

BSC

APPLIED

CHEMISTRY

应用化学

XJTLU | BSC
APPLIED CHEMISTRY

CAREERS

Chemistry graduates pursue a wide range of careers, from working in the chemical and pharmaceutical industries to business management. Graduates can find employment in a number of industries, including chemical (materials and synthesis), drug discovery and healthcare, food, environment and energy, research and development, and government and public service.

MODULES

The programme addresses both classical and modern developments in chemistry. Your final year project will give you a taste of a research career and expose you to the current research topics of the department. This hands-on experience with modern technologies and research activities will make you more competitive in establishing a career in both industry and academic institutions.

YEAR ONE

UK degrees are three years long whereas in China they are four, therefore we do accept students with certain qualifications directly into Year Two, which is the start of the main academic programme. Most students, however, enter into Year One, which provides you with a range of interesting modules, language classes and core skills for your degree.

YEAR THREE

INTERMEDIATE ORGANIC CHEMISTRY
INTERMEDIATE PHYSICAL CHEMISTRY
FURTHER KEY SKILLS IN CHEMISTRY
INTERMEDIATE INORGANIC CHEMISTRY
ANALYTICAL CHEMISTRY
MEASUREMENTS IN CHEMISTRY
PREPARATIVE CHEMISTRY: SYNTHESIS AND CHARACTERIZATION
INORGANIC APPLICATIONS OF GROUP THEORY
INTRODUCTION TO BIOLOGICAL CHEMISTRY

START DATE
September 2021

DURATION
Three or four years

2+2 STUDY
Available

LOCATION
Suzhou

ATTENDANCE
Full time

SCHOOL
School of Science

QUALIFICATION
XJTLU
BSc Applied Chemistry

University of Liverpool
BSc Applied Chemistry(hons,4+0)
BSc Chemistry(hons,2+2)

ACCREDITATION
Royal Society of
Chemistry

YEAR TWO

INTRODUCTORY ORGANIC CHEMISTRY I
INTRODUCTORY SPECTROSCOPY
INTRODUCTORY INORGANIC CHEMISTRY
INTRODUCTORY ORGANIC CHEMISTRY II
LABORATORY TECHNIQUES
INTRODUCTORY PHYSICAL CHEMISTRY
KEY SKILLS FOR CHEMISTRY

YEAR FOUR

ADVANCED INORGANIC CHEMISTRY
ADVANCED ORGANIC CHEMISTRY
CHEMICAL DATABASE SKILLS
FINAL YEAR PROJECT
INTRODUCTION TO MEDICINAL CHEMISTRY
INTRODUCTION TO ELECTROCHEMISTRY
INTRODUCTION TO POLYMER CHEMISTRY
ADVANCED PHYSICAL CHEMISTRY

The final year project will be carried out in a real research environment with real research objectives. At the end of the project, you are required to submit a thesis detailing the background, experiments and discussion of the results of the research undertaken. It will give you a taste of what a career in research entails.

Xi'an Jiaotong-Liverpool University
西交利物浦大学

BSC APPLIED CHEMISTRY

The BSc Applied Chemistry programme provides broad coverage of applied chemistry, drawing on the Department of Chemistry's emerging research strengths in new materials, clean and renewable energy, pharmaceuticals and healthcare.



KNOWLEDGE AND SKILLS

By the time you graduate from the BSc Applied Chemistry, you will have:

- A strong understanding of fundamental chemistry concepts
- The skills and knowledge to design and conduct experiments
- Research experience gained by the completion of a final-year research project
- High-level quantitative and problem-solving skills
- An appreciation of the application of chemistry in nanotechnology, chemical, pharmaceutical, and clean and renewable energy industries.

WHY SHOULD I STUDY APPLIED CHEMISTRY AT XJTLU?

- Tailor your studies to your own area of interest, with a range of classical and modern chemistry modules available
- Benefit from a low staff-to-student ratio, allowing you to participate in a wide range of practical exercises
- Undertake an ambitious final-year project, giving you a taste of a research career and exposing you to the current research topics of the Department of Chemistry
- Earn two degrees: an XJTLU degree from the Chinese Ministry of Education and a globally recognised degree from the University of Liverpool, a member of the Russell Group of leading UK universities.

应用化学

西浦化学系应用化学专业的主要特点是创新和应用,在扎实的基础化学知识和实验技能的学习基础上能够学为所用,推陈出新。

知识与技能

毕业生将获得以下几个方面的知识和能力:

- 对于基础化学概念的深刻理解
- 设计和进行实验的知识技能
- 通过毕业研究项目获得研究经验
- 高级定量和解决问题的技能
- 将化学知识应用于纳米技术、化学、制药、清洁和可再生能源产业的能力

专业特色

- 本专业提供一系列的现代化学课程,根据学生的兴趣爱好和特长培养专业技能
- 本专业师生比例相对较低,学生可以参与到更广阔的实践练习中
- 最前沿的毕业项目使学生体验研究事业,接触到化学系最新的研究课题
- 并能获得导师的全面指导
- 毕业生可获得中国教育部认可的西交利物浦大学学位和国际认可的利物浦大学学位



就业

本专业毕业生就业范围广泛,从化学化工类工业到工商管理,都是应用化学专业毕业生的用武之地。毕业生可以从事的职业有化学化工类企业(材料及合成),制药和医疗保健企业,食品行业,环境和能源,研究和开发,公共和政府部门。

课程

第一学年

本科阶段为四学年学制。大学一年级课程涵盖了众多实用基础课程,语言课程以及专业学习相关的核心技能学习。但对于已获得与大学一年级相应的学时、资历的学生,在校可以直接升入二年级进行专业学习。

第三学年

中级有机化学
中级无机化学
中级物理化学
化学专业技能
化学计量
制备化学
初级生物化学
分析化学
无机群论理论应用

第二学年

初级有机化学 I
初级有机化学 II
初级无机化学
初级物理化学
光谱学
基础实验技能
化学专业技能

第四学年

高分子化学导论
医药化学导论
高级有机化学
高级无机化学
化学数据库技能
电化学导论
高级物理化学
毕业课题(12个月)

BSC APPLIED CHEMISTRY 应用化学

The BSc Applied Chemistry provides you with a broad understanding of applied chemistry, drawing on the Department of Chemistry's emerging research strengths in new materials, clean and renewable energy, pharmaceuticals and healthcare.

The programme will train you to a high professional standard, equipping you to deal with challenges in academia and industry, and in highly competitive and interdisciplinary environments.

Our curriculum offers you the most advanced chemistry topics, ensuring what you learn is at the cutting-edge of the field. The knowledge of and hands-on experience with modern technologies make our graduates stand out in both academic institutions and industry.

The BSc Applied Chemistry is accredited by the Royal Society of Chemistry in the United Kingdom. This accreditation means that upon graduation, you will have partially gained the academic requirements needed to achieve chartered status and be able to demonstrate internationally recognised standards of competency as chemists.

应用化学以化学专业新兴的研究专长,培养学生在高新材料、清洁与可再生能源、制药与医疗卫生等方面对于应用化学的广泛理解。

本专业将会以高专业水准培养学生,使学生具备在学术及应用环境中应对挑战的能力,更好地适应当今激烈竞争及跨学科综合的社会环境。

本专业研究最先进的化学课题,保证学生所学为化学领域内的最尖端知识。现代科技的理论知识和实践技能使我们的毕业生无论在学术机构内还是在工业机构中都能脱颖而出。

西交利物浦大学化学系应用化学专业已经获得英国皇家化学学会(Royal Society of Chemistry)认证,该学会是世界上最重要的化学专业机构之一。获得该机构的认证意味着西浦应用化学专业的学生在毕业时已经达到国际认可的标准。