MANCHESTER
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The University of Manchester

School of Chemistry

Programme Handbook
2010/11

This edition of this *Handbook* is, as far as possible, accurate and up-to-date when published, but the matters which it covers are naturally subject to change from time to time, and the School reserves the right to make such changes without notice.

All students who are on joint programmes with external schools should ensure they have access to the programme handbook of the external school, and are acquainted with the regulations therein.

Students must register or re-register with the University at the beginning of each year of attendance. Students on a placement year are required to pre-register at the end of the previous academic year, before they start their placement year.

This *Handbook* is available on the School's Intranet website:

http://www.chemistry.manchester.ac.uk/intranet/

SESSION 2010/11
School of Chemistry
The University of Manchester
Manchester M13 9PL

Telephone no: (0161) 306 4410
(0161 is the Manchester Area Code number)

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Part I

General Information

Introduction

1.1 Welcome

Welcome to the School of Chemistry of The University of Manchester. This booklet is designed to serve as a starting point when you have questions or problems, and contains information relevant to your degree programme. As well as outlining programme regulations the handbook contains information on assessment, progression through the programme, student support services, learning resources available and student feedback systems.

Part II of the handbook is the Chemistry Course Unit Directory, which lists all the available course units in the School. This includes information such as course content; the names of staff who teach on the course; how units are assessed; what the aims and learning outcomes of each unit are; and a reading list.

The Programme Handbook contains almost all of the important information that you will need to know during your time in the University.

If you need help, advice or clarification on any academic or personal matter, seek help straight away. All members of staff are willing to help, but where possible you should initially contact one of a number of designated people. In general if your query is related to academic or pastoral matters, you should contact either:

- your Personal Tutor;
- your Programme Director;
- the Director of Undergraduate Studies

For all other types of query you should first of all consult the Education Office.

1.2 Welcome Week

Your first few weeks at The University of Manchester may at times be daunting. Members of staff are very willing to help with any difficulties you may have: do make sure you ask for help with any difficulties as early as possible.

The School runs an induction event for first year students, and information about it will be made available to new students at registration. Queries may be directed to the Education Office.

1.3 Dates for Academic Year 2010/11

First Semester	**Start Date**	**End Date**
Attendance	20 September 2010	17 December 2010
Christmas Vacation	18 December 2010	16 January 2011
Semester 1 Exam Period	17 January 2011	28 January 2011

Second Semester	**Start Date**	**End Date**
Attendance	31 January 2011	8 April 2011
Easter Vacation	9 April 20110	2 May 2011
Attendance	2 May 2011	18 May 2011
Semester 2 Exam Period	19 May 2011	8 June 2011
Re-examination Period	22 August 2010	2 September 2011

Note: semester dates for current and future academic years are published online at:
http://www.studentnet.manchester.ac.uk/crucial-guide/academic-life/semesterdates/

1.4 Contact Details

Education Office
School of Chemistry
Chemistry Building
University of Manchester
Oxford Road
Manchester M13 9PL

Tel: (0161) 306 4410
Fax: (0161) 275 4598

School's website**: www.chemistry.manchester.ac.uk**

1.5 Communication

Efficient communication between staff and students is essential and staff will contact you via your university email address, please ensure you check this regularly as staff will not use any other email address other than your University allocated address. There are also separate notice boards for each year of study in the concourse. It is your responsibility to check your email regularly and to consult the notice boards frequently.

Important Note: If you send a message from a private email address, you should also be aware that, due to the increasing problems of spam and viruses, a member of staff may sometimes have legitimate cause for suspicion about your message, and may therefore be obliged to delete it without opening it. This is especially likely to apply if your name and the subject matter of your message are not clearly identified in the email address and header.

At times, you may also be contacted by letter, and therefore any change in your term time or home address should be updated by you via the Student Portal without delay.

Failure to ensure your email or home address is correct may result in missing important communications such as changes to examination dates.

1.6 Key Academic Staff

	Room	Email
Head of School		
Prof JC Whitehead	7.21	Christopher.Whitehead@manchester.ac.uk
Director of Teaching		
Prof G Procter	1.061	Garry.Procter@manchester.ac.uk
Director of Undergraduate Studies		
Dr AC Regan	4.02D	Andrew.regan@manchester.ac.uk
Chief Examiner		
Prof D Collison	4.02F	David.Collison@manchester.ac.uk

	Room	Email
Examination Officer		
Dr A Brisdon	4.02H	Alan.Brisdon@manchester.ac.uk
Quality Assurance & Learning Enhancement Officer		
Dr A Horn	6.22A	Andrew.B.Horn@manchester.ac.uk
Disability Support Officer		
Miss K Charters	G.024	Karen.Charters@manchester.ac.uk
Skills Coordinator		
Dr M Attfield	2.65	Martin.Attfield@manchester.ac.uk
PASS Coordinator		
Dr D Berrisford	MIB 2.025	David.Berrisford@manchester.ac.uk
Programme Directors		
Chemistry		
Dr A Regan	4.02D	Andrew.regan@manchester.ac.uk
Chemistry with Patent Law		
Prof D Collison	4.02F	David.Collison@manchester.ac.uk
Chemistry with Industrial Experience		
Dr A Horn	6.22A	Andrew.B.Horn@manchester.ac.uk
Chemistry with Study in Europe		
Dr P Quayle	4.02C	Peter.Quayle@manchester.ac.uk
Chemistry with Study in North America		
Dr P Quayle	4.02C	Peter.Quayle@manchester.ac.uk
Chemistry with Medicinal Chemistry		
Dr D Procter	4.19	David.Procter@manchester.ac.uk
Chemistry with Business and Management		
Prof P Popelier	MIB 1.020	Paul.Popelier@manchester.ac.uk
Chemistry with Forensic Science/Analytical Chemistry		
Dr R Pritchard	4.02J	Robin.Pritchard@manchester.ac.uk
Year 3/4 MChem Project Coordinator		
Dr J. McDouall	7.33	Joe.McDouall@manchester.ac.uk
Laboratory Supervisors:		
Year 1 Measurements Lab		
Dr J Agger	1.60	j.agger@manchester.ac.uk
Year 1 Synthesis Lab		
Prof G Procter	1.061	Garry.Procter@manchester.ac.uk
Year 2 Measurements Lab		
Dr N A Burton	7.32	Neil.Burton@manchester.ac.uk
Year 2 Synthesis Lab		
Dr P Quayle	4.02C	Peter.Quayle@manchester.ac.uk
Year 3 Measurements Lab		
Dr V Ramesh (semester 1)	MIB G.108	Vasudevan.Ramesh@manchester.ac.uk
Prof P Gorry(semester 2)	6.07	Peter.Gorry@manchester.ac.uk
Year 3 Synthesis Lab		
Dr D Berrisford	MIB 2.025	David.Berrisford@manchester.ac.uk

Administration:

Head of School Administration

Ms N Snook	G.026	Nicky.Snook@manchester ac.uk

Senior Education Officer

Karen Charters	G.024	Karen.Charters@manchester.ac.uk

Education Administrators

Angela Dermody	G.020	Angela.Dermody@manchester.ac.uk
Holly Knight	G.020	Holly.Knight@manchester.ac.uk
Helen Kreissl	G.020	Helen.Kreissl@manchester.ac.uk

1.7 Health and Safety

The School's health and safety policy is reviewed by the Health and Safety Committee. The full Health and Safety manual can be found on the Information page of the Chemistry Intranet

http://www.chemistry.manchester.ac.uk/intranet/health/

The *Safety and Policy Handbook for Undergraduate Students* can be found under the heading 'Undergraduate Health and Safety' of the main page

Degree Programme Requirements

1.8 Overview

All university degree programmes are built on units (usually 10 or 20 credits). As an indication, a typical 10 credit unit is expected to involve 100 hours of study. This time includes direct contact hours, such as lectures, tutorials and laboratories, as well as independent studying and revision.

In your first year you will study 120 credits worth of units and then 120 credits in your subsequent years (apart from the the Patent Law programme, which is 130 credits in year 2 and 110 in year 3). For each programme there are compulsory units that define your Honours School plus a range of optional units. The details of compulsory units and the recommended optional units for each degree programme are laid out in tabular form on the following pages. You may be able to take other units but you should seek advice from the Director of Undergraduate Studies before opting to do so.

Flexibility

Our Chemistry degree programmes are designed to give students choice and flexibility. You can select your option units from a wide range of units within and outside the School, subject to timetabling constraints. If necessary, you can change your optional units at the beginning of each semester (usually within the first TWO weeks). You can also change your programme of studies, subject to requirements. Before changing programme you **MUST** consult the Director of Undergraduate Studies.

LEAP (Language Experience for All Programmes)

Even if you are not doing the sandwich programme in Chemistry with Study in Europe, you may wish to continue studying a language which you have previously studied at school, or to take up a new one. To register you must call into the **LEAP Advisory Office** (Room SG4, in the South Wing, Arts Building) to complete an application form (also available at www.langcent.manchester.ac.uk/undergraduate/leap/)

1.9 Year-by-year Programme Structure

First Year

Unit Code	Unit Title	Credits	Semester	**Chemistry** (BSc/MChem)	**Chem with Ind Exp** (MChem)	**Chem with Study in NA** (MChem)	**Chem with Study in Europe** (MChem)	**Chem with Medicinal Chem** (BSc/Mchem)	**Chem with Patent Law** (MChem)	**Chem with Bus & Management** (MChem)	**Chem with Forensic & Analytical Chem** (Mchem)
CHEM	**UNITS in CHEMISTRY**										
10101	Introductory Chemistry	30	1	core	core	core	core	core	core	core	core
10520	Communicating Chemistry	10	1+2	core	core	core	core		core		core
10521	Communicating Chemistry	5	1					core			
10212	Physical/Theoretical Chemistry	10	2	core	core	core	core	core	core	core	core
10312	Inorganic/Structural Chemistry	10	2	core	core	core	core	core	core	core	core
10412	Organic Chemistry	10	2	core	core	core	core	core	core	core	core
10511	Quantitative Chemistry	10	1	core	core	core	core	core	core	core	core
10600	Practical Chemistry	20	1+2	core	core	core	core	core	core	core	core
10812	Intro to Forensic and Analytical Chem	10	2	A	A	A					core
PHAR	**UNITS IN PHARMACY**										
10252	Pharmaceutical Chemistry	15	2					core			
10111	Foundation Biology	10	1					core*			
BMAN	**UNITS IN BUSINESS & MANAGEMENT PROCESSES (KNOWN AS BMAP)**										
10721	Management & Study Skills	10	1							core	
10011	Fundamentals of Management	10	1							core	
10552	Fundamentals of Finance	10	2							core	
LAWS	**UNITS IN LAW**										
10261	Intro to the English Legal System	10	1						core		core
10302	Business Law 1	10	2						core		
MATH	**UNITS in MATHS**										
19641	Mathematics Semester 1	10	1	A	A	A					
19682	Mathematics Semester 2	10	2	A	A	A					
GEOG	**UNITS in GEOGRAPHY**										
10401	Environmental Processes and Change	10	1	A	A	A					
10602	Hazards	10	2	A	A	A					
EART	**UNITS in EARTH SCIENCES**										
10032	Environmental Processes and Change	10	1	A	A	A					
BIOL	**UNITS in LIFE SCIENCES**										
10551	Fundamentals of Biochemistry	10	1	A	A	A					
HSTM	**UNITS in CHSTM**										
10221	Science and the Modern World	10	1	A	A	A					
PHYS	**UNITS in PHYSICS**										
10191	Intro. to Astronomy and Cosmology	10	1	A	A	A					
MSEC	**UNITS in MSEC**										
10022	Chemistry and Industry	10	2	A	A	A					
UL****	**UNITS in LANGUAGE**										
10##1/2	Units in a Foreign Language	20	1+2	B	B	B	core				
total no of credits studied				120	120	120	120	120	120	120	120
total core units				100	100	100	120	110/120	110/120	120	
total optional units				20$^{\alpha}$	20$^{\alpha}$	20$^{\alpha}$	0	0/10*	0/10*	0	0

α : select any 2 units from A, or a language unit (B)

*: students without A-level Biology MUST take this option. Those with A-level Biology take a 10 credit option from the other lists. This should be a semester 2 course.

Second Year

Unit Code	Unit Title	Credits	Semester	**Chemistry** (BSc/MChem)	**Chem with Ind Exp** (MChem)	**Chem with Study in NA** (MChem)	**Chem with Study in Europe** (MChem)	**Chem with Medicinal Chem** (BSc/Mchem)	**Chem with Patent Law** (MChem)	**Chem with Bus & Management** (MChem)	**Chem with Forensic & Analytical Chem** (Mchem)
CHEM	**UNITS in CHEMISTRY**										
20210	Core Physical Chemistry A	20	1+2	core	core	core	core	core	core	core	core
20310	Core Inorganic Chemistry A	20	1+2	core	core	core	core	core	core	core	core
20410	Core Organic A	20	1+2	core	core	core	core	core	core	core	core
20500	Communicating Chemistry	10	1+2	core	core	core	core	core	core		core
22600	Practical Chemistry	30	1+2	core	core	core	core	core	core	core	core
20710	Polymer, Computational & Materials Chemistry	20	1+2	core	core	core					
20802	Law Seminar Programme	10	2						core		
21811	Forensic Science	10	1								core
PHAR	**UNITS IN PHARMACY**										
20231	Drug Toxicity	10	1					core			
20212	Medicinal Chemistry	10	2					core			
20192	Polymer/Forensic Science	10	1								core
BMAN	**UNITS IN BUSINESS & MANAGEMENT PROCESSES (KNOWN AS BMAP)**										
21012	Global Contexts of Business & Management	10	1+2							core	
10621	Fundamentals of Financial Reporting	10	1							core	
10632	Fundamentals of Accounting	10	2							core	
LAWS	**UNITS IN LAW**										
20301	Business Law 2	10	1						core		
20312	Principles of European Law	10	2						core		
	UNIT IN A FOREIGN LANGUAGE										
2/3###0		20	1&2				core				
total no of credits studied				120	120	120	120	120	130	120	120
total core units				120	120	120	120	120	130	120	120
total optional units				0	0	0	0	0	0	0	0

Third Year – BSc Programmes

Unit Code	Unit Title	Credits	Semester	**Chemistry** (BSc)	**Chem with Ind Exp** (BSc)	**Chem with Medicinal Chem** (BSc)	**Chem with Bus & Management** (BSc)
CHEM	**UNITS in CHEMISTRY**						
30211	Core Physical B	10	1	core		core	core
30212	Core Physical C	10	2	A			
30231	Cheminformatics & Algorithm Design	10	1	B			
30311	Core Inorganic B	10	1	core		core	core
30312	Core Inorganic C	10	2	A		core	
30411	Core Organic B	10	1	core		core	core
30412	Core Organic C	10	2	A		core	
30432	Bioorganic & Medicinal Chemistry	10	2	B		core	
30522	Polymer Chemistry	10	2	B			
30532	Topics in Environmental Chemistry	10	2	B			
30600	BSc Project & Labs	40	1+2	core		core	core
30650	BSc Placement	120	1+2		core		
31331	Bioinorganic Chemistry	10	1	B			
BMAN	**UNITS IN BUSINESS & MANAGEMENT**						
30010	Management and Technology	20					core
30021	Marketing	10					core
30022	Strategy	10					core
30042	Human Resource Management	10					core
PHAR	**UNITS IN PHARMACY**						
30371	Chemotherapy	10				core	
30332	Rational Drug Design	10				core	
MSEC	**UNITS IN BUSINESS & ENTERPRISE**						
30001	Technology Enterprise with Tools & Techniques	10	1	C			
30011/2	Advanced Technology Enterprise	10	1/2	C			
30111/2	Tools & Techniques for Enterprise	10	1/2	C			
HSTM	**UNITS IN THE HISTORY OF SCIENCE**						
36201	Issues in Contemporary Medicine	10	1	C			
30832	Madness and Society	10	2	C			
31212	The Nuclear Age	10	2	C			
33402	Health and Disease in Africa	10	2	C			
MLPX	**MANCHESTER LEADERSHIP PROGRAMME**						
20021	Leadership in Action	10	1	C			
20031/2	Leadership in Action online unit	10	1/2	C			
Total number of credits studied				120	120	120	120
Total core credits				70	120	120	120
Total optional credits				50*	0	0	0

* BSc Chemistry: select 5 optional units; must include at least 2 from A and 1 from B, maximum of 20 credits from C

Third Year – MChem Programmes

Unit Code	Unit Title	Credits	Semester	**Chemistry** (MChem)	**Chem with Ind Exp** (MChem)	**Chem with Study in NA** (MChem)	**Chem with Study in Europe** (MChem)	**Chem with Medicinal Chem** (Mchem)	**Chem with Patent Law** (MChem)	**Chem with Bus & Management** (MChem)	**Chem with Forensic & Analytical Chem** (Mchem)
CHEM	**UNITS in CHEMISTRY**										
30211	Core Physical B	10	1	core				core	core	core	core
30212	Core Physical C	10	2	core					A	A	core
30231	Cheminformatics & Algorithm Design	10	1	A							A
30311	Core Inorganic B	10	1	core				core	core	core	core
30312	Core Inorganic C	10	2	core	core			core	A	A	core
30411	Core Organic B	10	1	core	core			core	core	core	core
30412	Core Organic C	10	2	core				core	A	A	core
30432	Bioorganic & Medicinal Chemistry	10	2	A				core			A
30522	Polymer Chemistry	10	2	A							A
30532	Topics in Environmental Chemistry	10	2	A							A
30620	MChem Group Project	40	1+2	core				core	core	core	core
30630	Study in a Foreign University	120	1+2			core	core				
30640	MChem Placement	100	1+2		core						
31331	Bioinorganic Chemistry	10	1	A							A
BMAN	**UNITS IN BUSINESS & MANAGEMENT PROCESSES (KNOWN AS BMAP)**										
30100	Management & Technology	20	1+2							core	
30042	Human Resource Management	10	2							core	
PHAR	**UNITS IN PHARMACY**										
30341	Chemotherapy	10	1					core			
30332	Rational Drug Design	10	2					core			
LAWS	**UNITS IN LAW**										
30322	Intellectual Property Law	20	2						core		
MSEC	**UNITS IN MANCHESTER SCIENCE & ENTERPRISE CENTRE**										
30001	Tech Enterprise w Tools & Techniques	10	1	B							B
30011/ 2	Advanced Technology Enterprise	10	1/2	B							B
30111/ 2	Tools & Techniques for Enterprise	10	1/2	B							B
HSTM	**UNITS IN HISTORY OF SCIENCE, TECHNOLOGY AND MEDICINE**										
36201	Issues in Contemporary Medicine	10	1	B							B
30832	Madness & Society	10	2	B							B
31212	The Nuclear Age	10	2	B							B
33402	Health & Disease in Africa	10	2	B							B
MLPX	**MANCHESTER LEADERSHIP PROGRAMME**										
20021	Leadership in Action	10	1	B							B
20032	LIA online unit	10	2	B							B
total no of credits studied				120	120	120	120	120	110	120	120
total core units				100	120	120	120	120	110	100	120
total optional units				20*	0	0	0	0	20^{+}	20^{+}	20*

* **Chemistry and Chemistry with Forensic and Analytical Chemistry**: select 2 optional units; must include at least 1 from A
$^{+}$ **Chem w Bus & Man, Chem w Patent Law**: select 2 from option A

Fourth Year

Unit Code	Unit Title	Credits	Semester	**Chemistry** (MChem)	**Chem with Ind Exp/Chem w For & An Chem (placement)** (MChem)	**Chem with Study in NA** (MChem)	**Chem with Study in Europe** (MChem)	**Chem with Medicinal Chem** (Mchem)	**Chem with Patent Law** (MChem)	**Chem with Bus & Management** (MChem)	**Chem with Forensic and Analytical Chem** (MChem)
CHEM	**UNITS in CHEMISTRY**										
41600	MChem Yr4 Project Report	30	1+2	core	core	core	core	core	core	core	core
42600	MChem Yr4 Project Execution	20	1+2	core	core	core	core	core	core	core	core
43600	MChem Yr4 Project Presentation/Viva	10	1+2	core	core	core	core	core	core	core	core
40201	Advanced Theoretical Chemistry	10	1	A	A	A	A	A	A	A	A
40211	Advanced Instrumental Methods	10	1	A	A	A	A	A	A	A	A
40232	Case Studies in Exp Phys Chem	10	2	A	A	A	A	A	A	A	A
40262	Biophysical Chemistry	10	2	A	A	A	A	A	A	A	A
40311	Radiochemistry & Nuclear Chemistry	10	1	A	A	A	A	A	A	A	A
40322	Topics in Inorganic Chemistry	10	2	A	A	A	A	A	A	A	A
40411	Advanced Organic Synthesis	10	1	A	A	A	A	A	A	A	A
40422	Molecular Interactions & Analysis	10	2	A	A	A	A	A	A	A	A
40610	Patent Law Project	10	1+2						core		
41412	Advanced Bioorganic Chemistry	10	2	A	A	A	A	core	A	A	A
41521	Organometallic Chemistry	10	1	A	A	A	A	A	A	A	A
30211	Core Physical Chemistry B	10	1		core	core	core				
30212	Core Physical Chemistry C	10	1		B	B	B	B			
30231	Molecular Simulation and Spectral Analysis	10	1	B	B	B	B	B			B
30311	Core Inorganic Chemistry B	10	1		B	B	B				
30412	Core Organic Chemistry C	10	2		B	B	B				
30432	Bioorganic & Medicinal Chemistry	10	2	B	B	B	B				B
30522	Polymer Chemistry	10	2	B	B	B	B	B			B
30532	Topics in Environmental Chemistry	10	2	B	B	B	B	B			B
31331	Bioinorganic Chemistry	10	1	B	B	B	B	B			B
BMAN	**UNITS IN BUSINESS & MANAGEMENT**										
40001	Broad Spectrum Project	10	1							core	
30021	Marketing	10	1							B	
30022	Strategy	10	2							B	
31031	Organisational Analysis	10	1							B	
PHAR	**UNITS IN PHARMACY**										
40162	Cancer Biology & Therapy	10	2					core			
40250	Prod & Charac of Clinically Important Drugs	10	both					core			
HSTM	**UNITS IN CHSTM**										
3xxx1/2	10 credit units as offered	10	1/2	C				C			C
LAWS	**UNITS IN LAW**										
42222	European Competition Law	20	2						core		
MSEC											
30001/ 2	Tech Enterprise w Tools &Techniques	10	1/2	C				C			C
30011/ 2	Advanced Technology Enterprise	10	1/2	C				C			C
30111/ 2	Tools & Techniques for Enterprise	10	1/2	C				C			C
total no of credits studied				120	120	120	120	120	120	120	120
total core units				60	70	120	120	90	90	70	120
total optional units				60*	50$^{\Delta}$	0	0	30$^{\$}$	30^{+}	50$^{@}$	0

* **Chemistry** , **Chem w Forensic & An Chem**– choose 6 options, at least 3 from A and no more than 1 from C

$^{+}$ **Chem w Patent Law** – choose 3 from A

$^{\Delta}$ **Chemistry with IE, Chemistry w Foresic & Analytical Chem** (placement route) – 3 options from A and 2 from B

$^{\$}$ **Medicinal Chemistry** – 3 options, at least 2 must be from A $^{@}$ **Chem w Bus & Man** –3 from A and 2 from B

Teaching, Learning and Assessment

1.10 Aims and Learning Outcomes

The Chemistry degree programmes aim to:

- provide education and training in chemistry using a modular structure that allows a high degree of flexibility and choice;
- provide guidance and support to encourage students to achieve their full academic potential and gain access to a wide range of careers.

For the BSc programmes, they aim to provide a level of knowledge, understanding and skills that are consistent with professional recognition by the Royal Society of Chemistry (RSC), whilst for the MChem programmes, the level of knowledge, understanding and skills provided are consistent with professional accreditation by the RSC.

Successful chemistry graduates should be able to:

- demonstrate an understanding and a critical awareness of a substantial area of Inorganic, Organic and Physical chemistry;
- demonstrate an understanding of fundamental physicochemical principles and an ability to apply that knowledge to the solution of theoretical and practical problems;
- demonstrate an in-depth knowledge of advanced topics related to current research in chemistry.

In addition, students who complete the integrated masters programmes should be able to:

- understand and critically evaluate further advanced material at Masters level on current aspects of chemical research and solve problems of an advanced nature;
- conduct a substantial research project and demonstrate that they can apply their knowledge within a variety of problem solving contexts with originality.

In addition particular degree programmes have their distinctive aims and learning outcomes, which are briefly outlined as follows:

Chemistry with Study in North America also aims to provide experience of academic and day-to-day life in North America. Successful graduates of this programme should be able to develop self-confidence and communication skills with people of a different culture and background.

Chemistry with Patent Law also aims to provide students with sufficient knowledge, skills and understanding such that they may practice in the area of intellectual property law with the benefit of a strong scientific background. Successful graduates of this programme should be able to discuss the principles of legal method and systems, including concepts in Contract, Business, Intellectual Property, Company, European and Competition Law.

Chemistry with Business and Management also aims to provide students with a sufficient background in business and management to form the basis of a career in management, especially in a science or technology based organisation; and with sufficient grasp of business and management that enables them to operate effectively at all levels of management.

Successful graduates of this programme should be able to:

- demonstrate knowledge and understanding of management issues in relation to markets, customers, finance, people, technology, products, services and business strategy;
- demonstrate relevant knowledge of organisations encompassing the internal aspects, functions and processes of organisations.

Chemistry with Medicinal Chemistry also aims to provide a broad based, scientifically strong education in organic/biological chemistry, and in the selected area of Pharmacy which will enable students to enter those professions requiring a knowledge of medicinal chemistry.

Successful graduates of this programme should be able to demonstrate knowledge and understanding of human biology and biochemistry relevant to medicinal chemistry, and in-depth knowledge of chemotherapy, rational drug design and other advanced topics related to current research in medicinal chemistry.

Chemistry with Study in Europe also aims to provide experience of academic and day-to-day life in a non-UK European country. Successful graduates of this programme should be able to develop self-confidence and communication skills, both written and verbal, in a European foreign language.

Chemistry with Industrial Experience also aims to provide opportunity for students to apply their chemical knowledge and skills in the solution of practical and theoretical problems in chemistry, in both academic and industrial contexts. During the year out successful graduates of this programme should be able to develop a range of professional skills through direct experience within the industry.

Chemistry with Forensic and Analytical Chemistry. The course is based around a core Chemistry degree with a strong analytical component. The Forensic Science Service offers only a few new jobs each year, but this degree coupled with Manchester University's enviable graduate employment statistics, will certainly allow you to be a strong applicant. However, because this degree still covers all the core chemistry material, it will open up many other possibilities too, such as developing medicines, or working with new materials. The special analytical flavour of the degree would also equip you for the huge number of jobs in analytical chemistry, and we would also hope that strong communication skills would help you in almost any career that you might choose.

1.11 Assessment

1.11.1 Objectives of Assessment

The purpose of assessment is to monitor student progress, to determine eligibility to proceed to subsequent years of programmes, and to determine the class of degree awarded.

1.11.2 Structure of Assessment

Assessment is by a combination of formal examinations and continuously assessed work. The latter includes practical work, skills assignments, tutorials and projects. Details of the components of assessment for each unit can be found under individual course unit descriptions in Part III of the Handbook. Most units are assessed during the examination period at the end of the semester in which the units are taught.

1.11.3 Year-by-year Assessment

The minimum pass mark for each course unit is 40%. The overall mark for the year is calculated based on the credit rating of each unit.

The procedure for calculating the final mark for a chemistry degree, or for the chemistry component of a joint honours degree, is summarized in the following table.

BSc Programmes	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Chemistry	0%	40%	60%	n/a
Chemistry with Medicinal Chemistry	0%	40%	60%	n/a
Chemistry with Business & Management	0%	40%	60%	n/a
Chemistry with Industrial Experience	0%	40%	0%	60%

MChem Programmes	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Chemistry	0%	20%	30%	50%
Chemistry with Medicinal Chemistry	0%	20%	30%	50%
Chemistry with Patent Law	0%	20%	30%	50%
Chemistry with Business & Management	0%	20%	30%	50%
Chemistry with Industrial Experience	0%	25%	25%	50%
Chemistry with Study in Europe	0%	25%	25%	50%
Chemistry with Study in North America	0%	25%	25%	50%
Chemistry with Forensic and Analytical Chemistry	0%	20%	30%	50%

1.11.4 Determination of Degree Classification

The relationship between the degree classes and the final assessment mark is normally as follows:

Final mark	Degree class
70 – 100	First
60 – 69	Second (Upper)
50 – 59	Second (Lower)
40 – 49	Third – *award to BSc only*
30 – 39	Pass – *award to BSc only*
0 – 29	Fail

In assigning degree classes, we expect the following qualities to be evident and demonstrable in students:

First Class Honours Degree –
An extensive knowledge and deep understanding of chemistry, the ability to interrelate different areas of the degree programme and to supplement the material presented in lectures with independent study. The ability to solve theoretical and practical problems which require insight and initiative.

Upper Second Honours Degree –
Good knowledge and sound understanding of chemistry and the ability to apply this knowledge to new problems; the ability to carry out laboratory work with minimal supervision and to obtain reliable and accurate results.

Lower Second Honours Degree –
A satisfactory breadth of knowledge of chemistry, and some ability to apply this knowledge to solve familiar problems with several steps of analysis; the ability to tackle laboratory problems with confidence given some supervision.

Third Class Honours Degree –
Knowledge of basic chemistry and the ability to solve straightforward problems; the ability to work competently in the laboratory given fairly extensive supervision.

Pass Degree –
A satisfactory work and attendance record, knowledge of basic chemistry, and competence in the safe handling of chemicals and in the use of equipment.

1.12 Examinations

1.12.1 Examination Timetables

Information such as instructions for entering University Examinations, regulations regarding the use of calculators etc., is displayed as and when appropriate on the Examination notice board in the concourse of the School.

It is important that you inform the Education Office of any inaccuracies in units you are registered to take so that we can keep your registration for University examinations up-to-date. **Failure to do so may result in you being unable to attend at an examination for a particular unit and you may fail your year as a result**. It is your responsibility to ensure your records are accurate and kept updated.

A personalized copy of your examination timetable can be obtained via the University internet – Student Services Centre Portal. It is **YOUR** responsibility to obtain a personalised examination timetable and to check that there are no timetable clashes between any of your examinations and to make sure that you know where and when a particular examination will take place.

Mis-reading the timetable will not be accepted as an excuse for missing an examination and a zero mark will be entered.

1.12.2 Disclosure of Marks

You can obtain your January examinations results via the Student System. Results of May/June examinations will be posted to your home address during the Summer Vacation. Please note that staff are not allowed to reveal results to anyone over the phone.

Official transcripts bearing the University seal are available through the Student Services Centre, a small fee will be charged for this service. A transcript is normally only necessary if requested by a future employer or university.

1.12.3 Anonymity

The marking of all examination scripts is carried out anonymously. Double marking of examination scripts is implemented for all examinations.

Any discussion regarding students at Examination Boards conferring final degrees is carried out anonymously.

1.12.4 External Examiners

Three External Examiners are appointed, each for a period of three years. They are selected from experienced academic chemists in other universities, to cover the main branches (Inorganic, Organic, Physical) of the subject. They play an important role in maintaining and moderating standards.

All examination papers are moderated by the External Examiners. In this context, the External Examiners' role is to ensure fairness and uniformity of examinations throughout the UK.

External Examiners have access to all examination scripts, coursework and project reports. In this context their role is to ensure uniformity of standards and fairness in the marking of examinations.

1.12.5 Interviews with External Examiners

A cross section of graduating students will be invited in advance to meet the external examiners for an informal discussion. The purpose of this discussion is to enable students to inform the external examiners about any aspect of their experiences of the degree programmes. This feedback may be very valuable when future changes to the programmes are being considered.

1.12.6 Special Circumstances Committee

The School's Special Circumstances Committee considers all mitigating circumstances based on written evidence. The Committee meets before the Board of Examiners and will make recommendations on appropriate compensation. Students should ensure that they submit a written statement of any circumstances affecting their academic performance accompanied by a certification of ill health or medical note or other documentary evidence in support of the submission to the Education Office, you should book an appointment with an Education Administrator to discuss this. This should be done, at the latest, by the Monday immediately following the relevant end-of-semester examination period in January or June.

1.13 Resit Arrangements

If you do not achieve the minimum standards required in year 1 or year 2 of your programme of studies, you are required to take resit examinations in those units that were failed at the next available opportunity, which is normally in August. You will be charged a Re-examination Fee for resitting examinations, unless failure was due to illness, backed up by appropriate certification, at the time of the examination.

Resits are not an automatic right. Examination Boards have the right to refuse an individual a resit opportunity if there is documented evidence that work and/or attendance has been unsatisfactory, and if the student has received a formal warning and subsequently not shown significant improvement.

1.14 Special Circumstances Affecting Academic Performance

Special Circumstances are **unforeseen** or **unexpected** personal or medical circumstances which might adversely affect your performance and/or prevent you from completing an assessment.

You should only present a case to the Special Circumstances Committee if you consider it **serious enough**, and the **timing critical**, to have affected your performance in your assessed work and examinations.

The examinations timetable may result in the bunching of your examinations, or your coursework submission deadlines may fall around the same time. This is part of the assessment process and not a special circumstance.

Having to undertake paid employment should not be presented as a special circumstance.

Stress and anxiety for which you are not receiving medical treatment and long term medical conditions do not usually constitute mitigation.

Other circumstances that would not normally merit consideration include: holidays or other events that were planned or could reasonably have been expected; misreading the timetable for examinations or otherwise misunderstanding the requirements for assessment; inadequate planning or time management; failure, loss or theft of a computer or other equipment, including inability to print off work for whatever reason.

If you suffer from anxiety during examination periods, we would advise you to attend the University Counselling Service's sessions on coping better with academic pressures. Telephone them on 275 2864 or internally on 52864, or visit their website at: http://www.campus.manchester.ac.uk/counselling/

If you have a long term medical condition that you believe has an adverse effect on your performance you should speak to the Disability Support Office as soon as possible. Telephone them on 275 7512 or internally on 57512, or visit their website at: http://www.campus.manchester.ac.uk/disability/

If for any reason you are unable to attend or complete an examination, or feel that your performance has been adversely affected by circumstances beyond your control, **you should immediately contact your Personal Tutor/Education Office and, if appropriate, the Student Health Service.**

Failure to attend a formal assessment due to illness must be corroborated with a medical certificate. If you have any other circumstances which you think have had an adverse effect on your examination performance, you must inform your Personal Tutor and ensure that full documentation (medical notes and relevant correspondence) reaches the Education Office in time to be taken into consideration by the Board of Examiners. Note: The Special Circumstances Committee and Examination Board reserve the right to not accept post-dated medical certificates.

1.15 Procedures for Appeals

The following are extracts from the University's relevant documentation.

Grounds for Appeal:

a) There is no provision for appeal against the academic judgement of the examiners.
b) An application for an appeal may be made only on grounds alleging:
   (i) that there exists or existed circumstances affecting the student's performance of which the examiners had not been made aware when their decision was taken;
   (ii) that there were procedural irregularities in the examination process
   (iii) that there is evidence of prejudice or bias or of inadequate assessment on the part of one or more of the examiners

Review Procedure:

1. Prior to taking a final decision as to whether to request an appeal or not, a student is advised to contact his or her Personal Tutor or their Programme Director or the Director of Undergraduate Studies informally to attempt to resolve the issue at School level.

2. If the student decides to make a formal request for an appeal, an application shall be submitted in writing with supporting evidence to the Academic Registrar as soon as possible and not more than one month after the publication of the student's examination results.

3. The student shall specify the ground(s) upon which it is made and contain full particulars of the student's case. If a request for review is advanced under (b), the student shall state the reason for not making the evidence known in time for the Examiner's meeting.

4. On receipt of the application the Academic Registrar (or nominee) shall decide whether sufficient grounds for a review are established. In doing so he/she shall undertake such enquires as may seem appropriate to reach a decision.

5. If, in the opinion of the Academic Registrar, no *prima facie* case for review is made or the matter complained of did not materially affect the Examiners' decision, the Academic Registrar shall inform the student accordingly in writing normally within one month of receipt of the written application and shall give reasons for the decision. Where the decision is to reject the request for a review there shall be no further appeal within the University.

1.16 Guidance to students on plagiarism and other forms of academic malpractice

1.16.1 Introduction

1. As a student, you are expected to cooperate in the learning process throughout your programme of study by completing assignments of various kinds that are the product of your own study or research. For most students this does not present a problem, but occasionally, whether unwittingly or otherwise, a student may commit what is known as plagiarism or some other form of academic malpractice when carrying out an assignment. This may come about because students have been used to different conventions in their prior educational experience or through general ignorance of what is expected of them.

2. This guidance is designed to help you understand what we regard as academic malpractice and hence to help you to avoid committing it. You should read it carefully, because academic malpractice is regarded as a serious offence and students found to have committed it will be penalized. At the very least a mark of only 30% would be awarded for the piece of work in question, but it could be worse; you could be awarded zero (with or without loss of credits), fail the whole unit, be demoted to a lower class of degree, or be excluded from the programme.

3. Academic malpractice includes plagiarism, collusion, fabrication or falsification of results and anything else intended by those committing it to achieve credit that they do not properly deserve. In addition to the advice that follows, your School will give you advice on how to avoid academic malpractice in the context of

your discipline. It will also design assessments so as to help you avoid the temptation to commit academic malpractice. Finally, you should take note that work you submit may be screened electronically to check against other material on the web and in other submitted work.

1.16.2 Plagiarism

4. Plagiarism is presenting the ideas, work or words of other people without proper, clear and unambiguous acknowledgement. It also includes 'self-plagiarism' (which occurs where, for example, you submit work that you have presented for assessment on a previous occasion), and the submission of material from 'essay banks' (even if the authors of such material appear to be giving you permission to use it in this way). Obviously, the most blatant example of plagiarism would be to copy another student's work. Hence it is essential to make clear in your assignments the distinction between:

• the ideas and work of other people that you may have quite legitimately exploited and developed, and
• the ideas or material that you have personally contributed.

5. To assist you, here are a few important do's and don'ts:

• *Do* get lots of background information on subjects you are writing about to help you form your own view of the subject. The information could be from electronic journals, technical reports, unpublished dissertations, etc. Make a note of the source of every piece of information at the time you record it, even if it is just one sentence.

• *Don't* construct a piece of work by cutting and pasting or copying material written by other people, or by you for any other purpose, into something you are submitting as your own work. Sometimes you may need to quote someone else's exact form of words in order to analyse or criticize them, in which case the quotation must be enclosed in quotation marks to show that it is a direct quote, and it must have the source properly acknowledged at that point. Any omissions from a quotation must be indicated by an ellipsis (…) and any additions for clarity must be enclosed in square brackets, e.g. "[These] results suggest… that the hypothesis is correct." It may also be appropriate to reproduce a diagram from someone else's work, but again the source must be explicitly and fully acknowledged there. However, constructing large chunks of documents from a string of quotes, even if they are acknowledged, is another form of plagiarism.

• *Do* attribute all ideas to their original authors. Written 'ideas' are the product that authors produce. You would not appreciate it if other people passed off your ideas as their own, and that is what plagiarism rules are intended to prevent. A good rule of thumb is that each idea or statement that you write should be attributed to a source unless it is your personal idea or it is common knowledge. (If you are unsure if something is common knowledge, ask other students: if they don't know what you are talking about, then it is not common knowledge!)

6. As you can see, it is most important that you understand what is expected of you when you prepare and produce assignments and that you always observe proper academic conventions for referencing and acknowledgement, whether working by yourself or as part of a team. In practice, there are a number of acceptable styles of referencing depending, for example, on the particular discipline you are studying, so if you are not certain what is appropriate, ask your tutor or the course unit coordinator for advice! This should ensure that you do not lay yourself open to a charge of plagiarism inadvertently, or through ignorance of what is expected. It is also important to remember that you do not absolve yourself from a charge of plagiarism simply by including a reference to a source in a bibliography that you have included with your assignment; you should always be scrupulous about indicating precisely where and to what extent you have made use of such a source.

7. So far, plagiarism has been described as using the words or work of someone else (without proper attribution), but it could also include a close paraphrase of their words, or a minimally adapted version of a computer program, a diagram, a graph, an illustration, etc taken from a variety of sources without proper acknowledgement. These could be lectures, printed material, the Internet or other electronic/AV sources.

8. Remember: no matter what pressure you may be under to complete an assignment, you should never succumb to the temptation to take a 'short cut' and use someone else's material inappropriately. No amount of mitigating circumstances will get you off the hook, and if you persuade other students to let you copy their work, they risk being disciplined as well (see below).

1.16.3 Collusion

9. Collusion is any agreement to hide someone else's individual input to collaborative work with the intention of securing a mark higher than either you or another student might deserve. Where proved, it will be subject to penalties similar to those for plagiarism. Similarly, it is also collusion to allow someone to copy your work when you know that they intend to submit it as though it were their own and that will lay both you and the other student open to a charge of academic malpractice.

10. On the other hand, collaboration is a perfectly legitimate academic activity in which students are required to work in groups as part of their programme of research or in the preparation of projects and similar assignments. If you are asked to carry out such group work and to collaborate in specified activities, it will always be made clear how your individual input to the joint work is to be assessed and graded. Sometimes, for example, all members of a team may receive the same mark for a joint piece of work, whereas on other occasions team members will receive individual marks that reflect their individual input. If

it is not clear on what basis your work is to be assessed, to avoid any risk of unwitting collusion you should always ask for clarification before submitting any assignment.

1.16.4 Fabrication or falsification of results

11. For many students, a major part of their studies involves laboratory or other forms of practical work, and they often find themselves undertaking such activity without close academic supervision. If you are in this situation, you are expected to behave in a responsible manner, as in other aspects of your academic life, and to show proper integrity in the reporting of results or other data. Hence you should ensure that you always document clearly and fully any research programme or survey that you undertake, whether working by yourself or as part of a group. Results or data that you or your group submit must be capable of verification, so that those assessing the work can follow the processes by which you obtained them. Under no circumstances should you seek to present results or data that were not properly obtained and documented as part of your practical learning experience. Otherwise, you lay yourself open to the charge of fabrication or falsification of results.

Finally…

12. If you commit any form of academic malpractice, teaching staff will not be able to assess your individual abilities objectively or accurately. Any short-term gain you might have hoped to achieve will be cancelled out by the loss of proper feedback you might have received, and in the long run such behaviour is likely to damage your overall intellectual development, to say nothing of your self-esteem. You are the one who loses.

1.17 Penalties for Late Submission

Unless specified to the contrary, this policy will apply to coursework in the following course units:
CHEM10520/1 and CHEM20500 Communicating Chemistry
CHEM21811 Forensic Science
CHEM20802 Law Seminar Programme
CHEM30600 BSc Projects and Labs
CHEM30650 MChem Group Projects
CHEM40610 Patent Law Project
CHEM41600 MChem Year 4 Project Report

Students should take note of the deadline set for the submission of a report, essay or other course work and are responsible for contacting the appropriate member of staff if they are uncertain about the deadline.

The penalty for late submission is as follows.
Work handed in late will be marked normally and the mark then **reduced by 10% of the awarded mark for each working day or part of day late.** Thus,for example, if the deadline for a piece of work is a Monday and it is submitted on the following Wednesday it will be marked normally on receipt. If the mark initially awarded was 60%, this mark will be reduced by 10% of the mark for each day late i.e. 2 working days late @ 6% per day means the recorded mark would be 48%. Marks will not be reduced below 40% if submitted within one week of the deadline. **Any work handed in later than one week after the published deadline will automatically receive zero.**

If you believe you have a legitimate reason for handing in work late (e.g. illness) you must apply for an extension. Any applications must normally be made **before the published deadline** and you will be expected to supply some supporting documentation (e.g. doctor's note). Computing problems are not normally accepted as an excuse for late submission.

The only person who can give permission for late submission will be the course unit convenor. A special circumstances form B – late submission of work – must be completed and submitted to the Education Office.

1.18 Teaching and Assessment During Placement/Year Abroad

If you are on programmes such as "with Industrial Experience", "with Study in Europe", "with Study in North America", you will spend the third year of your studies in industry or abroad. At the end of your second year, you will be given a Placement Handbook, which gives you detailed information about your placement year. This will include information on assessment of any distance learning units you are required to take.

1.19 Prizes and Awards

The following prizes and scholarships are available to students studying Chemistry or Chemistry "with" programmes. Please note that it is not always possible to award all prizes in each academic year. There are also other general awards, bursaries and scholarships available to students of the University of Manchester. Please make enquires with the Student Services Centre.

For Third and Fourth Year Students

Colin Campbell Memorial Prize
- for the most improved chemist between first and third years (BSc/MChem)

Eric Braithwaite Prize
- the best inorganic chemist in third year (BSc/MChem)

Glaxo Prize
- for the best organic chemist in fourth year (MChem)

Haneef Prize
- for the best structural chemist (BSc/MChem)

Iain Jones Memorial Prize
- for the most improved chemist between second and third years (BSc/MChem)

ICI Chemical and Polymers Prize
- for the best physical chemist in third year (BSc/MChem)

John Salthouse Prize
- for the best inorganic chemist in fourth year (MChem)

Mercer Scholarship
- for the best final year student entering research (BSc/MChem)

Pfizer Prize
- for the best physical chemist in fourth year (MChem).

Roger Grice Memorial Prize
- for the best chemist in fourth year (MChem).

Royal Society of Chemistry Prize
- the most meritorious student graduating BSc in Chemistry (BSc/MChem)

Sigma-Aldrich Prize
- for the best organic chemistry project in fourth year (MChem)

Society of Chemical Industry Prize
- for the best industrial experience student (MChem)

Swan Brewery Prize
- for the best organic chemist in third year (BSc/MChem)

Vin Robinson Prize
- for the best student in Radiochemistry (BSc/MChem)

Peakdale Chemicals Prize
- For the best final year MChem project

For Second Year Students

Departmental Prize
- for the best chemist in second year.

R F Warren Memorial Prize
- for the best physical chemist in second year.

Sutherland Prize
- for the best organic chemist in second year.

Peakdale Chemicals Prize
- For the best practical chemist in second year (BSc/MChem)

Zeneca Inorganic Chemistry Prize
- for the best inorganic chemist in second year.

For First Year Students

Alan Thompson Prize
- for the best inorganic chemist in first year.

A F Edwards Memorial Prize
- for the best practical chemist in first year.

Shell Research Prize
- for the best physical chemist in first year.

Woodiwis Scholarship
- for the best chemist in first year.

AstraZeneca Organic Chemistry Prize
-for the best organic chemist in first year.

Credits, Awards and Student Progression

1.20 Credit and Undergraduate Awards.

The Credit and Undergraduate Awards Regulations are reproduced in part below. They are particularly important as they provide the framework which determines progression and successful completion of a programme of study. ***The full text is available on the University website.*** The Regulation permits the Faculty to exercise discretion in a number of matters. Text that appears in a box with a single line border states the practice which has been approved by the Faculty for the programmes of study within the School of Chemistry. Annex B provides some additional guidance in respect of seeking permission of the Faculty to interrupt and extend a period of study.

1.21 Credit and Undergraduate Awards

Except where specified, these regulations apply only to full-time programmes.

1.21.1 Credit framework

1. Credit is a means of structuring units and programmes of study according to the volume of student work required. One credit corresponds to ten notional hours of student workload.
2. Level is a means of describing the intellectual demands of units and programmes of study. Units shall be assigned a level as follows: 0 corresponding to the typical demands of a foundation year; 1, 2, or 3 corresponding to the typical demands of successive years of a bachelor's degree programme; or 4 corresponding to the typical demands of a master's degree programme.
3. The standard undergraduate academic year shall comprise 120 credits for programmes with honours, and 100 credits for ordinary programmes. The credits shall normally be divided equally between the semesters.

All year of study are 'standard years' and require the successful completion of 120 credits, with the exception of the MChem(Hons) Chemistry with Patent Law, in which the second year requires 130 credits and the third year 110 credits.

4. In undergraduate programmes, unless Senate permits otherwise, the units shall be 10 credits or integral multiples thereof, except for units at level 4, which shall be 10 or 15 credits or integral multiples thereof.

Within the School of Chemistry all course units are multiples of 10 credits

1.21.2 Award framework

5. Award of the Certificate of Higher Education requires 120 credits, with at least 100 credits at level 1 or above.
6. Award of the Diploma of Higher Education requires 240 credits, with at least 100 credits at level 2 or above.
7. Award of the ordinary degree of Bachelor for a programme of standard length (three years full-time study or its part-time equivalent) requires 300 credits, with at least 60 credits at level 3 or above.
8. Award of the degree of Bachelor with honours for a programme of standard length (three years full-time study or its part-time equivalent) requires 360 credits, with at least 100 credits at level 3 or above.

The following programmes include a year in industry or a year in a University abroad and are of four years duration and require successful completion of 480 credits:
BSc(Hons) Chemistry with Industrial Experience
BSc(Hons) Chemistry with Forensic Science (placement route)
BSc(Hons) Chemistry with Forensic and Analytical Chemistry (placement route)
BSc(Hons) Chemistry with Study in North America (exit award after 4 years only)
BSc(Hons) Chemistry with Study in Europe (exit award after 4 years only)

9. Award of the integrated degree of Master for a programme of standard length (four years full-time study or its part-time equivalent) requires 480 credits, with at least 120 credits at level 4.

10. For longer programmes, the total credit requirements for each award are increased pro rata to the length.

Entry through the foundation year extends the total programme of study by one year and the total credit requirements by 120.

1.21.3 Titles of Awards

11. Not reproduced here.

1.21.4 Minimum study period

12. The award of the degree of Bachelor or the integrated degree of Master for a student admitted to a programme with advanced standing in respect of learning completed prior to entry (see Paragraph 19) requires completion of at least the final year of full-time study (or its part-time equivalent) at the University of Manchester.

In every case the award of a qualification requires the final year of study to be taken within the Faculty of Engineering and Physical Sciences of the University of Manchester.

1.21.5 Maximum study period

13. Full-time study shall proceed without interruption except with permission. The full-time programme for the award of a degree shall normally be completed within two academic years of the intended completion following first registration for the programme.

a. Interruption and any consequential extension to the period of study shall require the permission of the Director of Teaching.
b. If permission is given for a period of study to be extended or for transfer to a different programme the regulations subsequently applied shall be those pertaining to the student cohort now joined whether more or less favourable.
c. If permission is given for a period of study to be repeated the programme or the programme of study may have changed from that which has been or would have been studied and re-examination will relate to the current programme.

1.21.6 Assessment

14. A student successfully completes a unit by demonstrating achievement of specified intended learning outcomes. For numerical assessment, marks are determined by the extent to which the student achieves the intended learning outcomes, such that in principle the full range from 0 to 100% is available. Where there is numerical assessment, the normal pass mark shall be 40%. Where there is no numerical assessment the unit shall be graded pass or fail.

15. The Board of Examiners may determine from evidence available to it that a student who has been prevented by good cause from completing the assessment for a unit shall be awarded the percentage mark if at least half the assessment has been completed or a pass if less than half the assessment has been completed.

16. For the purposes of determining progression, the percentage mark that represents a compensatable fail shall be not less than 30%. Where a unit is graded pass or fail there is no compensatable fail mark.

1.21.7 Accreditation of Prior Learning

17 to 20. Not reproduced here.

1.21.8 Progression

21. The overall mark for a given year of a programme shall be calculated as an average of the numerical marks awarded for each unit in that year weighted by the credits for that unit, with suitable provision for marks from any assessments that relate to more than one unit or to study outside the standard programme. Units graded pass or fail are excluded from the calculation.

22. The minimum overall pass mark shall be 40% to progress from one year of a programme for the degree of Bachelor to the next and to progress to Years 2 and 3 of a programme for the integrated degree of Master. The minimum overall pass mark shall be 50% to progress to Year 4 of a programme for the integrated degree of Master.

a) the minimum mark for progression to year 2 and 3 of the integrated masters programme shall be:

For MChem(Hons) Chemistry with Industrial Experience	50%
For MChem(Hons) Chemistry with Forensic Science	50%

For MChem(Hons) Chemistry with Forensic and Analytical Chemistry	50%
For MChem(Hons) Chemistry with Patent Law	55%
For MChem(Hons) Chemistry with Study in North America	60%
For MChem(Hons) Chemistry with Study in Europe	60%

b) for all other programmes the minimum mark for progression to year 2 will be 40% and to year 3 50%

c) for all programmes the minimum mark for progression to year 4 is 55%

23. To progress from one year of a programme to the next, a student must
- reach the minimum pass mark overall;
- reach the pass mark in individual units totalling at least two thirds of the credits for that year;
- reach the compensatable fail mark in all remaining units.

Faculties may allow Schools on discipline-specific grounds to adopt more stringent standards, including (but not restricted to):
- limiting the number of credits for which a compensatable fail mark will be available in each of the separate components of a joint degree programme;
- specifying core units for which no compensatable fail mark will be available;
- increasing the proportion of the total credit that must reach the pass mark (ultimately to the total credits available, thus allowing no compensatable fails);
- setting a compensatable fail mark greater than 30% as allowed under Paragraph 16;
- setting a higher pass mark overall.

a) For Chemistry with Patent Law, LAWS course units cannot be compensated.
For Chemistry with Forensic and Analytical Chemistry, non-Chemistry course units cannot be compensated.
For Medicinal Chemistry, PHAR course units cannot be compensated below 33%

b) Progression on a programme which includes a period in a country speaking a foreign language requires reasonable progress to be made in the study of the foreign language.

c) 1st year Core Chemistry Course Units and 2nd Year Practical Chemistry (CHEM22600) cannot be compensated below 40%.

24. A student who fails to progress to a subsequent year of a programme for the degree of Bachelor, or to a subsequent year other than the final year of a programme for the integrated degree of Master, shall be reassessed in all units for which the unit pass mark was not attained. Such reassessment must assess achievement of the same intended learning outcomes but need not be of the same form as that originally used, and shall normally take place in time for the student to progress at the time originally intended. In order to progress, a student shall be required to pass each unit reassessed, and shall then be deemed to have obtained the necessary credits, but the marks originally obtained shall stand for the purpose of calculating the overall mark for the year. Compensation is not normally available, but Faculties may for good cause allow Schools to adopt a scheme of compensation that is not more generous than they use under Paragraph 23.

a) Compensation shall be available on reassessment and shall be applied in the same manner as on first assessment.

b) Reassessment is not possible in a laboratory based coursework unit and failure in such a unit will normally require the unit to be retaken in the next academic year without progression and the programme of study to be extended by one year.

c) Reassessment is not normally possible in any study taken in industry or at an institution abroad and subsequent progression will require transfer to an alternative programme of study.

d) Examinations at levels 3 or 4 are set once only in any academic session and failure to take such examination at the single opportunity available will normally require the programme of study to be extended by one year or graduation delayed until the examination is taken at the next opportunity.

25. Not reproduced here.

26. A student who fails to progress to the final year of a programme for the integrated degree of Master shall not be reassessed but instead shall be considered forthwith for the award of the degree of Bachelor.

27. A student who fails after reassessment (and application of compensation allowed as in Paragraph 24) to progress to a subsequent year of a programme for an Honours degree but has passed units totalling at least 100 credits (after compensation where allowed) shall progress to the subsequent year of the programme for the ordinary degree of Bachelor, except as allowed under Paragraph 28.

28. A student who fails to progress to a subsequent year of a programme having failed after reassessment to reach the unit pass mark (or the compensatable mark where compensation is allowed) in units totalling no more than 20 credits may be allowed by the Board of Examiners to progress to the next

year taking additional units of the same credit value and at the same level as the failed credits, in addition to the full set of units for that year. To complete that year successfully, the student must satisfy the usual criteria for the year and reach the unit pass mark for the additional credits at the first attempt. A student who satisfies the criteria for the year but fails to pass the additional credits shall be treated as having completed successfully that year of the programme for the ordinary degree of Bachelor.

Students will not normally be permitted to progress to year 2 or year 3 of the honours programme if they have failed to achieve 120 credits in the preceding year.

29. A student who fails to progress to Year 2 of a programme after reassessment may be allowed by the Board of Examiners to re-start Year 1 of that or a cognate programme.

Re-start of the programme of study shall require permission of the School Examination Board

30. To progress to a subsequent year of a programme for the ordinary degree of Bachelor, a student must:

- reach the pass mark overall in units totalling 100 credits;
- reach the pass mark in individual units totalling at least 60 credits;
- reach the compensatable fail mark in all remaining units.

1.21.9 Mitigation

31. The Board of Examiners, or other body constituted for this purpose, may determine from evidence of good cause shown before an assessment period (or exceptionally after the assessment period if the cause was not then known to the student or could not then have been shown by the student) that a student's performance was likely to have been impaired. It may then judge that without the impairment the student would have reached higher marks sufficient to demonstrate the necessary learning outcomes and thereby satisfy the requirements for progression under the criteria in Paragraphs 21 to 30 or for a given degree classification under the criteria in Paragraphs 32 to 37. It shall not adjust the mark of the student in individual units or overall, but shall treat the unadjusted marks separately in any subsequent computations.

1.21.10 Classification

32. The degree of Bachelor with honours shall normally be awarded in classes 1, 2i, 2ii and 3. The integrated degree of Master shall be normally awarded in classes 1, 2i and 2ii, unless approval by a professional, statutory or regulatory body requires the use of class 3. The Ordinary degree of Bachelor shall not be awarded in any classes or divisions.

No programmes within the School of Chemistry award an integrated degree of Master in the third class

33. The Board of Examiners may determine from evidence available to it that a candidate for an honours degree who has been prevented by good cause from completing the final examination or assessment shall be awarded a class of degree the Board judges to be suitable, or unclassified honours if the Board judges that no class can be determined.

34. A candidate for any award who fails to satisfy the requirements for the intended award but satisfies those for a lower award shall be eligible for the lower award. The programme title of the lower award will normally be the same as that of the intended award, but an appropriate alternative programme title shall be used:

- when the student has not satisfied the credit requirements for one of two subjects studied in combination;
- when at least part of the title of the degree is associated with a right to practise;
- for other good cause.

The Certificate of Higher Education or Diploma of Higher Education may be awarded without a programme title.

The ordinary degree shall only be awarded with the title of Chemistry

35. The overall mark for a programme is a weighted average of the overall marks for different years of the programme. For the different classes the overall mark ranges shall be

- for class 1, not less than 70.0%;
- for class 2i, less than 70.0% but not less than 60.0%;
- for class 2ii, less than 60.0% but not less than 50.0%;
- for class 3, less than 50.0% but not less than 40.0%.

For the different classes boundary zones shall be

- for class 1, less than 70.0% but not less than 68.0%;
- for class 2i, less than 60.0% but not less than 58.0%;
- for class 2ii, less than 50.0% but not less than 48.0%;
- for class 3, less than 40.0% but not less than 38.0%.

36. A student who obtains an overall mark in the range required for class 1, 2i or 2ii and obtains at least two-thirds of the credits for the final year with a mark not less than 40.0% shall be awarded that class of degree, and a student who obtains the overall mark in the range required for class 3 and obtains at least half of the credits for the final year with a mark not less than 40.0% shall be awarded that class of degree, save that any Faculty may decide to introduce more stringent requirements. Except as provided under Paragraph 37, a student who obtains an overall mark in the range for that class but obtains less than the specified fraction of the credits for the final year with a mark not less than 40.0% shall be awarded the next class lower, or for class 3 shall be considered under the criteria in Paragraph 38.

37. A student may be considered for the next higher class of degree than determined by Paragraph 36 by one of two methods approved for each programme by the relevant Faculty.

Method A (by mark distribution)
A student who obtains an overall mark in the boundary zone for that class and obtains at least two-thirds of the credits for the final year with a mark not less than 40.0% will obtain that class if at least two thirds of the credits for the final year are in or above the range required for that class.

Method B (by mark review)
For a student who **either**

(i) obtains an overall mark in the range required for a given class but does not obtain the fraction of the credits for the final year with a mark not less than 40.0% (as specified in Paragraph 36); **or**

(ii) obtains an overall mark in the boundary zone for that class and obtains the fraction of the credits for the final year with a mark not less than 40.0% (as specified in Paragraph 36),

the relevant External Examiners will review the marks, and may conduct an oral (*viva voce*) examination of the student. On the basis of that review, the External Examiners may recommend that the student obtains that class of degree.

38. The ordinary degree of Bachelor shall be awarded to a student who at the end of the honours programme obtains an overall mark not less than 40.0% averaged over final-year units totalling 60 credits and obtains at least half of those credits with a mark not less than 40.0%.
39. The ordinary degree of Bachelor shall be awarded to a student who at the end of the ordinary programme obtains an overall mark not less than 40.0% averaged over final-year units totalling 100 credits and obtains at least half of the credits with a mark not less than 40.0%.
40. Not reproduced here

1.22 Annex B Guidelines in respect of permission of the Faculty to vary these regulations

1.22.1 Interrupt a period of study

Paragraph 13 of the Regulation makes it explicit that the expectation is that study proceeds without interruption and that there is no right to an interruption. In order to interrupt, and hence to continue on the programme at some later date, a student must obtain permission. Such permission may be sought because of medical or severe personal or family difficulties, in order to undertake a period of study at a different institution or in order to gain industrial experience. Application for such permission should be made on the appropriate form available on the School website and must be approved by the Director of Teaching.

1.22.2 Repeat a period of study

Permission to repeat a period of study is given only in exceptional circumstances and requires permission of the Director of Teaching when:
an associated interruption is sought under paragraph 13,
all allowable attempts have been taken under paragraph 24.

1.22.3 Studying in a different institution (not as part of a previously approved programme)

A student may be permitted to satisfy the credit accumulation and assessment requirements for not more than 120 credits of the programme concerned, other than in the final year, by satisfying appropriate requirements in another University or institution approved for the purpose by Senate and on a programme of study approved by the Faculty.
A candidate wishing to satisfy requirements in this way, not as a prescribed part of a programme, must:

i. apply for permission in advance of any proposed period of attendance elsewhere;
ii. satisfy the School that the number and level of credits awarded will be equivalent to that which would have been studied had the period been spent at the University of Manchester;
iii. before proceeding to the next stage of the programme present appropriate evidence of having satisfied all assessment requirements in respect of which permission has been given.

At the time of the application the programme director shall inform the candidate of the requirements for assessment and the consequences for classification of the subsequent University of Manchester degree.

1.22.4 Gaining relevant experience in employment institution (not as part of a previously approved programme)

A student may be permitted to interrupt a programme of study to gain experience in industry. Such period will usually be of one academic year's duration. An appointment letter from the company concerned should usually be attached to the application.

1.22.5 Transfer between programmes

The Faculty permits students to transfer between cognate programmes that share a common core when all of the following are satisfied:
on advice and with the consent of the programme director,
where there is no repeat of study required,
where optional units already taken and passed meet any prerequisite requirements of the programme to be joined,
where progression requirements of the programme to be joined have been satisfied.
When these conditions have been met permission of the Faculty is not needed.

1.23 Work and Attendance Requirements at Laboratories

To ensure good attendance, and to comply with the University of Manchester policy on work and attendance, the School of Chemistry has instituted the following procedure:

1. Attendance at laboratory classes is a compulsory requirement for Chemistry degree programmes. We expect students to achieve 100% attendance. If you need to be absent for any reason you must inform the laboratory course organiser or the Education Office – preferably in advance. **All students must complete an absence form within 5 days of their return to University.** Medical certificates (lodged with the Education Office) will be accepted as a legitimate reason for lack of attendance.

2. If the attendance of any student falls below 75% during any laboratory course, the student will receive an informal warning from the School concerning their poor attendance. At that stage the student may raise any mitigating circumstances. The informal warning will include an attendance target that must be met by the student to prevent any further action being taken.

3. If the attendance of a student that has been informally warned continues to be unsatisfactory, then an "early warning" letter will be sent, in accord with University regulations on satisfactory work and attendance. This letter will specify that attendance must improve to a specified (and achievable) level by a specified date. The letter will be sent to the student's registered home and study-time addresses, and via e-mail.

4. If the student's attendance does not improve by the specified date in the "early warning" letter, they will be refused a Certificate of Satisfactory Work and Attendance, in accord with University regulations on satisfactory work and attendance. This will remove their permission to sit examinations, which could be end-of-first semester examinations but is more likely to be end-of-second semester examinations. Poor attendance in first semester will be considered grounds for refusing permission for students to attend end-of-second semester examinations. ***The likely result of this refusal of a Certificate of Satisfactory Work and Attendance will be exclusion from the University.*** It is also possible that such a refusal may be grounds for education authorities requesting the student to repay any fees or grant paid to the University of Manchester on the student's behalf.

Notification of the refusal of the Certificate will be sent immediately to the student's registered home and study-time addresses. The student has a right to appeal against this decision.

5. To ensure students are treated fairly, it is vital that attendance registers are accurate. Therefore if you attend a laboratory class, make sure you have been marked as present. It is understood that in some sections of the discipline, e.g. physical chemistry, it is possible that students will complete laboratory measurements in less than the time allotted, and that they will spend time outside the laboratory analysing results and completing experimental write-ups. In such circumstances students will be deemed to have attended during the later sessions of a week, if an experiment has been finished early and ***has been signed off by the staff demonstrator***. However, students should be aware that attending for a short period, signing the attendance register and then leaving will be noted, and such behaviour will be considered unsatisfactory.

1.24 Absence during the Semester

You are not permitted to absent yourself during the semester, except in special circumstances, when you should apply for permission to the Director of Undergraduate Studies. If you are unable to return after vacation, you should explain the circumstances in writing and in advance.

1.25 Change of Course Unit

The procedure for changing course unit is:

- check with the tutor of the course unit you are leaving and the tutor of the course unit you intend to join that a change is possible
- check that you have studied the pre-requisites (if any exist)
- check that your timetable will allow you to take the course unit that you are changing to
- change the course unit online via your self-service account (assistance is available from the Education Office)
- carefully check your examination timetable to ensure that you have been entered for the correct exams.

<u>If you choose to leave a course, it is essential that you attend an alternative unit, otherwise you may not obtain sufficient credits for progression</u>.

You may not be able to change course unit after the first TWO weeks of the semester, and you cannot change course unit if the course unit you wish to drop is a core unit.

1.26 Withdrawal

If you are considering withdrawing from the programme, **speak to your Personal Tutor immediately.** Your Tutor will be able to offer advice on how to proceed. You must also make an appointment to speak with the Director of the Undergraduate Studies. <u>No change or withdrawal will be permitted unless you have spoken to the Director of Undergraduate Studies</u>.

If, for whatever reason, you have firmly decided to withdraw from the programme, inform your Tutor and the Education Office in writing as soon as possible. <u>Notification via telephone will not be accepted</u>.

It is obviously important that you keep the School fully informed of your intentions or actions and the University is obliged to inform Student Finance of your decision.

Student Support and Guidance

1.27 Personal Tutor System

All members of staff in the School are available to help you, however you are assigned a Personal Tutor who should, in most instances, be your first point of contact if you have anything you wish to discuss. This should include any personal and academic concerns you may have.

Your Personal Tutor has the responsibility of monitoring your progress through your programme of studies, for marking year one skills course assignments and for unofficial disclosure of exam marks. Normally your Personal Tutor will also act as your academic subject tutor in one area of Chemistry.

It is important that you see your Personal Tutor regularly. Personal Tutors are usually called upon to provide references to prospective employers on your behalf. The better your Tutor knows you, the easier it will be to write an effective reference.

If you wish to consult someone other than your Personal Tutor, you may see the Director of Undergraduate Studies.

1.28 Academic Subject Tutors and Tutorials

Tutors are assigned at the beginning of the first year of your studies. Each student has three academic tutors. One of these is also your Personal Tutor for each branch of Chemistry (Inorganic, Organic and Physical).

Your Tutors will work with you, usually in a small group, to discuss and develop the material you meet in lectures and laboratory courses. Attendance at tutorials is compulsory.

1.29 Peer-Assisted Study Sessions (PASS)

PASS is a student mentoring programme. Third and fourth year students volunteer to act as academic mentors (PASS leaders) to help and support first year students in their academic studies each week.

Tutorial worksheets are given out weekly to support the lectures being given. PASS sessions take place every Tuesday and focus on the week's worksheet.

1.30 Personal and Academic Development Plan (PADP)

A PADP is a means by which you can monitor, build and reflect on your personal development. It is intended to help you become a more effective, independent and confident self-directed learner. It should also improve your general skills for study and career management and enable you to articulate your personal goals. The use of the PADP is a structured process that you carry out with support and guidance from your Personal Tutor. This involves self-reflection and the use of personal records to plan and monitor progress towards the achievement of personal activities.

There is a schedule of meetings between you and your Personal Tutor. This must be completed and signed at each meeting. The use of the personal forms is optional. Some students find it useful to follow the structure provided by the forms, others prefer a more informal discussion with their Personal Tutors. It is up to you how the meetings with your Personal Tutor proceed.

The Royal Society of Chemistry has designed a detailed record keeping scheme and guidelines on points for development deemed suitable for Chemistry students. The use of these forms is optional and the responsibility of individual students. If you would like to use these forms, the Education Office has some copies. Alternatively the forms can be downloaded from
http://www.rsc.org/Education/HEstudents/usr/index.asp

1.31 Ill Health

It is a requirement of your registration with the University of Manchester that you register with a local general practitioner. A list of GP practices can be obtained from the Student Health Centre, any University Hall of Residence or a local Pharmacy. According to guidance issued by the General Medical Council it would not be regarded as good practice for a family member to be the registered GP or to offer treatment except in the case of an emergency.

You should always consult your GP (or for emergencies the Accident and Emergency Department of a hospital) if your illness is severe, if it persists of if you are in any doubt about your health. You should also consult your GP if illness keeps you absent from the University for more than 7 days including weekends. If you do consult a GP and they consider that you are not fit to attend the University, then you should obtain a note from the doctor to that effect or ask them to complete Part III of the University form 'Certificate of

Student Ill Health', copies of which are available at local GP surgeries. You should hand this certificate to the Education Office at the earliest opportunity. **Retrospective medical notes may not be accepted.**

If your condition is not sufficiently serious to cause you to seek medical help, then the University will not require you to supply a doctor's medical certificate. However you must contact your Personal Tutor or the Education Office and complete a 'Certificate of Student Ill Health' form to explain your absences as soon as you are able to attend the University.

The following bullet points explain what you should do if your illness affects your attendance at compulsory classes or if you consider that your performance in your studies/examinations has been impaired:

- if you are unwell and feel unable to attend a compulsory class, assessment or examination, then you must seek advice by contacting the School immediately, in person, through a friend or family member, by telephone or by email. This is to ensure that you understand the implications of being absent and the consequences for your academic progress, which might be quite serious.

- you may be unwell but are able to proceed with an assessment or examination and yet you feel that your performance will have been impaired. If you wish this to be taken into account as an extenuating circumstance, you must inform your Personal Tutor about this on the day of the assessment or examination and hand in to the Education Office a completed 'Certificate of Student Ill Health' form which must be countersigned by a tutor or medical practitioner.

- you may be under occasional and ongoing medical attention which affects your studies. If so, you should obtain a letter from your physician which should be given to your Personal Tutor before the end of January, May/June or August/September examination period, as appropriate, if you wish your condition to be taken into account as an extenuating circumstance.

Notes:

1. Certificate of Student Ill Health forms are available in all schools and Halls of Residence.

2. Your Personal Tutor will give you guidance on the effect of any absence from your studies. If you have repeated episodes of ill health which affect your studies, the School may refer you to the Student Health Centre.

1.32 University Support Services

More details of the University's Support Services may be accessed through the Student Experience Office at: http://www.campus.manchester.ac.uk/studentexperience/

Accommodation

If you are in University accommodation or wish to enquire about renting a place in halls:

Accommodation Office
http://www.accommodation.manchester.ac.uk/
Tel: 0161 275 2888 Email: accommodation@manchester.ac.uk

For information about private Halls of Residence or room, flat or house rentals:

Manchester Student Homes
http://www.manchesterstudenthomes.com/
Tel: 0161 275 7680 Email: info@msh.manchester.ac.uk

Student Guidance Service
The Student Guidance Service is a student-centred service open to all Undergraduates and Postgraduates, from all Schools across the whole University. For general enquiries and to make an appointment to see an adviser, you can either phone or call into Reception - Student Advice and Information Hub, 1st Floor, University Place Tel: 0161 275 3033. For general enquiries (not to make appointments) you can also email the Service at sgs@manchester.ac.uk. Reception is open throughout the year (reduced hours during vacations): Monday - Thursday 10:00am - 4:00pm and Friday 10:00 am – 1:30 pm.

Childcare
The University has two nurseries on campus. There are long waiting lists. More information about childcare facilities within Manchester can be found at:
http://www.campus.manchester.ac.uk/studentexperience/childcare/index.htm

Counselling Service
The Counselling Service is available for all University of Manchester students (undergraduate, postgraduate or research students) and all members of staff. It is free of charge and consists of a team of professional counsellors with extensive experience of helping people cope better with all kinds of personal problems affecting their work or well-being.
Mostly people find it helpful to see a counsellor for only a few sessions and sometimes just one or two meetings are enough. We mainly offer brief, focused time-limited counselling that encourages you to make the most of each session and actively use the time in between sessions to help you achieve your aims.
As well as individual counselling we offer a range of groups and workshops in which you can learn new personal skills or better ways of coping with particular issues.
The service is open 9.00 am to 5.00 p.m. Monday to Friday all year round except public holidays.
counsel.service@manchester.ac.uk

Other people who can help include:

The Samaritans 08457 909090
CALM (Campaign Against Living Miserably) 0800 585858
Nightline 0161 275 2983/4.
NHS Direct 0845 46 47 http://www.nhsdirect.nhs.uk
MRI A&E department 0161 276 4147 - when there is serious risk of harm to self or others

Careers
The University Careers Service can help you to find part time employment, vacation placements and when you enter your final year prepare your CV and applications for full time work and to research job opportunities. In addition the Service runs several job fairs across Manchester throughout the year. The service runs specially designed on-line noticeboards for different subject areas within the School, and The Careers Service website can be found at: http://www.careers.manchester.ac.uk/.

Disability Support
The University has a Disability Support Office (DSO), whose aim is to assist students, both prospective and current, to identify their needs whilst studying at the University.
The DSO has a website: http://www.campus.manchester.ac.uk/disability/. In addition, the School has a Disability Support Officer, Karen Charters, who co-ordinates support arrangements for all undergraduate students. Karen is available to discuss support needs with individual students. Her contact details are: telephone: 0161 306 4417; email: karen.charters@manchester.ac.uk.

International Students
The **International Students Advice Team** are part of the Student Services Centre and are available to assist with all areas of your study at Manchester. They can be contacted through the SSC. An outline of the services offered can be found at http://www.campus.manchester.ac.uk/ssc/internationalteam/

The **International Society** is a busy centre for international students based in the Greater Manchester area. It is located on Oxford Road (see map of campus). Manchester has more students from abroad than anywhere else in Britain, other than London, and International Society members come from all over the world. In fact, there were students from more than 130 different countries last year - so it's a good place to make friends and contacts during your stay here. The International Society has a website which can be found at:
http://www.internationalsociety.org.uk.

Students who require assistance with **English Language** should consult the University's Language Centre http://www.langcent.manchester.ac.uk/academicsupport/. The Centre provides language courses which cover areas such as academic writing, public speaking, pronunciation and grammar as well as an academic writing tutorial service.

Mature Students
The Burlington Society is the University society for mature and postgraduate students. They have their own facilities in the Burlington Rooms, next to the John Rylands University Library. Facilities include a bar, common room (quiet, non-smoking, with free tea and coffee facilities for members), and a vegetarian cafe. The Society organises events and activities on Thursday and Friday evenings during term time. In addition there are smaller groups for theatre and film visits, music, football, squash and others. The Plus 21 Group is

an informal network of mature students across the University, which meets once a week at lunchtime in the Burlington Rooms, as well as holding occasional evening events. New members are welcome - contact the Mature Students Adviser (phil.eva@manchester.ac.uk) for more information. The Centre for Continuing Education offers study skills advice to mature students across the university. Students can book one or more sessions of around 50 minutes with an adviser who will not be a subject expert, but can work on issues such as essay planning and writing, reading strategies, note-taking, work-planning etc. Students can bring drafts of their work for discussion, though they do not proof-read work. Sessions are available at various times during the week during University semesters, by phoning 0161 275 3275.

Police Liaison and On Campus Security

1.33 University Police Liaison Office

The University Police Liaison Office is located on the first floor of the old wing of the Dover Street Building. PC Schofield and his colleagues run drop-in sessions every Thursday between 4pm and 6pm in term time. They can also be contacted on: 0161 275 7042.
The answerphone is checked daily. Please note that to report a theft, student must go into a police station.

The University of Manchester employs its own 24/7 security service, which consists of 90 security officers operating in uniform on 4 shifts. The security officers patrol the academic and residential campus areas on foot and in marked security vehicles to ensure the safety of students, staff and visitors. The security service monitors fire and intruder alarms and respond to all emergencies. Security officer are in trained in first aid and are always available to offer security advice and support.

In addition, the University campus areas are covered by a large number of CCTV cameras, which are monitored 24 hours.

The security service can always be contacted on 0161 306 9966

Religious Support
Details of services, facilities and all places of worship (Christian and non-Christian) adjacent to the University are available at http://www.staffnet.manchester.ac.uk/personalsupport/religion/

Student Health
Whilst studying at the University of Manchester it is essential that you register with a local General Practitioner. A list of GP practices can be obtained from the Student Health Centre, any University hall of residence or a local pharmacy.

Student Services Centre
The SSC is the University's point of contact for most of the tasks you need to carry out during your time here as a student, including registration/fees, documentation, loans and grants, exams and graduation. Burlington Street and Sackville Street sites will be open 10am to 4.00pm from Monday to Friday. Contact details are:

- Tel: 0161 275 5000 (from 10am to 4pm everyday)
- email: ssc@manchester.ac.uk (emails will be dealt with from 9 to 5, Monday to Friday).

Students Union Advice Centre
The Students Union has advisers who can help with any matter ranging from finances to housing and beyond. On the South Campus, the Advice Centre is on the first floor in the Student Union Building, and is open Monday to Friday, 9.30 am to 4.30 pm, term time and vacation. There is no need to make an appointment.

1.34 Harassment

The University of Manchester is committed to creating a working and studying environment which is free of harassment and which protects the dignity of staff and students, female and male, irrespective of their sexual orientation, racial or ethnic background, religion or disabled status. Harassment is offensive and prejudicial to a productive working and studying environment. It is indicative of a lack of respect for the person harassed, undermines his or her position and may have a negative impact on health, job performance, course work, examinations and their sense of personal security.

The University regards sexual, racial or personal harassment as an extremely serious matter. Observance of the University's policy with respect to harassment is a condition of service for all members of staff and is required of students. Formal complaints will be thoroughly investigated in such a way as to protect those who complain and those who are the subject of complaint. In cases where the complaint is substantiated the individual responsible may be subject to action under the appropriate disciplinary procedure.

Any students who have been subjected to harassment should inform their Personal Tutor, who will be able to offer help and support.

Student Representation and Feedback

1.35 Student Representation

Two student representatives from each academic year are elected at the beginning of each year to represent students at the Staff-Student Liaison Committee and the Chemistry School Board. One of the student representatives goes forward to act as our representative on the Staff-Student Committee of the Faculty of Engineering and Physical Science, and further opportunities then arise to be a student representative on University committees. We encourage student representatives to take an active role in gathering the opinions of their peers, presenting those opinions at meetings, and reporting back to students on the outcomes.

We also encourage all students to make any matters they wish to be raised at meetings known to the student representatives. There is a separate notice board for student representatives and for general notices to all students in the foyer. Information such as minutes of Staff-Student Liaison Committee meetings, requests for student feedback and so on are posted on the notice board.

1.36 School's committees

(i) **Staff-Student Liaison Committee**

This deals with both academic and non-academic matters within the School and reports back to the School Board. It consists of an equal number of staff and students, with two students from each year elected to serve on this committee. The members of academic staff who serve on this committee are the Head of School, the Chair of the Teaching Committee and the Director of Undergraduate Studies. Student members represent their year and are expected to be proactive in bringing ideas and problems to the notice of the committee. At least three meetings are held each year to facilitate communications between staff and students.

(ii) **Chemistry School Board**

The Chemistry School Board is the committee that deals with matters relating to the School as a whole and is constituted according to university regulations. It consists of all academic and academic related members of staff together with student representatives (two undergraduate students from each year and two postgraduate students) and representatives of support staff (secretaries and technicians). The School Board elects its own Chair and Secretary and advises the Head of School on all matters affecting the School. The Board meets at least once per semester.

(iii) **Teaching Committee**

The Teaching Committee is responsible to the Head of School for all aspects of undergraduate teaching. It monitors the functioning and effectiveness of undergraduate teaching and is composed of academic staff from the three teaching groups. The Committee meets at least three times per semester. Any student is entitled to refer any matter regarding undergraduate teaching to the Committee for its consideration. Students who have problems of any sort relating to any aspect of teaching within the School can raise the issue in confidence with the Director of Undergraduate Studies or the Chair of the Teaching Committee.

1.37 Student feedback

In addition to student representatives, the School and its degree programmes provide a number of both formal and informal opportunities for student feedback.

(i) **End-of-semester questionnaires**

At the end of each semester you will be asked to fill in a questionnaire and comment on the content and delivery of each course unit. A summary of the results of these questionnaires and a brief report prepared by the School's Quality Assurance and Enhancement Officer will be lodged in a file in the Education Office once the data has been analysed; students may consult these files whenever they wish. Results and reports will also be posted on the notice board in the concourse, Chemistry Building.

(ii) **Programme questionnaires**

A programme questionnaire is made available to all single and joint honours students during the academic year. Programme questionnaires give students the opportunity to comment on issues relating to the structure and quality of their degree programme as a whole.

The member of staff with responsibility for student feedback is the Quality Assurance and Learning Enhancement Officer

(iii) **Other ways of making your views known**
You can make known your views on any aspect of your degree programme at any time: simply write it down and send it to the Quality Assurance and Enhancement Officer or the Education Office and your comment will be dealt with by staff.

If you have a specific concern and feel that none of the mechanisms described above is an appropriate way of raising the issue, you are welcome to discuss it with your Personal Tutor, Programme Director or the Head of School.

1.38 Complaints Procedures

If you have a complaint against the School or any of its staff which you either do not want to air via any of the above mechanisms, or if you have brought up an issue but are not satisfied with the outcome, you may complain to a higher authority. You should make a written complaint to the Head of School (except if the complaint concerns the Head of School, in which case the written complaint should be sent to the Dean of the Faculty of Engineering and Physical Science).

The written complaint should set out briefly:

- the nature of the complaint.
- the informal steps already taken together with full details of the response received.
- the reasons why you remain dissatisfied.

You should receive a written response to your complaint, normally within 10 working days. If you are still dissatisfied, you may refer the complaint formally to the Registrar and Secretary of the University. For full details of the University's formal complaints procedure, please see the University website at www.campus.manchester.ac.uk/staffnet/policies/studentcomplaintsprocedure/

1.39 Feedback on Assessment

The University policy on student feedback can be found at http://www.campus.manchester.ac.uk/tlso/map/teachinglearningassessment/assessment/sectionb-thepracticeofassessment/policyonfeedbacktostudents/

(i) **Tutorials**
Years 1 to 3 submit tutorial work to subject tutors in advance of tutorials. Tutors will make written comments on the work. Model answers are provided and further discussion takes place in tutorials. Many course units in year 4 also offer tutorial sheets and staff will mark these and discuss with students if submitted.

(ii) **Laboratory work**
Feedback is via interview with a member of staff or demonstrator as the work is being marked, or by an experiment feedback sheet.

(iii) **Skills work**
Feedback differs for different components. All work is marked and returned to students with the exception of the computer assisted learning unit.

(iv) **Essay work**
Feedback is via interview with your Personal Tutor or essay marker (for year 1) and the essay feedback sheet (for year 2).

(v) **Group work**
Feedback is via return of marked work and a debriefing lecture at the end of the unit.

(vi) **Project work**
Direct feedback on project work (i.e. release and justification of marks) is restricted since the material is under examination until publication of final degree results. However, detailed advice on the progress of the project and project preparation is available from the project supervisor. Those students entering the fourth year of MChem programmes will be given the opportunity to collect a copy of their third year project report feedback at the beginning of the next academic year.

(vii) **Examinations**
Examination marks for all years are released via the student system and we expect all students to discuss their performance with their Personal Tutor through the PADP system. Personal Tutors provide advice on areas of improvement and so on. An opportunity for all students to make an appointment to view their exam

scripts will be offered, usually in March for the January exams and in October for the previous year's May/June exams.

1.40 Retention of Work

In order to safeguard the security and objectivity of assessments, students' work must be available to examiners not only when it is first marked but also when marks are being reviewed. For this reason the University frequently retains students' work after it is has been submitted. The School follows the University policy on retention of work. Work in this category, which will be retained for a period of 12 months after the final examination board meeting of the academic year in which the work is considered, includes examination scripts, project reports and lab books.

Learning Resources

1.41 Library Facilities

John Rylands University Library of Manchester
General Enquiries: (0161) 275 3738
Loan Enquiries: (0161) 275 3717
Short-loan Enquiries: (0161) 275 3714
Deansgate Building: (0161) 834 5343
http://www.library.manchester.ac.uk

The John Rylands University Library of Manchester (JRULM) is one of the largest academic libraries in the country. It has extensive reference and borrowing facilities, including an excellent Short Loan Collection which contains core texts and other in-demand material from taught courses and associated essay work.

1.42 Computing Facilities

All students have a computer account and must activate this in order to use the University computing facilities such as:

- access to email
- access to a personal drive on which to store data (P: drive)
- printing facilities
- remote access

(i) **Chemistry Computing Cluster**
Open Monday to Friday 8:15am – 8pm

The Chemistry Computing Cluster, reserved for students in the Faculty of Engineering and Physical Science, is situated in the concourse of the School of Chemistry. It contains 88 Pentium PCs, two scanners, three printers (2 monochrome laser printers, one colour laser printer). Some machines are also equipped with CD re-writer and Zip drive. Two PCs are designed for disabled students and staff, giving wheelchair access and more workspace.

Students are reminded that University computing facilities are provided for work use only and must not be misused. In particular the use of University facilities to access social networking sites is not allowed. Students are encouraged to be considerate of their peers and ensure that there are sufficient facilities available for all.

(ii) **Other public and semi-public clusters**
There are 9 large public PC clusters available for use by staff and students, the locations of which can be found on the IT services website www.itservices.manchester.ac.uk/pcclusters/pcclusterlocations/

Students are expected to use cluster and other IT facilities in line with University regulations.