MSc Climate Change, Management & Finance
2016-17
Programme handbook
MSc Climate Change, Management & Finance Programme
Welcome from Programme Director

Dear MSc Climate Change, Management & Finance students,

I would like to extend a very warm welcome to our programme. As you are no doubt aware, climate change and sustainability have to be urgently addressed by all parts of society, businesses in particular. We are starting this programme to prepare students for a future where a mastery of the science and knowledge of the technologies in these areas, combined with a solid understanding of business challenges, will be highly valued in the corporate world and lead to exciting careers.

You are joining a leading educational institution and are pioneers in our new programme. We are really excited about the programme and the calibre of the students it has managed to attract. It is our aim to support you as you advance through the next phase of your educational career and to help you achieve your academic and personal goals. We are convinced that your experience of this programme will be stimulating, and that it will challenge you in new and different ways.

You will be very busy with classes and learning, but I am sure you will enjoy the London experience and take advantage of its incredible networking opportunities. In this spirit, we are designing a series of activities and talks throughout the year which you should make sure not to miss.

I hope that you will enjoy your year at Imperial and find it enriching. You and your classmates constitute a huge diversity of experience and backgrounds; you will learn from each other as much as from the classes and I hope you form strong bonds.

This handbook contains key information about the programme; you should make sure that you read it carefully.

Sophie, Eleana and I are always available for you to come and talk to us and we value your feedback. We will do our best to make your stay here fruitful, productive, rewarding and above all, incredibly enjoyable.

Best wishes

Mirabelle Muûls

Programme Director, MSc Climate Change, Management and Finance
Lecturer/Assistant Professor in Economics – Grantham Institute and Business School
Research Associate, Centre for Economic Performance, London School of Economics
MSc CCMF Team

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Introduction

The MSc Climate Change, Management and Finance at Imperial College London is a 12 month programme starting at the beginning of October and continuing through to the middle of the following September. Formal teaching generally follows the College’s schedule. Project work and/or internships extend into the summer vacation.

The purpose of the programme is to form the necessary interdisciplinary skills required in business in relation to future climate and environmental change. Business decisions are needed on a range of issues related to climate change, including carbon reduction, risk management, financing future ventures and management of supply chains. Well-formed decisions require people with knowledge of business, finance & economics on the one hand, and the scientific case for climate action on the other. In developing these skills, the next generation of business leaders will be equipped to tackle the important environmental challenges of the 21st century.

The programme is delivered jointly by the Business School and the Grantham Institute – Climate Change and the Environment. The Grantham Institute’s mission is to drive forward climate and environment related research at Imperial College London, translate this into real world impact and communicate our knowledge to help shape decision-making. The research, policy and outreach work that the Institute carries out is based on, and backed up by, the world-leading research by academic staff at Imperial.
AIMS, LEARNING OUTCOMES AND OBJECTIVES

The overall aim of the programme is to form the necessary interdisciplinary skills required in business in relation to future climate and environmental change, and the risks these pose to economic growth. The programme combines academic rigour and practical relevance, with a balance of teaching and learning, individual and group work.

Learning outcomes

Students who complete the programme successfully will be able to demonstrate knowledge of:

1. The scientific content, outcomes and resulting policies of the Intergovernmental Panel on Climate Change (IPCC)
2. How businesses manage risk, with a particular emphasis on the climate change needs of the 21st Century.
3. Quantitative numerical tools in climate science and business, including environmental forecasting, energy systems, economics, finance, insurance and risk analysis.
4. Business data and finance and how they can be used to drive corporate strategies on climate change risk and opportunities.
5. Sustainability issues and how/whether these are instrumental in forming strategies to manage climate risks, innovate and form medium-long term strategies.
6. How legislation and policy is formed on climate risk and how business works with such decisions.

Knowledge objectives

- Critical awareness of current issues in climate science and mitigation technologies
- The theory, practice and emerging trends in finance and management, including concepts, ideas, models and frameworks
- The business and innovation contexts in which sustainability and climate change feature
- The challenges and opportunities presented by climate change and sustainability needs in business and other organisations
- Analytical skills to integrate data and model-based analysis related to climate change and sustainability in a business environment

Skill objectives

- Communication skills: written and verbal
- Ability to analyse and develop diverse investigative and quantitative methodologies to solve management and financial problems, in particular in the themes of climate change and sustainability
- Demonstration of leadership and associated interpersonal skills
PROGRAMME STRUCTURE
The MSc Climate Change, Management and Finance Programme includes 2 main components: the Core Modules and the Report Component. The Programme consists of 2 online pre-session modules, 15 core modules, the Capstone Project or Work Placement, and the Climate Change, Management and Finance Report. The programme duration is approximately 12 months, running from October to the following September.

Online Pre-Session Modules
- Accounting Primer
- Quantitative Primer

Core Modules component
The 15 core modules are:

Autumn Term
- The Science of Climate Change
- Quantitative Methods
- Financial and Carbon Accounting & Reporting
- Business Economics, Climate Change and the Environment
- Corporate Finance & Carbon Finance

Spring Term
- Impact & Adaptation to Climate Change
- Risk Management & Climate Change
- Mitigating Climate Change
- Clean Tech Innovation and Investment
- Marketing and Sustainability

Summer Term
- Energy Economics and Strategy
- Climate Change and Governance
- Change Management & Leadership
- Climate Finance
- Sustainable Strategic Management

Report component
- Consulting Project -OR- Work Placement
- Climate Change, Management & Finance Report
<table>
<thead>
<tr>
<th>Term</th>
<th>Module</th>
<th>Module Code</th>
<th>Dates</th>
<th>Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-sessional August-October</td>
<td>Accounting Primer</td>
<td>BS1990</td>
<td>August</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Quantitative Primer</td>
<td>BS1991</td>
<td>September</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>The Science of Climate Change</td>
<td>BS1901</td>
<td>10 Oct – 11 Nov</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Quantitative Methods</td>
<td>BS1903</td>
<td>10 Oct – 11 Nov</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Financial and Carbon Accounting &amp; Reporting</td>
<td>BS1904</td>
<td>10 Oct – 11 Nov</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Business Economics, Climate Change and the Environment</td>
<td>BS1906</td>
<td>14 Nov – 16 Dec</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Corporate Finance &amp; Carbon Finance</td>
<td>BS1910</td>
<td>14 Nov – 16 Dec</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td>Autumn Term</td>
<td>Impacts and Adaptation to Climate Change</td>
<td>BS1902</td>
<td>16 Jan – 30 Jan</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Mitigating Climate Change</td>
<td>BS1907</td>
<td>01 Feb – 10 Mar</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Risk Management &amp; Climate Change</td>
<td>BS1905</td>
<td>03 Feb – 17 Feb</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td></td>
<td>Marketing and Sustainability</td>
<td>BS1912</td>
<td>20 Feb – 10 Mar</td>
<td>50 % Coursework, 50% Exam</td>
</tr>
<tr>
<td></td>
<td>Clean Tech Innovation and Investment</td>
<td>BS1908</td>
<td>13 Mar – 22 Mar</td>
<td>30 % Coursework, 70% Exam</td>
</tr>
<tr>
<td>Spring Term</td>
<td>Examinations for autumn term modules take place the week of 9 -13 January 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Examinations for spring term modules take place the week of 24 – 28 April 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer Term Block 1</td>
<td>Energy Economics &amp; Strategy</td>
<td>BS1713</td>
<td></td>
<td>100% Coursework</td>
</tr>
<tr>
<td></td>
<td>Climate Change &amp; Governance</td>
<td>BS1911</td>
<td>tbc</td>
<td>100% Coursework*</td>
</tr>
<tr>
<td></td>
<td>Change Management &amp; Leadership</td>
<td>BS1909</td>
<td>tbc</td>
<td>100% Coursework*</td>
</tr>
<tr>
<td></td>
<td>Climate Finance</td>
<td>BS1918</td>
<td>tbc</td>
<td>100% Coursework</td>
</tr>
<tr>
<td></td>
<td>Sustainable Strategic Management</td>
<td>BS1913</td>
<td>tbc</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>Summer Term Block 1 is assessed by coursework only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer Term Block 2</td>
<td>Consulting Project –OR – Work Placement</td>
<td>BS1914</td>
<td>19 June – 15 August</td>
<td>100% Coursework</td>
</tr>
<tr>
<td></td>
<td>Climate Change, Management and Finance Report</td>
<td>BS1917</td>
<td>Due 4 September</td>
<td>100% Coursework</td>
</tr>
</tbody>
</table>

* Subject to approval
External Speakers weekly seminar.

The MSc builds strongly on the expertise that businesses have on themes related to climate change and sustainability. On Thursdays from 5 to 6pm during term time, guest speakers will give a talk. The programme of these, subject to change, consists of:

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker and Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 13, 2016</td>
<td>Zoe Knight, HSBC</td>
</tr>
<tr>
<td>October 20, 2016</td>
<td>James Robey, CapGemini</td>
</tr>
<tr>
<td>October 27, 2016</td>
<td>Alexander Verbeek</td>
</tr>
<tr>
<td>November 3, 2016</td>
<td>Paul Spence, EDF</td>
</tr>
<tr>
<td>November 10, 2016</td>
<td>Michael Liebreich, Bloomberg New Energy Finance</td>
</tr>
<tr>
<td>November 17, 2016</td>
<td>Bjorn Otto Svedrup, Statoil</td>
</tr>
<tr>
<td>November 24, 2016</td>
<td>Ian Simm, Impax</td>
</tr>
<tr>
<td>December 1, 2016</td>
<td>Paul Taylor, Lego group</td>
</tr>
<tr>
<td>December 8, 2016</td>
<td>Tom Delay, Carbon Trust</td>
</tr>
<tr>
<td>December 15, 2016</td>
<td>Mamadou-Abou Sarr, Northern Trust</td>
</tr>
</tbody>
</table>

Speakers for the Spring and Summer term will be confirmed later in the year.
Skills Table for MSc Climate Change, Management and Finance

We split professional skills into four main categories. This provides you with the chance to identify the structure of skills learning and how useful they can be in the workplace.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Development</strong></td>
<td>Personal effectiveness on an operational level. This includes the dynamics of working individually or as a member of a group</td>
<td>Working in teams or time management</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Verbal, non-verbal and written skills</td>
<td>Preparing and delivering presentations</td>
</tr>
<tr>
<td><strong>Technical and Analytical</strong></td>
<td>Essential workplace tools and techniques beyond curriculum teaching</td>
<td>Data collection and analysis, R, spreadsheets.</td>
</tr>
<tr>
<td><strong>Ethical</strong></td>
<td>Key skills that make an effective, responsible and ethical marketing manager</td>
<td>Learning how to adopt a responsible attitude towards business in the context of climate change and sustainability</td>
</tr>
</tbody>
</table>

These are addressed and developed in the different components of the MSc Climate Change, Management and Finance as shown in the Table on the next page.
<table>
<thead>
<tr>
<th>Professional Skills Type</th>
<th>Induction</th>
<th>Core Modules</th>
<th>Report</th>
<th>Career and Professional Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Development</td>
<td>Manage resources and time effectively in order to achieve intended goals</td>
<td>Work effectively as a team member and on an individual basis</td>
<td>Consider the elements of effective leadership</td>
<td>Identify your strengths and weaknesses in relation to developing your professional competences</td>
</tr>
<tr>
<td>Communication</td>
<td>Communication in a cross-cultural context</td>
<td>Research and construct reports in a variety of formats: including computer processing, business and analytical reports, and oral presentations</td>
<td>Critically review evidence including its reliability, validity and significance</td>
<td>Develop interpersonal skills including key communication skills for career progression</td>
</tr>
<tr>
<td></td>
<td>Prepare and deliver professional and persuasive presentations</td>
<td>Develop interview techniques for different professional environments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical and Analytical</td>
<td>Integrate, analyse and evaluate new and/or abstract information and situations</td>
<td>Apply analytical techniques to the decision making process in business, both systematically and creatively, and present analysis in a clear and persuasive manner</td>
<td>Participate in managerial decision processes</td>
<td>Learn to adapt and apply your skillset within a particular context.</td>
</tr>
<tr>
<td></td>
<td>Undertake literature searches</td>
<td>Produce creative and realistic solutions to complex problems</td>
<td>Demonstrate the understanding of the risks and opportunities of climate change for businesses</td>
<td></td>
</tr>
<tr>
<td>Ethical</td>
<td>To consider the ethical context of climate change and sustainability</td>
<td>Learn how to adopt a responsible attitude towards climate change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CCMF Careers and Professional Development

In addition to the assessed taught modules, the programme has been designed to address the specific professional development needs of students entering a wide range of careers.

Our professional development element of the programme has been designed in conjunction with the Business School’s Careers and Employer Relations teams. Students will have access to the Business School’s Career Service through the availability of online sessions as well as 1-to-1 meetings with a Careers Adviser. There will be an integrated series of events that will run in both the autumn and spring terms. These sessions will include employer talks and forums as well as professional development workshops tailored to the programme.

The overall aim of this element of the programme is to help prepare you for your future career and, in particular, to consider and develop the professional competences needed including consideration of leadership competences. Not only will you receive advice on writing successful CVs and applications but also you will have access to a wide range of workshops including how to make a personal impact (during both interviews and business meetings), how to present persuasively to a variety of audiences and how to effectively network.
Programme Assessment

The Programme is assessed through a mixture of coursework and examination. See table on page 6 for specific module assessments.

Formal Exams

Examinations can take various formats depending on the subject concerned. The format is subject to change and the Module Leader will provide full information during the module. Examinations for modules taken in the autumn term will take place the week of 9 January. Examinations for modules taken in the spring term will take place the week of 24 April.

Coursework

Coursework can be individual, team-based or a mixture of both. See individual module outlines for breakdown of coursework.

Syndicate Teams

Teamwork is an integral part of the teaching, learning and assessment strategy for the MSc CCMF. You will be assigned to a team for all assessed group work associated with the programme. Syndicate teams are responsible for joint work (including assessed work) in the form of, for example, case-study analysis, essays, quantitative analysis, and class presentations. While a few of your assignments will also be individual assessments, the team assessment will be assigned regularly within each term. This is to reflect the reality of working in business today where you often have to work in groups or teams on a project or to collaborate in respect of decision-making. Developing your teamwork skills is considered an essential element for success on this Masters programme. We will start developing your teamwork skills starting on the very first day of the programme.

Working in teams, particularly diverse ones, in order to meet tough deadlines is a challenging process and demands maximum effort from all team members to ensure that the team works harmoniously, efficiently and in a mutually supportive environment.

You should be aware that you have a collective responsibility for the integrity of teamwork submitted for assessment. This means that if part of the work is plagiarised, all team members will be held accountable unless proof can be provided, documenting each member’s contribution. You should, therefore, retain an audit trail of your contribution for this purpose.

Above all, where issues arise between team members, you are expected to adopt a professional approach and work as a team to try to resolve them. The key to successful team work is to consider each other’s strengths and weaknesses and effectively utilise the strengths of each team member in relation to the group task concerned. Each member will differ in relation to their educational background and work experience, and it is critical that your teamwork recognises these differences whilst also maximising the learning experience for all members. You are expected to take turns to facilitate team projects across modules.
You will be allocated to a group during induction week.

**Feedback**

Feedback serves two functions. First, it provides a person or team with information about their progress and performance and thus provides a basis for developing a strategy of continuous improvement. Second, it may provide an indication to others about ability and quality.

We place great emphasis on both these elements. Throughout the programme you will receive frequent assessment in relation to coursework, and ultimately in the exams and grading of your project. You will also be asked continuously to assess your learning experience in relation to both modules and lecturers and as a Business School. Further information on assessment feedback can be found in the Academic Regulations and Policies document on the Hub.

**Student Feedback**

If you have any comments/questions/suggestions to make about the CCMF Programme, we encourage you to contact us directly by emailing your Programme Manager, Sophie Smith (sophie.smith@imperial.ac.uk).

At the end of each module, typically during the last week of a module, you will be requested to complete and return anonymous online questionnaires providing your feedback on the lecturer’s teaching performance on a five point scale. You are also invited to provide constructive comments on each module which we will use to make changes and improvements. This Module Excellence Survey (MODES) feedback is taken very seriously and is used to identify examples of good practice and highlight areas that could be improved. The School really appreciates your support in completing the surveys. If only a small number of students respond, the feedback will not truly reflect the general thoughts of the cohort and will therefore be less valid. MODES results are passed onto the lecturers, Programme Directors, Programme Managers, Department Heads, the Dean and the Associate Dean. Your feedback is completely anonymous and is not given to Faculty until they have completed and submitted their marking, so you can be assured that the feedback you provide will have no influence on the grades you receive. Once they have received the feedback, your Programme Director will post a response to the themes and issues raised in the MODES on the Hub.

We will also ask you to elect a CCMF Staff Student Committee during the first term. This committee fulfils a variety of social and pastoral functions. The committee meets formally with the staff on a regular basis, as well as maintaining informal contact. One aspect of a committee member’s role is to act as a channel of communication for the cohort’s views and problems.

Staff Student Committee meetings are held once a term. You therefore will have a chance to contact the Student Committee and raise any concerns, questions or make suggestions. These meetings offer an opportunity to both staff and students to provide mutual feedback.
Marking Scheme for MSc Climate Change, Management and Finance (for students admitted in October 2016)

All modules are equally weighted at 7%, with the exception of Energy Economics & Strategy, Climate Change & Governance, Change Management & Leadership, Climate Finance & Sustainable Strategic Management which are weighted at 3.2%

There are three components

- Autumn Component
- Spring Component
- Summer Component

The pass mark for Master’s level programmes is 50%.

Where a module has two or more assessments, a mark of between 40-49% may be condoned for individual assessments provided the aggregate of all assessments for the module is equal or greater than 50%.

Where a module has only one assessment a mark of between 40-49% may be condoned if the aggregate for all modules in the programme component is equal or greater than 50%.

Failure in an assessment where the mark is less than 40% cannot be condoned.

Pass

- An aggregate mark of 50% or greater across the programme as a whole
- An aggregate mark of 50% or above in each programme component
- At least 50% in all modules assessed by coursework only*

Merit

- An aggregate mark of 60% or greater across the programme as a whole
- An aggregate mark of 60% or above in each programme component
- At least 50% in all modules assessed by coursework only*

Distinction

- An aggregate mark of 70% or greater across the programme as a whole
- An aggregate mark of 70% or above in each programme component
- At least 50% in all modules assessed by coursework only*

*Energy Economics and Strategy, Climate Change & Governance (subject to approval), Climate Management & Leadership (subject to approval), Climate Finance, Sustainable Strategic Management, Consulting Project, Work Placement and Individual Report
Prizes (subject to College approval):

**Imperial College Business School and Grantham Institute Prize for the Best Overall Performance on MSc Climate Change, Management and Finance**
Awarded annually to an MSc Climate Change, Management and Finance student for the best overall performance
£500

**Imperial College Business School and Grantham Institute Prize for the Best End of Year Report on MSc Climate Change, Management and Finance**
Awarded annually to an MSc Climate Change, Management and Finance student for the best end of year report performance
£250

**Imperial College Business School and Grantham Institute Prize for the best overall performance in the MSc Climate Change, Management and Finance Summer Modules**
Awarded annually to an MSc Climate Change, Management and Finance student with the highest combined mark for the Consulting Project/Work Placement and Summer taught modules
£200
Master's Level Marking Criteria for Exams and Essays in Imperial College Business School

<table>
<thead>
<tr>
<th>Marks</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>85+</td>
<td>Marks represent an exceptional distinction performance</td>
</tr>
<tr>
<td>70 – 84%</td>
<td>Marks represent a distinction performance</td>
</tr>
<tr>
<td>60 – 69%</td>
<td>Marks represent a merit performance demonstrating a clear grasp of the relevant</td>
</tr>
<tr>
<td></td>
<td>concepts and facts</td>
</tr>
<tr>
<td>50 – 59%</td>
<td>Marks represent a pass performance demonstrating an adequate grasp of most of</td>
</tr>
<tr>
<td></td>
<td>the relevant concepts and facts</td>
</tr>
<tr>
<td>40 – 49%</td>
<td>Marks represent a fail performance</td>
</tr>
<tr>
<td>30 – 39%</td>
<td>Marks represent a fail performance (with significant shortcomings)</td>
</tr>
<tr>
<td>0 – 29%</td>
<td>Marks represent a fail performance (with major shortcomings)</td>
</tr>
</tbody>
</table>

In addition, the following guidance is provided in relation to projects

<table>
<thead>
<tr>
<th>70%+</th>
<th>A mark of this level corresponds to a distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Report indicates exceptional success in tackling the Project. All the Project's objectives have been met as fully as could reasonably be expected. The student has shown initiative and been rigorous in the collection and use of data. Where appropriate, relevant literature has been critically evaluated. The standard of the Report presentation is very high.</td>
</tr>
<tr>
<td></td>
<td>A mark of this level should be reserved for Reports of exceptional merit which has something extra and which surprises. The supervisor will be required to justify why a distinction has been awarded in the section provided.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>60-69%</th>
<th>The student has tackled the problem conscientiously and logically and has produced sound conclusions. Presentation is of good standard. A mark of this level corresponds to a merit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-59%</td>
<td>The student’s work has been no more than moderate overall or would have deserved a higher grade but for areas of significant weakness.</td>
</tr>
<tr>
<td>&lt;50%</td>
<td>The student’s work has failed to reach a satisfactory standard. A mark below 50% should be used to indicate a “fail” in the Project.</td>
</tr>
</tbody>
</table>
Rules and Degree Classification

The programme is assessed through a mixture of coursework and examination.

The Scheme of Examinations

Assignments

As part of the requirements, all assignments may be inspected by the Board of Examiners. We retain copies of work that you submit for this purpose but it is essential that you keep all work that is returned to you until the MSc CCMF has been completed, should another copy be required.

Your assignments will be submitted via the Hub. Submissions must be accompanied by the plagiarism statement in the submission area.

Assignment Submission Guidelines

Please see the ‘Assignments’ section of the Academic Regulations and Policies document on the Hub.

Plagiarism and cheating

Plagiarism is the presentation of another person’s words, ideas, judgement or data as though they were your own. For example:

- not referencing the source of your ideas or arguments when they are derived from your reading,
- taking verbatim the words of someone else’s work and putting it into your work without quotation marks and referencing,
- taking whole sections out of books, articles, lecture notes, other reports or students’ work, and including them in your report uncited.

When submitting your assessed coursework, via the Hub or in hardcopy, you will be required to confirm that you have read and understood the definition of plagiarism. Submitting the assignment will certify that the work presented is entirely your own, except where indicated. This includes your final project or essay as well as all other assessed work.

In relation to group work, you should be aware that you have a collective responsibility for the integrity of the piece of group work submitted for assessment. This means that if part of the work is plagiarised, all group members will be held accountable unless proof can be provided by each member of their contribution. You should, therefore, retain an audit trail of your contribution for this purpose.

The College has an online plagiarism module which has been designed to teach you everything you need to know about how to reference correctly and therefore avoid plagiarism. This is a compulsory module and we ask you to take this in the first term so that you reference correctly in your very first set of assignments. This online module contains such important information in helping you to avoid plagiarism that students who have not
completed the module by the end of the first term will have their exam results for all modules withheld until the plagiarism module is successfully completed. There are a number of different penalties for plagiarism, dependent on the severity of the case and the weighting of the piece of work. Full information on plagiarism and cheating can be found in the Academic Regulations and Policies document on the Hub.

We strongly advise that you attend the Library referencing sessions and read the Harvard Referencing Guide, which can be found at [http://www.imperial.ac.uk/admin-services/library/learning-support/reference-management/harvard-style/](http://www.imperial.ac.uk/admin-services/library/learning-support/reference-management/harvard-style/). Additional support and guidance is available from the Business Library Team ([libbpd@imperial.ac.uk](mailto:libbpd@imperial.ac.uk))

**The Examination Process**

All examination scripts will be marked in detail by the Module Leader with a second marker undertaking sample check marking to ensure that the mark awarded by the Module Leader is appropriate. A sample of scripts is then sent to an External Examiner from another institution to ensure that the standard of marking at Imperial College Business School is commensurate with elsewhere in the UK. External Examiners also approve draft examination questions prior to the examination being set.

The following describes the process for examined modules:

The essentials of this process are laid down by the College and are requirements that apply to all taught postgraduate programmes.

The Board of Examiners is made up of all members of the School’s academic staff who teach on the programme (called ‘internal examiners’) plus a number of external examiners drawn from other universities. A representative of the College Registry also normally attends Board meetings. The external examiners are appointed for no more than four consecutive years. Each external is allocated a number of subjects in their area of expertise. The Board Chairman is the Programme Director.

The process is as follows:

- The internal examiner prepares an exam paper for their subject. This is checked for errors and clarity by a different internal examiner.
- The paper is sent to the designated external examiner who further checks for clarity, but also ensures that the paper is appropriate in terms of standard, coverage of the syllabus, consistency with previous papers and generally acts as a ‘watchdog’ for quality and fairness to candidates. Any perceived problems or issues are discussed with the internal examiners and, if necessary, with the Chairman, and agreement reached.
- Following the examination itself, the papers (which are identified by candidate number only and not your name) are marked separately by two internal examiners. In the event of a disagreement in the marks, there will be a discussion between the internals, and if necessary a third internal examiner will be consulted. If necessary, there will be adjudication by an external examiner.
The proposed marks for all candidates together with a sample of scripts are sent to the external examiner. The sample will normally include scripts that are marginal at a pass/fail or merit/distinction boundary and a selection across the range. The purpose of the sample is threefold:
  o to allow the external examiner to ensure that the overall standard of performance is accurately reflected in the marks awarded
  o to give a third (and usually conclusive) judgement in marginal cases
  o to ensure that proper procedures have been followed in the examining process

A sample of coursework is also sent to the external examiners for each subject.

When all marks are available, an Internal Board of Examiners will review the marks prior to the External Examiners’ meeting.

Past examination papers or specimen questions are provided to guide students on content only. The format is subject to change and the Module Leader will provide full information during the module.

To ensure consistency from year-to-year, the Board normally applies the marking guidelines quite rigidly. However, where a candidate has suffered from illness or other circumstances that the Board believes will have had a significantly adverse effect on their performance, the Board may allow the candidate to pass even though their marks would otherwise cause them to fail. It is fair to add, however, that Boards have used their discretion in this way only in cases of truly marginal failure.

The external exam board members for the MSc Climate Change, Management and Finance are:

Professor Trevor Hoey, University of Glasgow*
Professor Ian Thomson, University of Birmingham*
One TBC

*pending college approval

The details provided above are for information only. Please note that it is not appropriate for students to contact the externals directly regarding their studies. Any issues that you have in relation to your assessment should be raised internally with your Programme Team in the first instance or with the College Registry if necessary. Issues can only be raised with College Registry once the External Examiners’ meeting has taken place and results have been released by Registry.

If candidates have experienced serious illness or other major problems which they consider to have affected their academic performance, they should complete a mitigating circumstances form. Please see the relevant section of the Academic Regulations and Policies document on the Hub.

Candidates who are judged to have failed at this stage are allowed by College regulations ONE further entry to the examinations. Students who need to re-sit will be given the option to either re-sit in the September re-sit period, or during the next academic session. Students
with more than one re-sit exam will need to choose whether to re-sit exams either in September OR in the next academic year, they will not be allowed to spread them out across both periods.

A candidate may be required to re-sit for the following reasons:

- where failure arises from an examination mark below 40% and the candidate passes on all other criteria. In this instance re-entry is required only in the paper in which less than 40% is achieved. To pass, the candidate must achieve a mark of at least 40% on re-entry.
- where failure is a result of achieving less than 50% in the average of all the examination and coursework marks. In this instance a candidate must re-sit any examination in which they achieved less than 40%, and is given the opportunity to re-sit any examination in which they have achieved less than 50% in order to increase their overall average above 50%.

Information on re-sitting examinations, resubmitting coursework, examination feedback and reasonable adjustments can be found in the Academic Regulations and Policies document on the Hub. This document also contains information on the format of coursework, penalties for late submission and requesting coursework extensions.
CORE MODULE OUTLINES

(Note: the outlines are tentative, the final versions will be provided on the Hub at the start of each module)
BS1901 The Science of Climate Change

Module Outline

Module Leader
Name: Dr Erik van Sebille
Email: e.van-sebille@imperial.ac.uk
Room: Grantham Institute

Module Aims
This module will provide students with a basic understanding of the science behind climate change. Students will understand and be able to convey why the science unequivocally points to a changing climate, and why humans are the main cause for that. The module will discuss the role of the Intergovernmental Panel on Climate Change (IPCC) in synthesising scientific knowledge on climate change, particularly the physical basis for that. The second part of the module will provide an introduction to climate modelling, focussing on how to use projections provided in the Climate Model Intercomparison Project (CMIP).

Module Objectives

Knowledge Objectives
This is an introductory module. Students are expected to develop a basic knowledge of:

- The Intergovernmental Panel on Climate Change (IPCC) and its processes
- The greenhouse effect
- The different greenhouse gasses
- Climate feedbacks and climate sensitivity
- The carbon and hydrological cycle
- Climate variability versus climate changes
- Climate modelling
- Climate projections and their uncertainties

Skills Objectives
The module will facilitate the student development of:

- Interpretative skills in relation to climate modelling and projections of future climate, including a critical attitude to their values and limitations
- Computational and analytical skills in relation to the use of simple and more complex climate models
- Communicative skills in relation to voicing facts about climate change

Learning Outcomes
On successful completion of the module, students should be able to:

- understand the basic climate science underpinning the IPCC reports
- appreciate why climate observations unequivocally indicate anthropogenic warming
understand how computer codes are used to model climate, and how climate projections are computed
be familiar with the different types of uncertainties and risks associated with climate projections

Structure
The module will consist of 10 two-hour lectures, including some by guest lecturers, and 3 computer laboratories. The lectures and laboratories are interactive and rely on student participation. The module will be taught in two sessions per week, plus three computer lab sessions over the duration of the module.

Assessment
The module will be assessed by:

Course work (30%)
• Reports on the three computer laboratories

Exam (70%)
• Mix of MCQ and short and long questions, covering the science of climate change and climate projections

Module Outline
The module is structured in two parts

Part A: Climate Change Science (6 lectures and 1 computer laboratory)

Part B: Climate Modelling (4 lectures and 2 computer laboratories)

Part A – Climate Change Science
• Why we know the climate is changing
• Climate extremes
• The IPCC, its process and the way it’s reported on in the media
• The greenhouse effect and radiation balance, including climate sensitivity
• The role of the atmosphere, ocean, biosphere and cryosphere in global climate
• Heat transport, the carbon cycle, and the hydrological cycle
• Climate variability versus climate change, including El Nino and palaeoclimates
• The role of ice on the global climate

Part B – Climate Modelling
• Simple radiative models
• Intermediate coupled climate models
• The Climate Modelling Intercomparison Project (CMIP)
• Climate projections and Representative Concentration Pathways
• Validation of Climate Models
• Detection and Attribution
**Core text**


BS1903 Quantitative Methods
Module Outline

Module Leader
Name: Dr Ralf Martin
Email: r.martin@imperial.ac.uk
Room: 277, Business School Tanaka

Co-lecturer
Name: Davide Benedetti
Email: d.benedetti@imperial.ac.uk
Room: 349, ACE Extension

Module Aims
This module provides students with the principles and techniques needed to handle the mathematics and statistics that are an integral part of business, accounting, economics and climate change science. Its aim is to give students a structural analytical framework to be able to organize and interpret business data.

Learning Outcomes
On successful completion of the module, students should be able to:
- use graphical and analytical techniques to present data and extrapolate from it the important trends
- employ a statistical package to carry out statistical analysis and assist in business decision-making
- understand and apply basic concepts of probability and econometrics
- interpret results of regression models
- assemble, collect and manage big data resources

Structure
The module will be taught in three sessions per week over five weeks, most of which will be computer labs

Assessment
Coursework 30%
Written exam 70%
BS1904 Financial and Carbon Accounting & Reporting
Module Outline

Module Leader
Name: Jolande Bot-Vos
Email: j.vos@imperial.ac.uk
Room: 4.03A, 53PG

Co-lecturer
Name: Dr Arnaud Brohé
Email: arnaud@co2logic.com

Module Aims
This module will show how accounting is necessary both for organisational finance and management and to quantify environmental impacts and carbon emission. It will explain the techniques of financial, environmental and management accounting, and examine their relevance to the broader issues of decision-making and management control in organisations. The module gives students a basic insight into the way that business performance is measured, and how business decisions can be structured and analysed. The valuation of natural assets through environmental accounting, as well as the measurement, calculation, reporting and auditing of carbon, will also be addressed.

Module Objectives

Knowledge Objectives
This is an introductory module. Students are expected to develop a basic knowledge of:

- Balance sheets and profit & loss accounts
- The valuation of assets and liabilities
- Statement of Cash Flows
- Financial ratios and how these can be used to analyse the performance of the company
- Annual Report Analysis
- Cost concepts and costing systems
- Analytical techniques for economic decisions in business enterprises
- Budgeting and performance measurement at the operational level
- Carbon accounting and reporting

Skills Objectives
The module will facilitate the student development of:

- Interpretative skills in relation to accounting information including a critical attitude to its value and limitations
- Computational and analytical skills in relation to the use of accounting data to facilitate decisions concerning the operation of, and investment in, production systems, and the design and production of products or services
Learning Outcomes
By the end of the module students will be able to:

- Identify the major issues raised by financial and cost accounting data
- Identify the major threats and opportunities of carbon accounting
- Take an effective involvement in business operations

Structure
The module will be taught in two sessions per week over five weeks, except for the carbon component which will be taught in two sessions in a two day workshop.

Assessment
The module will be assessed by:

Course work (30%)
- Group project covering Carbon Accounting and Reporting

Exam (70%)
- Mix of MCQ and short and long questions, covering Financial, Carbon and Management Accounting

Module Outline
The module is structured in three parts
Part A: Financial Accounting and Reporting (4 lectures)
Part B: Carbon Accounting and Reporting (2 workshops)
Part C: Management Accounting (5 lectures)

Part A - Financial Accounting and Reporting
- The nature and roles of financial accounting
- The Balance sheet
- Valuation of assets and liabilities
- Profit determination
- The Income Statement
- The Statement of Cash Flows
- Types of ratios
- Ratio and annual report analysis

Part B – Carbon Accounting and Reporting
- The science of climate change
- The sources and effects of greenhouse gas emissions (including non CO₂ impact of aviation)
- The main greenhouse gas emissions protocols
- Greenhouse gas inventory reporting platforms and certification methods
• Greenhouse gas mitigation opportunities and tools (including carbon pricing instruments such as carbon taxes and cap and trade schemes)
• Carbon intensity of the electricity supply
• Lifecycle thinking and product carbon footprint

Part C - Management Accounting
• The nature and roles of management accounting
• Basic cost concepts
• Cost accounting systems
• Short-run decision making
• Budgetary control
• Performance evaluation
• Investment decisions

Core text

Financial and Management Accounting
Jones, M., 2013, Accounting, Wiley, third edition*
* Please, note that the third edition is substantially different from the previous editions, in particular because it includes international accounting standards, which are relevant to this module.

Carbon Accounting
http://www.ghgprotocol.org/standards/corporate-standard

BS1906 Business Economics, Climate Change and the Environment
Module Outline

Module Leader
Name: Dr Mirabelle Muûls
Email: m.muuls@imperial.ac.uk
Room: Grantham Institute

Module Aims
The first purpose of this module is to introduce economic concepts of practical value in business life. Elementary economic concepts such as marginal costs, sunk costs, and elasticities will be fully explained since they have become an increasing part of everyday business life.
The second purpose of this module will be to provide an internally consistent conceptual framework for thinking about the interaction between the firm and the market.
The third aim will be to introduce students to the economics of climate change and the environment, and to show how formal economic thinking can assist real world policymaking and business.

Learning Outcomes
On successful completion of the module, students should be able to:
  • solve stylised quantitative questions in a business context
  • understand a general model of the operation of firms within a market economy
  • understand the analytical tools that economics offers for the study of global and local impacts of climate change

Structure
The module will be taught in two sessions per week over five weeks

Assessment
Coursework 30%
Written exam 70%
BS1910 Corporate Finance & Carbon Finance

Module Outline

Module Leader
Name: Professor James Sefton
Email: j.sefton@imperial.ac.uk
Room: 3.08 53PG

Module Aims
The module will provide students with a solid foundation in financial theory, also introducing them the main issues related to financial decision-making and investment practice. Carbon finance refers to both investments in greenhouse gas emissions reductions by companies and projects, and the creation of financial instruments that effectively put a price on carbon emissions. This module will also cover the latter. The module will include the basic principles of corporate finance, financial markets, and the interaction between the two.

Students will learn about risk and return, diversification, portfolio theory and emissions trading systems. Concepts such as the cost of capital will be introduced, as well as its relation to valuing financial instruments such as stocks, bonds and carbon credits. The module will also explore the following issues: How do firms choose from among several investment opportunities? How do firms decide how much cash should be returned to the owners, and what are the alternative forms to do this? What are the alternative ways to finance a firm’s operations? How much debt should a firm use? What financial issues are faced by firms in the energy sector? How much carbon credits should a firm trade? How can corporate finance be used to manage businesses impacted by climate change?

Learning Outcomes
On successful completion of the module, students should be able to:

- select and effectively apply techniques for valuing firms and comparing investment opportunities
- evaluate and discuss possible methods of raising capital and how to select the capital structure of the firm
- understand the relationship between carbon finance and conventional finance
- understand the functioning of financial markets and how the market prices of financial assets relate to the cost of capital of firms

Structure
The module will be taught in two sessions per week over five weeks.

Assessment
Coursework 30%
Written exam 70%
BS1907 Mitigating Climate Change

Module Outline

Module Leader
Name: Dr Tamaryn Napp
Email: tamaryn.napp@imperial.ac.uk
Room: Grantham Institute

Module Aims
The purpose of this module is to introduce students to potential climate change mitigation strategies. Following a general introduction, the most relevant technological mitigation strategies are presented and discussed, including biological and inorganic carbon sequestration, energy system transformation and renewable energy technologies. The IPCC Working Group III Report’s content will be explored. National climate change mitigation plans from some of the world's major emitters of greenhouse gases will be analysed and discussed. The module will provide the knowledge and tools to devise and understand effective and cost-effective strategies for climate change mitigation on a global, sectoral and local scale.

Learning Outcomes
On successful completion of the module, students should be able to:
- demonstrate knowledge of the most relevant technological mitigation solutions currently or soon to be available
- compare different climate change mitigation strategies
- present to a lay audience the main benefits and costs of different mitigation strategies

Structure
The module will be taught in two sessions per week over five weeks

Assessment
Coursework 30%
Written exam 70%
BS1908 Clean Tech Innovation and Investment

Module Outline

Module Leader
Name: Dr Charles Donovan
Email: c.donovan@imperial.ac.uk
Room: 284 Business School Tanaka

Module Aims
In this module, we will learn why innovation in climate change is critical. We shall explore how firms create, manage, protect and capture value from technological innovations in general and how these are invested in.

There are a variety of tools and processes which can help firms benefit from their innovative endeavours, which will be discussed in the module.

We will take an in-depth look at rapidly evolving global energy and climate change markets with a specific focus on low-carbon and renewable energy technologies. The financing of innovation by venture capital, private equity or crowd funding will be discussed. The course will also address the financing of large low-carbon energy projects.

Learning Outcomes
On successful completion of the module, students will be able to:
- appreciate and engage with the bio-physical, social and political dimensions of climate change impacts and adaptation
- have the necessary background to integrate adaptation concepts and solutions into their work on climate change issues

Structure
The module will be taught in five sessions over two weeks

Assessment
Coursework 30%
Written exam 70%
BS1902 Impact and Adaptation to Climate Change
Module Outline

Module Leader
Name: Dr Kris Murray
Email: kris.murray@imperial.ac.uk
Room: Grantham Institute

Module Aims
The module provides students with an introduction to climate change impacts and adaptation. Observed and anticipated climate change impacts underpin climate change risk assessments across sectors. While preventing or limiting the magnitude and/or rate of climate change by reducing greenhouse gas emissions (mitigation) is fundamental to reducing these risks, climate change impacts have already occurred and further impacts are inevitable irrespective of our best mitigation efforts. Adaptation focuses on the actions we can take in the near term to prepare for and reduce the impacts of climate change. The aim of the module is to review the key realized and potential impacts of climate change across a range of key sectors, understand their linkages, and develop an appreciation for what is required for adaptation strategies to be effective.

Module Objectives

Knowledge Objectives
Students will develop a basic knowledge of:

- The role of climate change within the broader context of the Anthropocene
- Climate change impacts, past, present and projected
- Risk assessment and management concepts
- Key sectoral risks and reasons for concern
- Needs and vulnerability assessment (biophysical, social, economic)
- Adaptation concepts
- Adaptation opportunities and responses (engineering and technology, ecosystem-based, institutional, social)
- Adaptation implementation, limits to adaptation and maladaptation

Skills Objectives
The module will facilitate the student development of:

- Interpretative skills in relation to climate change impacts
- Practical skills in climate change risk assessment and management
- Problem solving skills in identifying and developing adaptation strategies

Learning Outcomes
By the end of the module students will be able to:
Appreciate the range of climate change impacts that have occurred and are anticipated.
Appreciate why and how adaptation is central to efforts to combat the impacts of climate change.
Understand the impact and risk assessment processes that underpin the IPCC 5th report.
Articulate the key challenges of developing effective adaptation strategies and policies.
Contribute to the identification of adaptation solutions in some specific contexts.

**Structure**
The module will consist of 10 two-hour lectures. The lectures are interactive and rely on student participation.

**Assessment**
The module will be assessed by:

Course work (30%)
- Two written assignments

Exam (70%)
- Mix of MCQ and short and long questions, covering the science of climate change and climate projections

**Module Outline**
The module is structured in two parts

Part A: Climate Change Impacts
Part B: Climate Change Adaptation

**Part A – Climate Change Impacts**
- Welcome to the Anthropocene
- The characteristics of climate change and mechanisms underlying impacts
- Risk assessment and management approaches
- Sectoral risks: Natural systems
- Sectoral risks: Human systems

**Part B – Climate Change Adaptation**
- Adaptation concepts
- Adaptation opportunities and responses (engineering and technology, ecosystem-based, institutional, social)
- Dynamic adaptation, co-benefits and learning
- Adaptation implementation, limits to adaptation and maladaptation
- Partnerships and collaboration

Structure
The module will be taught in two sessions per week over five weeks

Assessment
Coursework 30%
Written exam 70%
BS1912 Marketing and Sustainability
Module Outline

Module Leader
Name: Colin Love
Email: c.love@imperial.ac.uk
Room: 284 Business School Tanaka

Module Aims
In a world where organisations are under increasing public scrutiny, communication and marketing is becoming an increasingly major part of business strategy. Marketing studies the firm’s relationships with customers and different stakeholders. More often than not organisations spend resources developing and marketing new products/services only to discover that consumer response is far less ecstatic than expected. To succeed, business must make a more compelling case than it is today - in terms of consumer experience, deeper purpose, social value, and greater inspiration for consumers as well as employees. Effective marketing management requires a clear understanding of consumers and the market in general. The issues surrounding sustainability and climate change are at the heart of marketing and communication.

The purpose of this module is provide students with the tools and understanding of how businesses manage relationships with key stakeholders, including employees, and promote a positive corporate reputation. Strategies to foster staff and stakeholder engagement, and to create consensus, for example on the need for changing a company’s culture, will be analysed. Current communication technologies, skills and techniques will be analysed in combination with and external speakers and case studies with a particular focus on sustainability issues.

Learning Outcomes
On successful completion of the module, students will be able to:
- demonstrate an understanding of marketing, corporate strategy and its links with an organisation's communication strategy
- understand how marketing contributes to a business' competitiveness and survival
- provide students with critical marketing insights, tools, and techniques
- apply sustainability concepts to marketing and communication strategies in practice

Structure
The module will be taught in two sessions per week over five weeks.

Assessment
Coursework 50%
Written exam 50%
BS1905 Risk Management & Climate Change
Module Outline

Module Leader
Name: Professor Enrico Biffis
Email: e.biffis@imperial.ac.uk
Room: 4.04 58PG

Module Aims
In this module students will be introduced to the concepts of risk and risk management in general in relation to environmental and climate change. We will cover different categories of risk faced by corporations, such as market, currency, credit, liquidity, operational, and reputational risks, as well as environmental and climate risks. The rationale for risk management will be explained: why risk is costly to firms; post-loss financing tools; hedging, insurance, and self-insurance. The module will place a particular emphasis on operational risk, its definition and management, as well as capital requirements that are associated with it. Risk management and mitigation techniques applicable to insurance companies and pension funds will also be presented such as reinsurance, securitisation, or hedging.

Learning Outcomes
On successful completion of the module, students should be able to:
- identify a firm’s key risks and provide justified recommendation on whether and how to manage these risks
- Critically evaluate the role of risk management as a driver for business development
- Develop robust analytics to estimate and improve risk exposure for businesses
- Consider the role of adaptation as a strategy for business resilience

Structure
This module will be taught in one weekly session over ten weeks

Assessment
Coursework 30%
Written exam 70%
BS1703 Energy Economics and Strategy
Module Outline

Module Leader
Name: Dr Iain Staffel
Email: i.staffell@imperial.ac.uk
Room: 13G8, 13 Prince's Gardens

Module Aims
The aim of the module is to explore how energy companies are responding to the need to provide secure, affordable, supplies of energy while minimising its environmental impact. It will emphasise the role of technology in expanding the options available to us, and the way in which technological features of different energy sectors affect their business models and economic performance.

Learning Outcomes
On successful completion of the module, students should be able to:

- understand the key factors affecting energy businesses in both the oil and gas sector and the utility (electricity and gas distribution) sector
- assess the impact of low-carbon policies on all types of energy business
- explain the trade-offs between the cost of energy supplies, their security and their environmental impact
- apply tools and concepts to an organisational setting
- understand the key factors relevant to operating in the energy sector

Structure
TBC

Assessment
Group Coursework 100%
BS1911 Climate Change and Governance
Module Outline

Module Leader
Name: Professor Martin Siegert
Email: m.siegert@imperial.ac.uk
Room: Grantham Institute, Director’s office

Module Aims
This module will analyse national climate policies. With reference to greenhouse gas emission targets, the module will use case studies from a variety of industries (energy, transport, manufacturing, construction) to assess how business is able to respond to climate legislation. It will also provide students with an awareness of the complexity of the IPCC process and climate negotiations. Using expertise from the Grantham Institute, and its external contacts in both industry and government, it will provide an understanding for how climate change legislation is formed, and the extent to which governance is then required.

Learning Outcomes
On successful completion of the module, students should be able to:

- appreciate how legislation and governance are interrelated in this field
- be aware of the business challenges involved in responding to legislation, to deliver internationally-agreed carbon emission targets
- comprehend how national government, EU and international-level agreements on climate change are formulated, and the degree to which they are legally binding
- understand how the IPCC process works, including the role of the UN and national governments
- understand how the national and international political processes have been an obstacle so far to strong action on climate change.

Structure
TBC

Assessment
Coursework 100% (subject to approval)
BS1909 Change Management & Leadership
Module Outline

Module Leader
Name: Dr Mike Tennant
Email: m.tennant@imperial.ac.uk
Room: 1536, 15 Prince's Gardens

Module Aims
Climate change poses difficult problems, possibly the most important of those being how does society change in response to a possibly radically changing environment? Society, organisations and individuals will need to change if they are to turn climate change risks into opportunities and benefit from them.

Despite the change management models available from scholarly and practitioner research, implementing change remains a difficult task.

In this module, students will develop our understanding of different aspects of organisational and individual change and transformation needed to address climate change. The following questions will be addressed: What sorts of pressures for change does society face? Why is change unavoidable? What about the timing, scope and pace of change? How does the process evolve and is there any best way of effecting change? How do we change ourselves? And, the most challenging question: How can leaders implement change successfully?

We draw upon different frameworks and models from existing empirical research to understand what factors have been found to facilitate successful change and what the associated pitfalls are. These frameworks and ideas are applied to real change scenarios through the use of case studies in class. Guest lecturers that implemented change initiatives will deliver fascinating talks.

Learning Outcomes
On successful completion of the module, students should be able to:
- demonstrate an understanding of both the content and process of societal, organisational and individual change and most importantly, the challenges involved in implementing change
- understand the theoretical change frameworks that explain how transitions from one set of structures, systems and values to another may occur
- understand the critical factors enabling and impeding the implementation of change
- explain the changes are likely to have to be implemented as a response to climate change risks and opportunities
- use case studies and group discussion to obtain insight into their own traits, habits, and behaviours and share feedback on their own and others’ interpersonal skills
Structure
TBC

Assessment
Coursework 100% (subject to approval)
BS1918 Climate Finance
Module Outline

Module Leader
Name: Dr Josue Tanaka
Email: josuetanaka@gmail.com
Room: Grantham Institute

Module Aims
This module will first provide an overall review and estimates of global climate finance requirements based on a range of sources going from global estimates to national, sectoral and project levels. We will then look at different types of climate mitigation and adaptation projects to understand how they address specific climate challenges. We will look at the range of financing instruments including both traditional and innovative instruments for large and small projects. The module will include a review of financing sources, both private and public, the project cycle and complementary activities to financing such as policy advice and technical assistance.

This course will be of particular relevance to students interested to develop a career in financing climate projects and achieving results on the ground in an international context.

Learning Outcomes
On successful completion of this module, students should be able to:

- understand the nature and scope of international climate finance requirements, opportunities and challenges
- understand the range of climate finance instruments and sources
- understand the practical steps of developing and implementing climate mitigation and adaptation projects across sectors and geographies

Structure
The module will consist of five 2-hour sessions in the summer term.

Assessment
Coursework 100%
BS1913 Sustainable Strategic Management
Module Outline

Module Leader
Name: Dr Paolo Taticchi
Email: p.taticchi@imperial.ac.uk
Room: 177 Business School Tanaka

Module Aims
The module aims to develop an understanding of strategic management and the nature of competitive advantage in the globalised business environment. It places particular emphasis on issues of sustainability and their impact on the competitive environment and strategic advantage.

Learning Outcomes
On successful completion of this module, students should be able to:
- understand the key factors related to corporate sustainability and strategic management
- apply tools and concepts to develop and analyse sustainable strategies

Structure
The module will consist of five 2-hour sessions in the summer term.

Assessment
Coursework 100%
REPORT MODULE OUTLINES
BS1914 Consulting Project
Module Outline

Module Leader
Name: Dr Mirabelle Muûls
Email: m.muuls@imperial.ac.uk
Room: Grantham Institute

Module Aims
The purpose of this module is to develop your managerial and consulting capabilities by applying your acquired theoretical knowledge, analytical and managerial skills to a real business situation. The focus is on managing a consulting project from inception to completion, drawing on your knowledge from other modules you have completed on the programme and combine it with your competences and skills developed through the professional development programme.

Module Objectives

Knowledge Objectives
During the module, participants should develop the ability to:
- analyse a real consultancy problem
- apply their knowledge from other modules to solve a real-life consultancy problem
- integrate theoretical knowledge with practical skills relevant to an industry

Skill Objectives
Participants should develop the ability to:
- conduct research and analysis at both the industry- and firm-levels together with evaluating the implications of this analysis
- analyse and interpret real-life business problems
- deliver value through the project to the client

Learning Outcomes
By the end of this module participants will develop:
- problem solving skills in an applied business situation
- consulting competences in relation to working with and managing a client
- project management skills to deliver to a pre-assigned set of requirements and within an external time frame
- report writing skills to produce a report useable to managers and industry practitioners

Structure
The project options will be announced at the latest in the summer term and students will undertake the major intensive consultancy task in June/July/August. The final report will be submitted by mid-August. Students will present their results and recommendations to a panel of judges and clients.
Assessment
Group Coursework 100%
This will consist of a 3,000 word project (50%) and a group presentation (50%).
BS1915 Work Placement
Module Outline

Module Leader
Name: Dr Mirabelle Muûls
Email: m.muuls@imperial.ac.uk
Room: Grantham Institute

Module Aims
Work Placements contribute to the development of the student’s analytical potential by applying problem solving techniques to a challenging business situation in which the student is fully immersed. The focus is on developing the students’ skills in managing real business tasks in one specific business context, drawing on the knowledge and skills achieved in other modules of the MSc Climate Change, Management and Finance programme. The module will give students who have had little or no exposure to the corporate environment, the opportunity to experience and operate in a real world situation.

Module Objectives
Knowledge Objectives
Participants should develop the ability to:
- analyse real business related problems
- apply their knowledge from other modules to solve real business tasks
- integrate theoretical knowledge with practical skills relevant to industry

Skill Objectives
Participants should develop the ability to:
- carry out business related tasks and analysis and evaluate their results
- analyse and interpret real world business problems
- manage line manager, peer and client expectations
- deliver value through the completion of tasks to the organisation they work for

Learning Outcomes
Upon completion of the module, participants will have developed:
- problem solving skills in a business situation
- analytical skills to select and use relevant information for a given task
- communication / presentation skills to produce a report
- project management skills to deliver to a pre-assigned set of requirements, external time frame and the highest ethical values

Structure
Those students who choose to take this module must secure their own work placements and submit details of their work placement to the Programme Team by the end of April. The Programme Director, in consultation with the Careers and Development Team, will vet all
proposals by evaluating if the work placement is relevant to the programme and its learning outcomes and is carried out by a credible organisation.

**Assessment**
Individual portfolio containing sufficient evidence and self-evaluation of the achievement of each learning outcome.
BS1917 Individual CCMF Report
Module Outline

Module Leader
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Room: Grantham Institute

Module Aims
The report requires students to conduct independent research and write an individual report/essay on a topic of their own choice that relates to one of the themes reflecting the overall programme content, which includes the Work Placement or Consulting Project. The aim of the module is to further develop students' theoretical understanding of a particular topic of their interest through advancing their research and professional writing skills necessary for business success. Students will be supported with additional workshops throughout the year in relation to developing both their research and writing skills.

Module Objectives

Knowledge Objectives
Participants should develop the ability to:
- apply and extend their knowledge acquired during other modules throughout the year to analyse a theme related to the programme’s content
- understand and contextualise theories and frameworks within the broader academic literature

Skill Objectives
Participants should develop the ability to:
- carry out, interpret, evaluate and synthesise existing literature related to a business/managerial theme
- effectively express in writing their opinion and critical evaluation on a business/managerial theme
- present their ideas to both inform and persuade an audience on a particular topic
- carry out research and other tasks unsupervised, managing time effectively throughout

Learning Outcomes
Upon completion of the module, participants will have developed:
- problem solving skills in a business situation
- analytical skills to select and use relevant information for a given task
- communication / presentation skills to produce a report
- project management skills to deliver to a pre-assigned set of requirements, external time frame and the highest ethical values
Structure
Students will conduct research and write their Report unsupervised during the second half of August.

Assessment
Coursework: 100% Individual Report (4000 words)
Report Due: Monday, 4 September, 2017

Reading list
There is no recommended text, although books which might be useful include the following: