailing theories, hypotheses and work of key writers
- Essays: to develop argument or elaborate on research information to provide a review of a topic.
- Reports, posters, presentations: to analyse and evaluate information and appropriately present and explain conclusions to others.
- Data analysis: to use the correct analytical approaches to handle and interpret data and present the results in a report
- Research project: design and implement a research project under supervision, including the obtaining, analysis and discussion of data, adhering to appropriate ethical principles and approvals.
- Acceptance and presentation of scientific work at local, national or international conferences.

H Support for students and their learning

Educational Supervisor: Each student is assigned an educational supervisor who monitors academic progression and student welfare. The tutor is the first port of contact for the student, assists the student with any difficulties, directs them to further support services available within SGUL and monitors their progress throughout the course to ensure that problems are identified early and satisfactory completion. Formal supervision meetings will be organized at pre-specified time points.

Course Director and the course team: For any students experiencing personal or academic difficulties, additional academic and pastoral support is offered by the Course Director. The Course Director also manages requests for extensions, mitigating circumstances considerations, and interruption of studies. Academic support will also be provided by module leaders.

Student peer support: Peer-to-peer student learning is encouraged within the structure of the course. Group work and other class and online activities will provide opportunities for students

to share knowledge and experiences, and provide a platform to offer each other support and advice.

SGUL Support Services: A comprehensive range of support is provided to all SGUL students, including the confidential and independent Student Counselling Service, the multi-faith Chaplaincy, advice on financial issues through the Registry, the Occupational Health service, the Careers Advisor, the Disabilities Advisor, the International Students Advisor, and the Students' Union. Two members of academic staff are employed specifically to provide study skills support and English language support, respectively. Students also have on and off site access to library services and IT facilities, with access to a dedicated librarian for postgraduate courses who can facilitate additional one-to-one or group study support sessions if required.

The Student Handbook will be available to students and staff at the start of the course and contains information on the full range of student support offered.

SGUL Graduate School: The SGUL Graduate School provides students with a space to meet and the opportunity to mix with postgraduate students from other courses, and to broaden their social and academic support network.

Resources
In addition to its staff resources, SGUL has a wealth of teaching and research laboratories, an extensive computer network, a large library and well equipped computer classroom, specialized workshops and efficient academic service facilities. Students have access to a substantial collection of web-based learning resources. This incorporates web links to specific useful sites, as well as key learning topic materials developed by SGUL staff to support student learning.

The library holds a specialist medicine and health sciences collection of over 40,000 books, and audio-visual items, subscribes to over 10,000 print and electronic journals, and provides more than 250 reader seats (divided into quiet study, silent study and group study areas).

The area has WiFi throughout as well as some desks with fixed data points (ethernet cables to connect laptop directly to the network rather than using WiFi). Power sockets are available at over 100 desks and a number of laptops are available for use.

Upon enrolment, students take part in an induction programme to help their orientation. This includes introductions to the programme, health and safety on campus, library and computing resources.

I Criteria for admissions

Standard programme entry requirements:

1. Undergraduate degree

Physicians should have completed their MBBS (Medical Bachelor & Bachelor in Surgery). Other applicants should normally have, or be expected to achieve a minimum second class honours degree (2:2) from a UK or Republic of Ireland University, in a subject which offers an appropriate grounding, e.g. sport science, cardiac physiology, cardiac physiotherapy, other healthcare-related degrees.

2. Practical experience

All candidates are expected to have a degree of clinical experience within the field of medicine, cardiology, sports medicine or sports science. Physicians are required to have a 2-year post graduate clinical experience. Cardiac physiologists and cardiac physiotherapists are required

to have 2-year post graduate clinical experience in a cardiac department. Sport scientists are required to have 2-year post graduate practical experience.

3. Basic competency with the interpretation of the 12-lead ECG.

All candidates are expected to have basic competency with the interpretation of the 12-lead ECG. All candidates with MBBS or BSc in cardiac physiology or cardiac physiotherapy will be presumed competent given that ECG interpretation is part of their curriculum training. Other candidates will need to present evidence of competency that may include certification from a recent course (within 1 year of the commencement day of the degree) or letter from their supervisor. For individuals who do not have the skill/experience of ECG interpretation, cannot provide the evidence or wish to refresh their ECG skills an ECG course will be available, offered at SGUL, outside the MSc programme that candidates could undertake. The course will be offered to MSc candidates at a discounted price.

4. Basic Disclosure Criminal record check

Once accepted for the course all candidates will require a Basic Disclosure Criminal record check clearance (DBS). The course involves contact with patients and in line with legislation and standard practice in the UK DBS clearance will be necessary prior to registration and enrolment. For more information please see www.crbdirect.org.uk/

5. English language skills.

International applicants who do not hold a first degree equivalent to UK honours degree studies in a majority English-speaking country as defined by UK Visas and Immigration will need to present evidence of proficiency in English language (IELTS with an overall score of 6.5, with no component less than 6.0; Pearson test with an overall score of 67, with no component less than 67; Cambridge English Advanced (Certificate in Advanced English) with an overall score of 185, with no component less than 176; or Cambridge English: Proficiency (also known as Certificate of Proficiency in English) with an overall score of 185, with no component less than 176).

International applicants:

Equivalent international qualifications will also be accepted, and the equivalence of these qualifications will be checked using the UK NARIC website. International applicants must satisfy the requirements of the UK Visas and Immigration department in relation to St George's responsibilities as a Highly Trusted Sponsor for Tier 4 students.

Non-standard programme entry:

Alternative professional qualifications may be considered and applicants holding these qualifications are encouraged to submit an application form. Non-standard candidates may be required to submit supplementary details (e.g. transcripts) and/or attend interviews or selection days.

Applications for stand-alone modules:

Applications for stand-alone modules will be subject to the same entry requirements as those described above. Applicants with non-standard qualifications will normally be encouraged to consider taking a stand-alone module prior to registering for a longer degree. The deadline for application will be one month before the start date of the module and suitable applicants would be admitted on a first-come first served basis until the maximum capacity for that module was reached.

J Career opportunities

Currently, physicians with no formal training in sports cardiology perform the majority of athlete evaluations. Given the complexities of the field, individuals with limited knowledge and experience are likely to resort to numerous, costly, and often redundant investigations, which has huge implications for the National Health Service. Such practice has the potential for causing delays in the athlete's clearance for competition and false disqualification. An MSc in sports cardiology will address the paucity of structured training in the field and will enhance the qualifications of physicians, physiologists, physiotherapists and sports scientists who are committed to training in cardiology, sports medicine or exercise physiology by providing them with a novel degree and highly sought after set of skills.

A formal MSc degree in sports cardiology conferred by a well established and well published academic institution will set our graduates apart from potential competition and will provide them with unique employment opportunities within National health systems, sporting organisations and charitable organisations dedicated to sport and prevention of sudden cardiac death.

The initiative will address the ever growing need for individuals with an in-depth knowledge of Sports Cardiology given the drive for a healthier lifestyle; the growing population of amateur athletes, with 2.5 million marathon runs per year in Europe, alone; and the commitment of sporting organisations to pre-participation screening.

The participation of key figures from major sporting and charitable organizations will offer students the chance to network and explore the prospect of potential employers. Students will gain a good understanding of the needs of such organisations and will be offered career advice from potential employers. Our long-standing collaboration with sporting bodies, clubs and charitable organisations guarantees those networking opportunities.

K Methods for evaluating and improving the quality and standards of teaching and learning

A range of methods are employed:

- The Course Committee meetings have standing agenda items on course progress where student representatives can raise any issues.
- Reports of Student Evaluation Questionnaires are reviewed by the Course Committee.
- External Examiners' reports are reviewed by the Course Committee and Board of Examiners. Points requiring action are sent to the relevant members of academic or administrative or the Course Committee.
- Taught Postgraduate Courses Committee (TPCC) is responsible for quality monitoring of all postgraduate programmes. The Committee receives the minutes of Course Committee meetings, and the Annual Programme Monitoring Report. There is robust debate at TPCC meetings, attended by course directors of all postgraduate courses, where good practice is shared and areas for improvement are reviewed.

Other methods

- Staff appraisal against SGUL criteria
- Teaching skills courses for staff
- Review of research activities of teaching staff

L Regulation of assessment

The course complies with the General Regulations for Students and Programmes of Study as devised by St George's.

Examinations are regulated through:

- Scheme of Assessment, which is reviewed and revised as necessary every year
- The Board of Examiners, which meets at least twice annually, and identifies strengths and weakness of assessments
- External Examiner who reviews specific assignment and examination questions, a sample of student coursework and exam scripts, and all dissertations. The External Examiner provides an annual report on practices and processes, which is considered at course committee.

M Indicators of quality and standards

Internal review

- Monitoring and responding to student feedback
- Monitoring of course content with periodic review
- Regular analysis of student performance in assessments
- Annual analysis of student progression and final degree outcomes
- Periodic review every 5 years
- External examiner reports
- Annual Programme Monitoring Report
- HEE reporting

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

Key sources of information are:
Course documents
Course Moodle pages
Student Handbook
The St George's prospectus
The St George's internet site (www.sgul.ac.uk)
General Regulations for students and programmes of study
QAA subject review reports