

Joint Bachelor's Degree Programme between CityU and The University of Manchester

Tentative Study Plan for CityU students of Chemistry (BSCSIU4/CHEM/2022; Cohort 2022)

The matching programme at UoM: **Bachelor of Science in Chemistry**

| | | City U - Chemistry | | UoM - BSc Chemistry | |
|---|--|---|-----------|--|------------|
| | | Minimum: 120 Credit units Maximum: 144 Credit units | | Minimum: 360 Points | |
| | | Gateway Education: 30 College requirement: 6 | | | |
| | | Major: 68 - Core: 38 - Elective: 30 Free elective: 18 | | Major: 360 - Complusory: 280 - Course options: 80 | |
| | | Courses | Credits | Courses | Credits |
| Year 1 (30 credits earned in CityU) | Sem A (15 credits, CityU) | [GE-English] GE1401 University English | 3 | | |
| | | [GE-Col Specified] MA1300 Enhanced Calculus and Linear Algebra I | 3 | | |
| | | [GE-Col Specified] CS1102 Introduction to Computer Studies Or CS1302 Introduction to Computer Programming | 3 | | |
| | | [GE] Gateway Education 1 - Area 1 | 3 | | |
| | | [CSCI-Col Requirement] CSCI1001 Employability for Scientists | 0 | | |
| | | [CSCI-Col Requirement] College Requirement Course# | 3 | | |
| | Sem B (15 credits, CityU) | [GE-Chinese] GE1501 Chinese Civilization – History & Philosophy | 3 | | |
| | | [GE-Col Specified] MA1301 Enhanced Calculus and Linear Algebra II | 3 | | |
| | | [GE-English] GE2401 English for Science | 3 | | |
| | | [GE] Gateway Education 2 - Area 2 | 3 | | |
| [CSCI-Col Requirement] CSCI1002 Career Lab for Scientists | | 0 | | | |
| | [CSCI-Col Requirement] College Requirement Course# | 3 | | | |
| Year 2 (34 credits earned in CityU) | Sem A (17 credits, CityU) | [Major-Core] CHEM2006 Principles of Inorganic Chemistry | 4 | [Major-Mandatory] CHEM10101 Introductory Chemistry | 30 |
| | | | | [Major-Mandatory] CHEM10312 Coordination Chemistry | 10 |
| | | [Major-Core] CHEM2007 Principles of Organic Chemistry | 4 | [Major-Mandatory] CHEM10412 Reactivity and Mechanism | 10 |
| | | | | [Major-Mandatory] CHEM10600 Practical Chemistry | 20 |
| | | [Major-Core] MA2172 Applied Statistics for Sciences and Engineering | 3 | | |
| | | Major-Elective 1 | 3 | [Major-Optional] Select 10 credits of the following courses (all courses carry 10 credits): BIOL10551 Fundamentals of Biochemistry BMAN10011 Fundamentals of Management BMAN10552 Fundamentals of Finance GEOG10401 Environmental Processes and Change: The Global System GEOG10422 Dynamic Earth HSTM10272 Bodies in History: An Introduction to the History of Medicine MATH19641 Mathematics 1Q1 MATH19682 Mathematics 1E2 MCEL10002 Entrepreneurial Skills PHAR10102 Properties of Medicines | 10 |
| | | [GE] Gateway Education 3 - Area 3 | 3 | | |
| | Sem B (17 credits, CityU) | [Major-Core] CHEM2004 Principles of Analytical Chemistry | 4 | [Major-Mandatory] CHEM10520 Chemists' Toolkit | 20 |
| | | [Major-Core] CHEM2008 Principles of Physical Chemistry | 4 | [Major-Mandatory] CHEM10212 Energy and Change | 10 |
| | | [Major-Core] CHEM2073 Entrepreneurship Programme In Chemistry I | 3 | | |
| | | Major-Elective 2 | 3 | [Major-Optional] Select 10 credits of the following courses (all courses carry 10 credits): BIOL10551 Fundamentals of Biochemistry BMAN10011 Fundamentals of Management BMAN10552 Fundamentals of Finance GEOG10401 Environmental Processes and Change: The Global System GEOG10422 Dynamic Earth HSTM10272 Bodies in History: An Introduction to the History of Medicine MATH19641 Mathematics 1Q1 MATH19682 Mathematics 1E2 MCEL10002 Entrepreneurial Skills PHAR10102 Properties of Medicines | 10 |
| | | [GE] Gateway Education 4 - Area 1/2/3 | 3 | | |
| | | Total Credits earned in CityU | 64 | Total Credits transferred from CityU | 120 |
| | | [Major-Core] CHEM3015 Organic Chemistry | 4 | [Major-Mandatory] CHEM20411 Organic Synthesis | 10 |
| | | | | [Major-Mandatory] CHEM20412 Structure and Reactivity of Organic Molecules | 10 |
| | | | | [Major-Mandatory] CHEM22600 Practical Chemistry | 30 |
| | | [Major-Core] CHEM3027 Analytical Chemistry | 4 | [Major-Mandatory] CHEM20500 Chemists' Toolkit II | 10 |
| | | | | [Major-Mandatory] CHEM20611 Integrated Spectroscopy and Separations | 10 |

| | | | | | |
|---|----------------------------|---|---|---|----|
| Year 3 (34 credits transferred from UoM) | Sem A (17 credits, UoM) | | | [Major-Optional] Select 10 credits of the following courses (all courses carry 10 credits): CHEM20711 Contemporary Themes in Chemistry CHEM20712 Environmental and Green Chemistry CHEM20722 Biomolecular Structure and Function UCIL20021 Leadership in Action Unit UCIL20022 Leadership in Action Unit UCIL20031 Leadership in Action Online Unit UCIL20032 Leadership in Action Online Unit UCIL20112 Understanding Mental Health UCIL20122 AI: Robot Overlord, Replacement, or Colleague? UCIL20132 Trust and Security in a Digital World: From Fake News to Cyber Criminals UCIL20142 From Antarctica to Outer Space: Surviving and Thriving in Extremes UCIL20211 Are We Alone? The Search for Extraterrestrial Life UCIL20282 The Information Age UCIL20311 Creating a Sustainable World: 21st Century Challenges and the Sustainable Development Goals UCIL20882 Current Topics in Biology UCIL21202 Bioethics: Contemporary Issues in Science and Biomedicine UCIL21301 Communicating with Confidence UCIL21302 Communicating with Confidence UCIL22001 Essential Enterprise UCIL22002 Essential Enterprise UCIL26002 Digital Society: Your Place in a Networked World UCIL29002 Understanding The Universe: The Grand Challenges of Today | 10 |
| | | Major-Elective 3 | 3 | | |
| | | Major-Elective 4 | 3 | | |
| | | Free elective 1 | 3 | | |
| Sem B (17 credits, UoM) | | [Major-Core] CHEM3014 Inorganic Chemistry | 4 | [Major-Mandatory] CHEM20311 Group Theory: Fundamentals and Applications | 10 |
| | | | | [Major-Mandatory] CHEM20312 Inorganic Chemistry | 10 |
| | | [Major-Core] CHEM3016 Physical Chemistry | 4 | [Major-Mandatory] CHEM20212 Core Physical Chemistry | 10 |
| | | | | [Major-Optional] Select 10 credits of the following courses (all courses carry 10 credits): CHEM20711 Contemporary Themes in Chemistry CHEM20712 Environmental and Green Chemistry CHEM20722 Biomolecular Structure and Function UCIL20021 Leadership in Action Unit UCIL20022 Leadership in Action Unit UCIL20031 Leadership in Action Online Unit UCIL20032 Leadership in Action Online Unit UCIL20112 Understanding Mental Health UCIL20122 AI: Robot Overlord, Replacement, or Colleague? UCIL20132 Trust and Security in a Digital World: From Fake News to Cyber Criminals UCIL20142 From Antarctica to Outer Space: Surviving and Thriving in Extremes UCIL20211 Are We Alone? The Search for Extraterrestrial Life UCIL20282 The Information Age UCIL20311 Creating a Sustainable World: 21st Century Challenges and the Sustainable Development Goals UCIL20882 Current Topics in Biology UCIL21202 Bioethics: Contemporary Issues in Science and Biomedicine UCIL21301 Communicating with Confidence UCIL21302 Communicating with Confidence UCIL22001 Essential Enterprise UCIL22002 Essential Enterprise UCIL26002 Digital Society: Your Place in a Networked World UCIL29002 Understanding The Universe: The Grand Challenges of Today | 10 |
| | Major-Elective 5 | 3 | | | |
| | Major-Elective 6 | 3 | | | |
| | Free elective 2 | 3 | | | |
| Year 4 (24 credits transferred from UoM) | Sem A (12 credits, UoM) | Major-Elective 7 | 3 | [Major-Mandatory] CHEM30211 Core Chemistry 3 | 10 |
| | | Major-Elective 8 | 3 | [Major-Mandatory] CHEM30311 Core Chemistry 2 | 10 |
| | | | | [Major-Mandatory] CHEM30620 Advanced Practical Training | 40 |
| | | | | [Major-Optional] Select 40 credits of the following courses (all courses carry 10 credits unless specified otherwise): CHEM30111 Personalised Learning Unit 1 CHEM30112 Personalised Learning Unit 2.10 CHEM30122 Personalised Learning Unit 2.20 (20 credits) CHEM30432 Bioorganic and Medicinal Chemistry CHEM30712 Biosynthesis and Bioenergetics CHEM30722 Biomolecular Structure and Function 2 EART30252 Environmental Radioactivity and Nuclear Power HSTM31212 The Nuclear Age HSTM32011 From Sherlock Holmes to CSI: A History of Forensic Medicine HSTM33201 Climate Change & Society MCEL30011 Advanced Technology Enterprise MCEL30012 Advanced Technology Enterprise MCEL30022 Interdisciplinary Sustainable Development | 40 |
| | Free elective 3 | 3 | | | |
| | Free elective 4 | 3 | | | |

| | | | | |
|----------------------------------|---|------------|---|------------|
| | | | | |
| Sem B (12 credits, UoM) | Major-Elective 9 | 3 | [Major-Mandatory] CHEM30312 Core Chemistry 4 | 10 |
| | Major-Elective 10 | 3 | [Major-Mandatory] CHEM30411 Core Chemistry 1 | 10 |
| | Free elective 5 | 3 | | |
| | Free elective 6 | 3 | | |
| | | | | |
| | Total Credits transferred from UoM[^] | 58 | Total Credits earned in UoM | 240 |
| | Credit units earned towards CityU degree | 122 | Credit units earned towards UoM degree | 360 |

[^] Maximum 60 credits can be transferred to CityU.

For details of the college requirements, please refer to ARRO's website at:

http://www.cityu.edu.hk/catalogue/ug/current/catalogue/catalogue_UC.htm?page=B/col_sch_CSCI.htm