UK-validated Chinese award
BSc (Hons) Software Design and Development

Programme Specification

2025-2026

CONTENTS

1. INTRODUCTION

This document describes the **BSc (Hons) Software Design and Development** awarded by Richmond American University London, using the agreement required by the Higher Education Qualification Framework in England, Wales, and Northern Ireland (QAA, 2019).

The programme is devised, delivered, and assessed by Jiangxi University of Technology, and validated for a UK award by Richmond American University London. The programme is delivered by Jiangxi University of Technology, in China, to its own students. Richmond American University London is responsible for the standard and issuance of UK awards and quality assurance and enhancement of the validated programmes at Jiangxi University of Technology.

The degree is delivered within the framework set by policies and regulations of *National Standards for Teaching Quality of Undergraduate Majors in General Colleges and Universities of China*. Typically, students complete 56 separate courses over a programme which takes 4 years. Normally, each course carries 1-6 Chinese academic credits and the relationship between credit hours and credits of various types of courses are as follows:
Theoretical courses: 16 credit hours = 1 credit
Experimental / Practical courses: 24 credit hours = 1 credit
Practical Learning Arrangements: 1 week= 1 credit

The degrees are also articulated in terms of UK Regulatory Frameworks, chiefly the FHEQ and the Higher Education Credit Framework for England. Each course has been assigned to an appropriate level on the FHEQ, based on the course's learning outcomes and assessment strategies (note that the courses comprising the first year of the 4-year Chinese undergraduate degree are normally at RQF Level 3). Chinese undergraduate credit can generally be translated to ECTS and UK CATS credits in the following manner: 1 Chinese credit = 2 ECTS credits = 4 UK CATS credits. A Richmond-validated UK award must have a minimum of 360 UK CATS credits at Levels 4-6 on the FHEQ.

Please note: This specification provides a concise summary of the key features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each course can be found in course specification documents and syllabi.

The accuracy of the information contained in this document is reviewed by the University.

2. OVERVIEW

Programme/award title(s)	BSc (Hons) Software Design and Development
Teaching Institution	Jiangxi University of Technology
Awarding Institution	Richmond American University London
Date of last validation	August 2023
Next revalidation	2028
Credit for the award	384 UK credits (FHEQ Level 4 -6)
Programme start date	September 2025
Underpinning subject benchmark(s)	QAA Subject Benchmark: Computing https://www.qaa.ac.uk/docs/qaa/sbs/sbs-computing-22.pdf?sfvrsn=ebb3dc81_2
Professional/statutory recognition	N/A
Language of Study	Chinese
Language of Assessment	Chinese
Duration of the programme for each mode of study (P/T, FT, DL)	FT
Date of production/revision of this specification	June 2025 (See chart at the end of this document for list of revisions)

3. MISSION

The programme helps the students to acquire good scientific literacy, social responsibility, professional ethics, consciousness of innovation and entrepreneurship, team spirit of cooperation and international vision. It helps students to develop awareness and the ability of autonomous learning and lifelong learning and aims to familiarise students with computer application techniques such as mathematics, basic theories of natural science and computer and knowledge of software design and software management. Graduates of this programme can be engaged in fields such as software system design, development, testing, application, management, and maintenance, and can adapt to technological progress and social development.

4. ABOUT THE PROGRAMME

The BSc Software Design and Development at JXUT is a four-year programme. The key outcomes are delivered through courses, assessed work, examinations, and practice. On the completion of the programme, students are expected to understand the development of software development and have application-oriented skills in software design.

The main courses are as follows: Data Communication and Networks, Fundamental of Programming Design, Introduction to Programming, Data Structure and Algorithms, System Analysis and Design, Programming Design and Development, Principles and Applications of Database Systems (Theoretical), Operating Systems, Software Quality Assurance and Testing etc.

5. PROGRAMME STRUCTURE

To meet the requirements of the UK award, students must:
- satisfactorily complete ALL required courses listed below at each FHEQ level;
- satisfactorily complete the minimum number of optional courses listed below, at each FHEQ Level;
- earn a minimum of 120 UK credits at each of the levels 4-6 (360 UK credits total) *, and;
- achieve a minimum UKGPA of 1.850.

*Please note, some programmes require a higher minimum UK credit threshold at each FHEQ level, please refer to the structure below for the programme.
For more information about Richmond's UKGPA calculations and UK Degree Classification boundaries, please refer to JXUT's dedicated UK-award policy pages.

The normal number of courses in each academic year is determined according to the schedule of courses in each academic year. Students may take courses at different levels in an academic year, so a majority of level 3 and a few level 4 courses in the first year, a majority of level 4 and a few level 5 courses in the second year and so on.

RQF Level 3			
Course Code	**Course Title**	**CREDITS (China)**	**CREDITS (UK)**
104010101372	Career Planning	1	4
106020101077	College English (1)	6	24
113010101028	Higher Mathematics A (1)	4	16
113010101026	Higher Mathematics A (2)	4	16
102010201502	Foundations of Information Systems	4	16
102020201430	Fundamentals of Programming	3	12
102010201507	Data Communications and Networks	4	16
102040401216	Professional Skills for IT	1	4
FHEQ 3 Credit Totals		31	124

FHEQ level 4			
Course Code	**Course Title**	**CREDITS (China)**	**CREDITS (UK)**
106020101075	College English (2)	6	24
113010201018	Linear Algebra A (Comp Sci)	2	8
102010201701	Introduction to Programming	4	16
102020201418	Data Structure and Algorithms (Theoretical)	3	12
102040401211	Data Structures and Algorithms (Practical)	1	4
102020301407	Operating Systems	3	12
102010201503	Discrete Mathematics for IT	4	16
102020303390	Java EE Framework Technology	3	12
102020303353	Software Design and Architecture	3	12

102040401213	Software Development/Design Practice	1	4
FHEQ 4 Credit Totals		**30**	**120**

FHEQ level 5			
Course Code	**Course Title**	**CREDITS (China)**	**CREDITS (UK)**
113010101035	Innovation Education	2	8
106020101073	College English (3)	6	24
106020101071	College English (4)	6	24
102010301490	Systems Analysis and Design	4	16
102010301498	Object Oriented Programming and Design	4	16
102040401224	Computer Networks	1	4
102020301398	Principles and Applications of Database Systems (Theoretical)	3	12
102040401210	Principles and Applications of Database Systems (Practical)	1	4
102020301401	Software Quality Assurance and Testing	3	12
102040401230	Java Web Programming Technology (Practical)	1	4
102020303388	Java Web Programming Technology	3	12
FHEQ 5 Credit Totals		**34**	**136**

FHEQ Level 6			
Course Code	**Course Title**	**CREDITS (China)**	**CREDITS (UK)**
104010101374	Employment Guidance	1	4
104010101375	Entrepreneurship Education	1	4
119040401008	Specialized Practice	8	32
119040401011	Undergraduate Dissertation (Design)	8	32

119040401010	Undergraduate Practice	2	8
102020304318	Software Modelling Technology	3	12
Plus 3 of the following major Electives			
102010304457	Software Construction	3	12
102010304453	Software Professional Literacy	3	12
102010304454	Software Requirement Analysis	3	12
102020304306	Cloud Computing and Big Data	3	12
102010304437	Information Security	3	12
FHEQ 6 Credit Totals		32	128

Blue = Gen Ed / Common Foundation courses
Black = Major compulsory courses
Green = Major elective courses

6. PROGRAMME OUTCOMES

Programme-level learning outcomes are identified below. Please refer to the Curriculum Map at the end of this document for details of how outcomes are deployed across the study programme.

Knowledge and Understanding (A)

A1 Development knowledge: able to apply mathematics, natural sciences, design and development foundations and professional knowledge to analyze and solve complex software design and development problems.

A1(i) Correctly understand the required knowledge and concepts of mathematics, natural sciences, development, and calculations, as well as their practical application in software design and development
A1(ii) apply concepts, theories, and methods to solve practical problems in software design and development
A1(iii) Demonstrate a broad knowledge of computer science, and be able to analyze and design and develop solutions for Software problems
A1(iv) Demonstrate computer design and development professional knowledge and be able to comprehensively apply relevant knowledge to solve complex development problems in the field of computer software design and development.

A2 Problem analysis: Able to apply the necessary principles of mathematics, natural sciences, and computer science, identify and express complex development problems in the computer field, and obtain effective conclusions through literature research and analysis

A2(i) Use the basic principles of computer systems, form professional ideas, understand the development trends, and current situation of the profession, and adapt to changes in the environment and technological progress
A2(ii)Understand the principles of software design and development, form professional ideas, understand the development trends and status quo of the major, and adapt to changes in the environment and technological progress
A2(iii Identify, describe, and express complex development problems using the fundamental principles of mathematics, natural sciences and computer software design and development
A2(iv) Able to analyze complex software problems through literature research and obtain valid conclusions

Cognitive Skills (B)

B1 Development and society: Able to conduct reasonable analysis based on the background knowledge of software related fields, evaluate the impact of professional development practices and complex development problem solutions on society, health, safety, law, and culture, and understand the responsibilities that should be undertaken

B1(i) Understand the policies and regulations, technical standards, and industry norms in the field of software design and development, and follow them in their practice
B1(ii) Ability to judge, analyze and evaluate the social impact of computer software design and development practice
B1(iii) Have good professional ethics and a high sense of social responsibility, and be able to understand and assume corresponding responsibilities in the practice of computer software design and development

B2 Environment and sustainable development: Familiar with the guidelines, policies, laws and regulations of environmental protection and sustainable development, and have basic quality, environment, safety, and legal awareness

B2(i) Be familiar with the guidelines, policies, laws and regulations in environmental protection and sustainable development
B2(ii) Have basic quality, environment, safety, and legal awareness in the process of Software development project design, implementation, and operation management

B3 Professional standards: Have humanities and social science literacy and a sense of social responsibility, understand, and abide by development professional ethics and standards, and perform responsibilities
B3(i) Be able to establish a world outlook, outlook on life, and values, and possess good humanities and social science literacy
B3(ii) Be able to have a sense of social responsibility and civic engagement
B3(iii) Be able to possess professional qualities and professional ethics in software development, and perform responsibilities

B3(iv)Be able to understand equality, diversity, and inclusiveness, and can fully consider the user interface challenges in light of gender and disability.

B4 Individuals and teams: Be able to assume the roles of individuals, team members and leaders in a software project team under a multidisciplinary background

B4(i) Understand the composition of the team in a multidisciplinary context and the responsibilities of members in different roles
B4(ii) Able to assume the roles of individuals, team members and leaders in the team, and have a good team spirit

Practical and/or professional skills (C)

C1 Use modern tools be able to develop and select appropriate software design and development tools and techniques to systematically analyze, model and visualize complex design and development problems in the computer software field, and understand their limitations.

C1(i) Be able to identify and evaluate current popular and emerging technologies, and be able to evaluate their applicability according to user needs
C1(ii) Be able to develop, select and use appropriate modern design and development tools and information technology tools to complete the analysis and modeling of complex software development problems
C1(iii) Able to understand the limitations of modern tools in the prediction and simulation of complex software problems

C2 Communication: Ability to effectively communicate with industry peers and the public on complex software issues, including writing reports and design manuscripts, making presentations, expressing clearly, or responding to instructions. And have a certain international perspective, able to communicate and exchange in a cross-cultural context.

C2(i) Good English reading skills, communication ability and writing ability, and professional foreign language ability to track the development of new technology
C2(ii) Understand the composition and requirements of computer software related to professional technical documents, and can write technical documents and basic skills of technical speeches
C2(iii) Have a basic understanding of the international framework in the field of software development and related industries, and be able to communicate and exchange in cross-cultural contexts on complex design and development issues in the field of Software development

C3 Project Management: Have an understanding and skills of complex software design and development project management principles and economic decision-making methods and be able to apply them in a multidisciplinary environment, with software development project management capabilities.

C3(i) Have an understanding and skills of design/development management principles and decision-making methods while considering financial implications.
C3(ii) Ability to use appropriate project management tools and models to manage complex software projects, and be able to practice in a multidisciplinary environment

Key Skills (D)

D1 Design/Develop solutions: Design and optimize solutions for complex software problems, design systems and unit modules that meet the needs, and reflect innovative awareness in each link, considering social, health, safety, legal, cultural, and environmental factors.

D1(i) Demonstrate the professional knowledge to solve complex problems in the field of software development
D1(ii) Have the ability to design and optimize information system design and development schemes, and be able to design solutions to complex development problems
D1(iii) Be able to use theory and technical means to solve practical software problems, develop systems or modules that meet user needs, and reflect the sense of innovation in development
D1(iv) Be able to comprehensively consider social, health, safety, legal, cultural, and environmental factors in design/development

D2 Research: Based on scientific principles and methods, research on complex software problems in the field of software design and development, design feasible experimental schemes, and comprehensively analyze and interpret the results to obtain reasonable and effective conclusions

D2(i) Demonstrate the basic methods and processes of development problem research
D2(ii) Be able to use the principles and methods of software development to carry out research and practice on software problems in the software field, design and optimize experimental programs
D2(iii) Use modern development tools, verify the correctness of the experimental plan, and analyze the experimental results
D2(iv) Be able to consider gender and disability challenges when dealing with user interface operation requirements in the design and development of software

D3 Lifelong learning: have the awareness of independent learning, lifelong learning, innovation, and entrepreneurship, and can continue learning and adapt to social and technological development

D3(i) Cultivate the awareness of lifelong learning, understand a variety of theoretical and practical learning methods, and have good information acquisition capabilities and self-learning capabilities
D3(ii) Cultivate the awareness of innovation and entrepreneurship, and reflect innovation and entrepreneurial thinking in development projects

7. TEACHING, LEARNING, AND ASSESSMENT

Teaching Strategy

The teaching strategy adopted in the BSc Software Design and Development degree is based on the understanding that all students will be regarded as active learners. Obviously, the exact approach will vary from course to course, depending on the learning outcomes relevant to each class.

The generic components of our teaching and learning strategy normally involves a variety of approaches and include delivering many of the following:
- Regular use of formal lecture sessions in all courses
- Occasional workshops and seminars in some courses
- Regular use of individual and/or team-based projects in all courses
- Regular use of self-directed and directed reading in all courses
- Peer-tutoring led by advanced students in many courses
- Use of audio-visual and library resources in some courses
- Assist teaching through e-learning platform

Their knowledge is acquired through
- Course teaching
- Electronic platforms assist learning
- Bibliography reading
- Practical training in Laboratory

Their cognitive skills are developed through
- Conducting research
- Making presentations and preparing other assessments
- Students' communication and discussion after class

Their practical skills are gained through
- Applying theory to practice encountered during internship
- Using information technology to retrieve and manipulate data
- Completing graduation thesis and graduation practice

Their key skills are gained through
- Using appropriate language and communication skills
- Independent learning

Assessment Strategy

In general, our assessment strategies are in accordance with Regulations *on Examination Management of Jiangxi University of Technology* and *Measures for Evaluation and Recording of Score of General Performance at JXUT*.

Further details may be found at:
https://zhysxw.jxut.edu.cn/info/1143/1154.htm
https://zhysxw.jxut.edu.cn/info/1145/1158.htm

Grade (Comprehensive score) (Centesimal) = score of general performance (100 points*X) + score of final exams (100 points*Y). "X" refers to the proportion of the score of general performance in the comprehensive score and "Y" refers to the proportion of the score of final exams in the comprehensive score (X+Y=100%).

In general, the proportion of the score of general performance within the comprehensive score should not exceed 30%. For highly practice or skills driven courses, the proportion of the score of general performance shall not exceed 50%. Score of general performance is composed of scores of performances in class and scores of assigned works. Scores of performances in class include score of classroom disciplines, score of class attendance and score of answering questions in class. Scores of assigned works include scores of quizzes, written assignment, case study, attainment logs from experiment, presentation on skills and assessed work, 2 or 5 of which are assessed by teachers based on course features.

Students obtain their scores for final examinations by participating in final exams. According to course specification, assessment forms of final exam can be divided into "final exam" and "performance evaluation." Final exams are arranged in the last two weeks of each semester and are arranged by the Academic Affairs Office, who would issue final exam handbooks for students and for invigilators. In general, a final exam lasts for 120 minutes. Most of the final exams are conducted in a "closed-book" way. While, for courses that focus on general skills/knowledge or innovative abilities the final exams can be conducted in an "open-book" way. Performance evaluation is conducted in the last class, lasting for 90 minutes.

For students with SENDs, please refer to the syllabus for more information about SEND concessions.

8. ENTRY REQUIREMENTS

Admissions

Students are required to take part in the NCEE (Gaokao) organized by the Ministry of Education and apply for our programme. JXUT recruits students nationwide. The upper limit of the total admissions is determined by the Enrollment Plan approved by the provincial government.

9. EXIT AWARD REQUIREMENTS

Certificate of Higher Education in Software Design and Development

The UK CertHE can be awarded as an exit award for those students completing the following minimum requirements.

120 credits at FHEQ Level 4
• Pass (normally a GPA of between 1.85 and 2.99 for all Level 4 courses)
• Merit (normally a GPA of 3.0 to 3.54)
• Distinction (normally a GPA of 3.55 and above for all level 4 courses)

Diploma of Higher Education in Software Design and Development

The UK DipHE can be awarded as an exit award for those students completing the following minimum requirements.
120 credits at FHEQ Level 4
120 credits at FHEQ Level 5
• Pass (normally a GPA of between 1.85 and 2.99 for all Level 4 courses)
• Merit (normally a GPA of 3.0 to 3.54)
• Distinction (normally a GPA of 3.55 and above for all level 4 courses)

The requirements for the UK DipHE are outlined in the sections of Table 1 and Table 2 above pertaining to FHEQ Level 4 and FHEQ Level 5 requirements.

Further details may be found at: RAUL Academic Regulations for Validated Awards

10. STUDENT SUPPORT AND GUIDANCE

There is a range of student support and guidance, for both academic and general wellbeing, available to students. This is accomplished through a range of work-streams and services which positively impact learning as well as the total student life experience.

There are 15 teaching buildings and 34 dormitory buildings in the University, with about 9,000 dormitories. There are 328 classrooms of various types with a total seating capacity of 33,194, and a total of 230 experimental and practical training rooms. Students can study in the teaching area, listen to lectures, perform experimental (training) classes, and carry out academic exchanges and cultural and recreational activities. There are 44 outdoor sports grounds and 22 sports support facilities on campus, with a total area of 113,000 square meters. There is also one large sports ground and a gymnasium building. There is also a modernized library with a total area of 33,000 square meters. The library provides a total of 3,200 self-study seats for students. In addition to normal working days, it is also open to students during non-working hours. The opening hours of the library are from 8:00 a.m. to 22:30 p.m. from Monday to Sunday.

The University has set up a Student Affairs Office which is responsible for daily management and service of students. The University arranges a counselor for each class. The University has also set up a Student Financial Aid Management Center which deals with student loans and scholarships, to ensure that students enjoy equal access to education.

The University makes a variety of special provisions in exams and assessment for students with a diagnosed learning disability. This might include a physical or sensory impairment, a medical or psychiatric condition or a specific learning difficulty such as dyslexia and may require additional support or adaptations to our facilities.

The student and their inspectors are informed of the provisions after they are approved, and reminders are sent to students and invigilators shortly before the examinations.

11. PLACEMENT

The University offers a formal mechanism through which students may receive work-placement opportunities. These placements are supervised under the University's Internship Leadership Office and Teaching Affairs Office and executed by each secondary school, respectively.

These placements are supervised, career-related work experiences combined with reflective, academic study that help students apply theoretical knowledge in the workplace. There are two modes of internships: designated internship in companies with partnership of the University and individual internship in workplaces found by students themselves.
Further details may be found in *Internship Notice* at:
https://zhysxw.jxut.edu.cn/info/1161/1190.htm

The Admissions and Employment Office of JXUT provides employment guidance services for students, organizes large-scale enterprise recruitment fairs regularly every year and offers courses like Career Planning and Employment Guidance. Secondary schools organize relevant job fairs for students before graduation, providing them with information consultation, resume development and other services.

12. STUDY ABROAD

Study Aboard for this programme is not available at this moment, but we will regularly monitor and listen to students' requirement and setup relevant projects or opportunities in the future when necessary

13. REGULATORY FRAMEWORK

The bachelor's degree in software development is operated under the policy and regulatory of *National Standards for Teaching Quality of Undergraduate Majors in General Colleges and Universities*.
Further details may be found at: https://jwc.jxut.edu.cn/info/1745/8628.htm (No English translation available).

The BSc (Hons) Software Design and Development is operated under the policy and regulatory frameworks of Richmond American University London, the Framework of Higher Education Qualifications, and the UK Quality Code for Higher Education.

Also key to the background for this description are the following documents:
• QAA (2018). The Revised UK Quality Code for Higher Education. (www.qaa.ac.uk)
• QAA (2008). Higher Education Credit Framework for England: guidance on academic credit arrangements in Higher Education in England.
• SEEC (2016). Credit Level Descriptors for Higher Education. Southern England Consortium for Credit Accumulation and Transfer (www.seec.org.uk).

Ensuring and Enhancing the Quality of the Programme

The University has several methods for evaluating and improving the quality and standards of its provision. These include

• External Examiners
• Internal Moderation
• Teaching Material Review Conducted by Teaching Supervision Office
• Classroom Observations and Peer-to-peer Evaluations
• Student Feedback and Student Evaluation
• Student Forum
• Course Evaluations
• Student Feedback Staff
• New Teachers Training
• President Reception Days
• Feedback from employers
• Assessments of Ministry of Education (every 5 years)

APPENDIX 1 Curriculum Map

		Knowledge and Understanding		Cognitive Skills				Prof Skills			Key Skills		
		A1	A2	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3
FHEQ Level 4													
106020101075	College English (2)								×				×
113010201018	Linear Algebra A (Comp Sci)	×	×										
102010201701	Introduction to Programming	×									×	×	
102020201418	Data Structure and Algorithms (Theoretical)	×									×	×	
102040401211	Data Structures and Algorithms (Practical)	×						×			×		
102020301407	Operating Systems	×						×			×		
102010201503	Discrete Mathematics for IT	×	×										
102020303390	Java EE Framework Technology	×						×					
102020303353	Software Design and Architecture	×	×										
102040401213	Software Development/Design Practice	×					×	×			×		
FHEQ Level 5													
113010101035	Innovation Education							×					×
106020101071	College English (4)								×				×
106020101073	College English (3)								×				×
102010301490	Systems Analysis and Design	×		x		×		×		×	×	×	
102010301498	Object Oriented Programming and Design	×					×				×		

Code	Course											
102040401224	Computer Networks	×		×			×			×		
102020301398	Principles and Applications of Database Systems (Theoretical)	×						×		×		
102040401210	Principles and Applications of Database Systems (Practical)	×					×	×				
102020301401	Software Quality Assurance and Testing	×		×	x		×					
102040401230	Java Web Programming Technology (Practical)	×		×		×	×			×		
102020303388	Java Web Programming Technology	×		×		×	×	×				
FHEQ Level 6												
104010101374	Employment Guidance					x		x				
104010101375	Entrepreneurship Education					x			×			
119040401008	Specialized Practice			×			x	x	x			
119040401011	Undergraduate Dissertation (Design)		x	x	x	x		x		x		x
119040401010	Undergraduate Practice			x			x	x				
102020304318	Software Modelling Technology	x			x		x				x	
Plus 3 of the following major Electives												
102010304457	Software Construction	x			x		x				x	
102010304453	Software Professional Literacy	×			x		×					
102010304454	Software Requirement Analysis	x		x	x	x						

102020304306	Cloud Computing and Big Data	x						x					
102010304437	Information Security	x						x					

Programme Specification Publication Dates

Document publication date	
August 2023	Programme validation
March 2024	Curriculum updates in Level 4
July 2024	Review and update for academic year 2024-25
June 2025	Review and update for academic year 2025-26