Overview of the Programme

Programme Director: George Magoulas (gmagoulas@dc.dcs.bbk.ac.uk)
Programme Administrator: Liam Simmonds (pgadmin@dc.dcs.bbk.ac.uk)
Admissions Tutor: George Magoulas (gmagoulas@dc.dcs.bbk.ac.uk)
Projects Co-ordinator: Oded Lachish (oded@dc.dcs.bbk.ac.uk)

The MRes in Computer Science is an advanced postgraduate programme of study focusing on key areas of expertise and research specialisation within the Department of Computer Science and Information Systems:
- Information Management and Web Technologies
- Computational Intelligence

Students who complete this MRes will have gained specialised knowledge in their chosen area which they will be able to use in analysis of problems arising in that area, evaluation and application of technologies, and research into new technologies. In addition, they will have gained the appropriate foundations for continuing into an MPhil/PhD programme.

Full-time students undertake a one-year supervised research project, plus a research methods module, and also take 3 further taught modules. Part-time students undertake the research project, research methods module and 3 other taught modules over two years. Students should select modules appropriate to their chosen research area: such selections are subject to approval by the Programme Director.

In addition to the Research Methods (RM) module, students select their modules from the following:
- Advances in Data Management (ADM)
- Cloud Computing (CC)
- Component-Based Software Development (CBSD)
- Computational Intelligence (CI)
- Data Warehousing and Data Mining (DWDM)
- Fundamentals of Concurrent Systems (FCS)
- Information Retrieval and Organisation (IR)
- Intelligent Technologies (IT)
- Internet and Web Technologies (IWT)
- Mobile and Ubiquitous Computing (MUC)
- Search Engines and Web Navigation (SEWN)
- Semantic Web (SW)

The information in this handbook is specific to the MRes Computer Science. Some of the modules use a Virtual Learning Environment called Moodle (moodle.bbk.ac.uk).

It is your responsibility to familiarise yourself with the contents of this Handbook as well as the website and Moodle, and to consult the website and Moodle on a regular basis since additional information will be posted there during the year. You should also read your Departmental and College email on a daily basis.
Dates and Timetables

The term dates for the academic year 2014/13 are as follows:

- **Autumn**: 29 September 2014 – 12 December 2014
- **Spring**: 5 January 2015 – 20 March 2015
- **Summer**: 20 April 2015 – 3 July 2015

Introductory talks for students will be held at:

6pm, Tuesday 23 September

First lectures for modules are as follows:

- **Day time**: 2pm, Monday 29 September
- **Evening**: 6pm, Monday 29 September

The taught programme covers two terms of approximately eleven weeks each. The summer term is devoted to exams and the research project. The final project report is handed in by full-time and part-time year 2 students in September. An interim project report is handed in by full-time and part-time year 1 students in March. Part-time year 1 students submit a further progress report on their project in September.

You will be notified nearer the time of the room in which the introductory talks will take place. For new students, these will include a short hands-on introduction to the Department’s computer system. If you are not able to attend the introductory talk, please arrive early for the first lecture and speak to the Programme Administrator in Room 263 on the second floor of the extension to the Birkbeck main building.

College holiday closing

- **Christmas and New Year Closure**: closing on Tuesday 23 December 2014 at 6pm; re-opening on Monday 5 January 2015 at 9am.
- **Easter closure**: closing on Wednesday 1 April 2015 at 6pm; re-opening on Wednesday 8 April 2015 at 9am.
Lecture timetables

Module abbreviations used in the following timetables are given in the section **Overview of the Programme** above. The timetable for Research Methods (RM), which must be taken by all students in their first year, will be at [http://www.dcs.bbk.ac.uk/research/research_methods.html](http://www.dcs.bbk.ac.uk/research/research_methods.html) (dates, times and room to be confirmed). Timetables are given below for both full-time and part-time students. Room locations are shown on the map at: [http://www.bbk.ac.uk/mybirkbeck/guides/help/class-information/teaching-map.pdf](http://www.bbk.ac.uk/mybirkbeck/guides/help/class-information/teaching-map.pdf)

For example, rooms with prefix MAL are located in the main Birkbeck building in Malet Street (1 on map); SOP is the School of Pharmacy.

### Timetable 2014/15

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Note that some modules are offered in the evening on alternate years only. Part-time students in their first year of study wishing to take MUC, or CI must do so 2014/15. None of these 2 modules will be offered in the evening in the following year (see below an indicative timetable for 2015/16). **Part-time students must select three further modules, in addition to RM, in such a way as to ensure that they can complete them in 2 years.**

### Indicative Timetable 2015/16

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**Student Support**

Every student is allocated a **personal tutor** in the first weeks of the programme. The personal tutor is someone students can contact to discuss any problems of a non-academic nature. These may relate to special needs or personal problems that may affect the student’s academic performance. The Department also has a disability officer, Jenny Pedler [mailto:jenny@cs.bbk.ac.uk](mailto:jenny@cs.bbk.ac.uk) whom students can contact.

Academic problems should first be addressed to the lecturer concerned. If the problem is not resolved or it does not relate to a specific module, then the Programme Director should be contacted. Details of the College’s “Student Dispute Resolution Procedure” is linked from the My Birkbeck webpages at [http://www.bbk.ac.uk/mybirkbeck/aig](http://www.bbk.ac.uk/mybirkbeck/aig).

Students on each programme elect **Class Representatives** from amongst themselves early in the academic year. Class Reps provide a point of contact with the Department for student feedback on modules and other aspects of the programme. They can make the Department aware of students’ views both in respect of any problems students are experiencing as well as positive points they want to make.

While Class Reps can raise matters with the Programme Director at any time, they also attend **Staff-Student Exchange meetings** in each of the autumn and spring terms at which students’ views on any aspect of the Programme can be raised with the Programme Director. These meetings are minuted and the minutes made available on the Department intranet. Students should make sure that their Class Reps are aware of any matters which they wish to be raised at these meetings.

The **Birkbeck Students’ Union** provides help and advice to students – information about their services can be found linked from the Students’ Union webpage: [http://www.bbk.ac.uk/su/](http://www.bbk.ac.uk/su/)

Financial support advice is provided by the **Student Financial Support Office** (tel: 020 7631 6362), 12-5.30pm Monday to Thursday. At Birkbeck, we believe that lack of finances should not be a barrier to you studying so we provide financial support packages and bursaries. Information on financial support is available online at: [http://www.bbk.ac.uk/mybirkbeck/finance/studentfinance](http://www.bbk.ac.uk/mybirkbeck/finance/studentfinance)
Availability of Optional Modules

Optional module availability is subject to timetabling constraints and student demand. In the event that an optional module is over-subscribed, available places will be allocated on a first-come, first-served basis determined by the date you return your module choice form to the Programme Administrator. If an optional module is under-subscribed it may not run at all.

Module Descriptions

Lectures aim to introduce the key ideas of each module. The specific objectives of each module and the principal readings are circulated at the start of the term. The reading lists for individual modules given below are only indicative. Lecturers will specify, usually at the first lecture, whether or not books need to be purchased for particular modules. Independent study is a key learning objective of the programme.

Most modules have dedicated web pages that provide links to relevant online literature. Depending on the nature of the material, some lecturers use ‘lecture outlines’ to support their teaching and may even distribute these outlines via their web pages. However, there is no expectation that written notes will be provided for the modules.

Students can also contact lecturers outside the classroom to discuss the material. They can meet the lecturers during scheduled ‘office hours’ or can contact them via email either to discuss a problem or to make an appointment. Lecturers’ contact details are given on the Department web site and in the Department’s Student Handbook.

Students are expected to attend all lectures. Any student who decides to withdraw from the programme should inform the Programme Director, in writing or by email. Students who simply stop turning up for lectures without formally withdrawing from the programme will still be held liable for fees.

A number of modules require students to submit coursework as part of the assessment. Such coursework must always be the students’ own work, except where explicitly noted. Students are required to confirm in writing or via email that each item of coursework submitted is indeed their own work. The Department and College have strict guidelines and penalties associated with plagiarism, and routinely submit students’ work to plagiarism detection services. More details are given in the section Plagiarism of this Handbook.
Advances in Data Management (ADM)

Aims of the Module

To study advanced aspects of database management and recent advances in data management technologies in three major directions: performance, distribution of data and heterogeneity of data.

The module examines the technologies underlying modern database management systems. It studies advanced aspects of query processing, transaction management, distributed data management, and recent developments in web data, “big data” and alternative database architectures.

Staff: Alex Poulovassilis

Assessment: By 2-hour written examination and practical coursework. The final module mark will be the exam mark attained. A minimum mark of 40% on the practical coursework component will be necessary in order to pass the module overall.

Module URL: http://moodle.bbk.ac.uk/

Pre-requisites and co-requisites to the module

Prerequisites: A first module in Database Systems (e.g. as taught in a typical UK undergraduate degree in computer science)

Syllabus

- Review of the fundamental principles of modern database management systems, relational databases and SQL.
- Query processing and query optimisation.
- Transaction management: ACID properties, concurrency control, recovery.
- Beyond records and objects: stored procedures and functions, triggers, semantic technologies.
- Distributed databases: data fragmentation and replication, distributed query processing, distributed transaction management.
- Heterogeneous data integration.
- XML data management.
- Linked Open Data.
- Parallel databases.
- Big data and NoSQL/NewSQL stores.

Background Reading

5. Research papers will be distributed to students; students will also be directed to Web resources on the subject.
Cloud Computing (CC)

Aims of the Module

This module aims to introduce back-end cloud computing techniques for processing “big data” (tera-bytes/petabytes) and developing scalable systems (with up to millions of users). We focus mostly on MapReduce, which is presently the most accessible and practical means of computing for “Web-scale” problems, but will discuss other techniques as well.

Students in this module will learn to understand the emerging area of cloud computing and how it relates to traditional models of computing, and gain competence in MapReduce as a programming model for distributed processing of big data.

Staff: Dell Zhang

Assessment: By 2-hour written examination and practical coursework, weighting 80% and 20% respectively.

Module URL: http://www.dcs.bbk.ac.uk/~dell/teaching/cc/

Pre-requisites and co-requisites to the module

Good knowledge of Java programming is necessary.

Syllabus

- Introduction to Cloud Computing
- Cloud Computing Technologies and Types
- Big Data
- MapReduce and Hadoop
- Running Hadoop in the Cloud (Practical Lab Class)
- Developing MapReduce Programs
- Data Management in the Cloud
- Information Retrieval in the Cloud
- Link Analysis in the Cloud
- Beyond MapReduce
- Selected Case Studies
- Advanced Topics in Cloud Computing

Reading

2. J. Lin and C. Dyer, Data-Intensive Text Processing with MapReduce, Morgan and Claypool, 2010. Extensive use is made of other relevant book chapters and research papers that are distributed or provided online.
Component-Based Software Development (CBSD)

Aims of the Module

This module introduces the theory and practice associated with implementing large-scale distributed information systems in heterogeneous environments. The student will develop the technical knowledge necessary to analyse the scalability and interoperability problems associated with large-scale heterogeneous systems and will experience the design and implementation of enterprise-level computer applications. Industry standard frameworks such as Java Enterprise Edition (JEE), Spring, etc. will be explored utilizing practical workshops. The development of web services will also be discussed through the use of standards such as XML, SOAP, WSDL and UDDI. How web services can be used to implement a Service Oriented Architecture (SOA) will be described.

Staff: Keith Mannock

Assessment: By 2-hour written examination and practical coursework. The written examination has a weighting of 75% and the coursework has a weighting of 25% of the final mark.

Module URL: http://moodle.bbk.ac.uk/

Pre-requisites and co-requisites to the module

No formal pre-requisite or co-requisite module, but a working knowledge of Java is essential.

Syllabus

• Introduction to Component Based Software
• Java approaches to n-tier architectures (JEE, Spring, etc.)
• Enterprise Computing in the real world (Case Study)
• Message-Oriented Middleware (RabbitMQ, etc.)
• Virtualization and Cloud Computing
• Design Patterns and Enterprise Architectures
• The .NET model for distributed computing
• Persistence layers
• User Interfaces
• Web Services
• RESTful services

Indicative Reading

Computational Intelligence (CI)

Aims of the Module

The module aims to cover advanced computational methods for intelligent data-driven modelling, decision making and complex problem solving. Using a combination of lectures and lab work, it goes beyond the basics of the various intelligent paradigms giving students extended knowledge of advanced features of various methods at the theoretical and practical levels.

Staff: George Magoulas

Assessment: 2-hour written examination and practical coursework (mini project), weighting 80% and 20% respectively.

Module URL: http://moodle.bbk.ac.uk/ (ITS user name and password are required).

Pre-requisites and co-requisites to the module

No specific module is pre- or co- requisite but knowledge of mathematical foundations (linear algebra, vectors, matrices, functions and graphs, calculus, gradients, trigonometry, statistics and probability), and data structures and algorithms, as taught in a typical undergraduate degree in computer science or engineering, is essential. In the coursework students are asked to use any programming language/tool they wish (MATLAB is used in the labs) to solve a practical real world problem.

Syllabus

- Feedforward and Recurrent Neural Network Architectures
- Supervised Learning
- Unsupervised Learning and Clustering
- Feature Selection
- Generalisation
- Particle Swarm Optimisation
- Evolutionary Algorithms

Background Reading

3. A. Lazinica (2009), Particle Swarm Optimization. Available online at: http://www.intechopen.com/books/particle_swarm_optimization
Data Warehousing and Data Mining (DWDM)

Aims of the Module

To study advanced aspects of data warehousing and data mining, encompassing the principles, research results and commercial application of the technologies.

This module covers the organisation, analysis and mining of large data sets to support business intelligence applications. Students study the principles and commercial application of the technologies, as well as research results and emerging architectures underpinning the analysis and mining of "big data".

Staff: Nigel Martin

Assessment: By 2-hour written examination and practical coursework. The final module mark will be the exam mark attained. A minimum mark of 40% on the practical coursework component will be necessary in order to pass the module overall.

Module URL: http://www.dcs.bbk.ac.uk/~nigel/teaching/dwdm/

Pre-requisites and co-requisites to the module

Prerequisites: A first module in Database Systems (e.g. as taught in a typical UK undergraduate degree in computer science)

Syllabus

• Review of database technology underpinning data warehousing and data mining.
• Data warehouse logical design: star schemas, fact tables, dimensions, snowflake schemas, dimension hierarchies, data marts.
• OLAP architectures, OLAP operations. SQL extensions for OLAP.
• Data warehouse physical design: partitioning, parallelism, compression, indexes, materialized views, column stores.
• Data warehouse construction: data extraction, transformation, loading and refreshing. Data warehouse support in Oracle. Warehouse metadata.
• Specialized warehouse architectures. MapReduce and warehouse architectures: Hive.
• Data mining approaches and applications. Data mining technologies and implementations. Techniques for mining large databases.
• Data mining support in commercial systems. Data mining standards.
• Research trends in data warehousing and data mining.

Reading

5. Research papers will be distributed to students; students will also be directed to Web resources on the subject.
Fundamentals of Concurrent Systems (FCS)

Aims of the Module

To study basics of concurrency (including interprocess communication) and a formal approach to modelling the behaviour of concurrent programs (including specification and verification).

In this module we will concentrate on concurrency (arising by the use of multithreaded programs or distributed computations). We will introduce a formal approach (labelled transition systems) for modelling concurrent programs and tools (modal and temporal logics) to reason about their behaviours. Applications include software engineering (formal specification and verification of concurrent programs) and distributed systems (reasoning about knowledge in multi-agent systems).

Staff: Szabolcs Mikulas

Assessment: By 2-hour written examination and compulsory homework. The final module mark will be the exam mark attained.

Module URL: http://www.dcs.bbk.ac.uk/~szabolcs/log.html

Pre-requisites and co-requisites to the module
Familiarity with the basics of formal reasoning and algorithms (e.g. as taught in a typical UK undergraduate degree in computer science)

Syllabus

- Concurrency mechanisms (semaphores, monitors, software solutions, message passing)
- Modelling concurrent programs (labelled transition systems)
- Basics of propositional logic (syntax, semantics, decidability)
- Basics of modal and temporal logics (syntax, semantics)
- Temporal logic as a specification language
- Model checking for temporal logic
- Verification using model checking
- Rule-based verification
- Other applications of modal/temporal logic (multi-agent systems, knowledge representation) - depending on student interest

Reading

Information Retrieval and Organisation (IR)

Aims of the Module

Due to the explosive growth of digital information in recent years, modern Information Retrieval (IR) systems such as search engines have become more and more important in almost everyone's work and life (e.g. see the phenomenal rise of Google). IR research and development are one of the hottest research areas in academia as well as industry.

The aim of this module is to introduce modern IR concepts and techniques, from basic text indexing to advanced text mining. Both theoretical and practical aspects of IR systems will be presented and the most recent issues in the field of IR will be discussed. This will give students an insight into how modern search engines work and are developed.

Staff: Dell Zhang and Mark Levene

Assessment: By 2-hour written examination and practical coursework, weighting 80% and 20% respectively.

Module URL: http://www.dcs.bbk.ac.uk/~dell/teaching/ir/

Pre-requisites and co-requisites to the module

None.

Syllabus

- Boolean Retrieval
- The Term Vocabulary & Postings Lists
- Dictionaries & Tolerant Retrieval
- Index Construction and Compression
- Scoring, Term Weighting & the Vector Space Model
- Computing Scores in A Complete Search System
- Evaluation in Information Retrieval, Relevance Feedback & Query Expansion
- Probabilistic Information Retrieval
- Language Models for Information Retrieval
- Text Classification, Naive Bayes and Vector Space Classification
- Flat and Hierarchical Clustering
- Advanced Topics in IR

Reading

Intelligent Technologies (IT)

Aims of the Module

The module covers computational algorithms for intelligent information management, decision making and complex problem solving. It provides an introduction to technologies such as knowledge-based systems, artificial neural networks, fuzzy logic, evolutionary computation, hybrid systems showing how such technologies work to support the development of modern intelligent applications. The module aims to cover fundamental technologies of intelligent systems, illustrate what technologies are useful for and how systems that employ these technologies are designed and built.

Staff: George Magoulas

Assessment: By 2-hour written examination.

Module URL: http://moodle.bbk.ac.uk/ (ITS user name and password are required).

Pre-requisites and co-requisites to the module

No formal pre-requisite or co-requisite module but knowledge of mathematical concepts such as those presented in the website (http://www.gcseguide.co.uk/mathsgcseguide.htm) is essential.

Syllabus

- Knowledge-based systems
- Rule-based systems
- Fuzzy Systems
- Uncertainly Management
- Neural Computing
- Evolutionary Computing
- Hybrid Approaches

Reading


Research papers which will be distributed to the students; students will also be directed to Web resources on the subject.
Internet and Web Technologies (IWT)

Aims of the Module

To provide students with an understanding of how network protocols work, particularly those used on the Internet, and the ability to present and manipulate information on the World Wide Web, with an emphasis on XML.

Staff: Peter Wood

Assessment: By 2-hour written examination and coursework exercises, weighting 80% and 20% respectively.

Module URL: http://www.dcs.bbk.ac.uk/~ptw/teaching/IWT.html

Pre-requisites and co-requisites to the module

The ability to program is essential. This need not be in an object-oriented language, although that ability would be helpful. Some basic knowledge of HTML and databases, in particular the relational model and SQL, is assumed; if this is lacking, however, it can be obtained through self-study of online resources.

Syllabus

- Introduction to the Internet and its applications
- Web languages (e.g., HTML, XHTML, XML)
- Languages for defining Web document types (e.g. DTDs)
- Web query and transformation languages (e.g. XPath, XSLT)
- Client-side processing (e.g. using Javascript, DOM)
- Server-side processing (e.g. using CGI, ASP, JSP)
- The transport layer (e.g., TCP, UDP)
- The network layer (e.g., IP, ICMP)
- The link layer (e.g., Ethernet, ARP)

Reading

Mobile and Ubiquitous Computing (MUC)

Aims of the Module

Students taking this module will:

- study the novel aspects of mobile, ubiquitous and pervasive computing systems
- study the principles, research problems and applications of the Internet of Things
- acquire a range of design skills for software development in Android
- acquire systems development experience with mobile and ubiquitous computing technologies
- help students develop self-study skills so that they can keep up with the rapidly changing technologies, tools and techniques in the area

Staff: George Roussos

Assessment: By 2-hour written examination and by practical project. The written examination will have a weighting of 80% and the project a weighting of 20% of the final mark.

Module URL: http://www.dcs.bbk.ac.uk/~gr/muc/

Pre-requisites and co-requisites to the module

Prerequisites: a first course in networks and a first course in software engineering (e.g. as taught in a typical UK undergraduate degree in computer science). Significant experience in Java programming including networking, data access and concurrent programming techniques.

Syllabus

- Wireless and mobile networks
- Routing and mobility aspects of IP networks
- Smartphone components
- Radio Frequency Identification (RFID) and the IoT
- Processing sensor streams
- Location sensing technologies
- Privacy in mobile location sensing systems
- Programming with Android

Reading

3. A. La Marca and E. de Lara, *Location Systems: An Introduction to the Technology Behind Oca-
Search Engines and Web Navigation (SEWN)

Aims of the Module

To familiarize the student with the main technologies that underpin the World Wide Web (WWW), with an emphasis on search engines and web navigation, which provide us with a variety of tools that assist us in finding our way around the web.

The module has three main strands: (i) technical foundations, (ii) core search and navigation technologies and (iii) emerging technologies. An important aim of the module is to enable the student to experiment with the various tools and to understand the convergence of these technologies within the WWW.

Staff: Mark Levene

Assessment: By 2-hour written examination and weekly practical coursework. The written examination will have a weighting of 80% and the coursework a weighting of 20% of the final mark.

Module URL: http://www.dcs.bbk.ac.uk/~mark/webtech.html

Pre-requisites and co-requisites to the module

Experience with a modern programming language

Syllabus

• How the WWW operates - some history and terminology
• The structure of the web
• Link analysis on the web
• Searching the web
• Navigating the web
• Web usage mining
• Recommender systems and collaborative filtering
• The mobile web

Reading

Semantic Web (SW)

Aims of the Module

To introduce the theoretical foundations of the Semantic Web, which brings semantics to the (syntactic) Internet, and to provide students both with theoretical and practical skills of building ontologies.

Staff: Michael Zakharyaschev

Assessment: By 2-hour written examination and by practical coursework. The written examination will have a weighting of 80% and the coursework a weighting of 20% of the final mark.

Module URL: http://www.dcs.bbk.ac.uk/~michael/sw/sw.html

Pre-requisites and co-requisites to the module

None

Syllabus

- Requirements for ontology languages. From RDFS to OWL. Three species of OWL. OWL ontologies.
- Ontology engineering.
- Reasoning with OWL. Open vs closed worlds. Constructors.
- Description logics.
- Reasoning with description logics. Tableau algorithms.
- OWL as a description logic.
- Lab sessions: OWL and the Protege/OWL tools.

Reading

Module Evaluation

As part of our quality assurance process, we ask students to anonymously evaluate programmes each term by completing module questionnaires. Students’ feedback helps us to further develop the course and the individual modules.

Typically, questionnaires include two parts. In the first part students are asked to rate several aspects of the modules, while in the second part to answer some open ended questions. An example questionnaire is presented below.

Course Unit Questionnaire

This questionnaire is part of our continuing effort at Birkbeck to improve courses and teaching, and to promote learning. We value your anonymous completion of this form. We will take into account your feedback in the further development of this course unit/module, and we will report to you on any action taken.

Please answer all the questions that apply to you by ticking the category which best reflects your view. Overleaf there is space for you to provide feedback in your own words. If you are from a disadvantaged or minority group, please also consider what follows in the light of your specific needs/circumstances.

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<td>2.</td>
<td>The unit was well organised.</td>
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<td>3.</td>
<td>The objectives of the unit were made clear.</td>
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<tr>
<td>4.</td>
<td>The unit has enabled me to meet its stated objectives.</td>
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<tr>
<td>5.</td>
<td>The pacing of the unit was good.</td>
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<tr>
<td>6.</td>
<td>The information provided on this unit (reading list, unit outlines, handouts, etc.) was useful.</td>
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<tr>
<td>7.</td>
<td>The Library has the books and resources I needed for this unit.</td>
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<tr>
<td>8.</td>
<td>The computing facilities I needed for this unit were satisfactory.</td>
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<tr>
<td>9.</td>
<td>The teaching rooms for this unit were fit for their purpose.</td>
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<tr>
<td>10.</td>
<td>The unit helped me to think critically.</td>
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<tr>
<td>11.</td>
<td>I have learnt skills that I could apply elsewhere.</td>
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<tr>
<td>12.</td>
<td>The unit was intellectually challenging.</td>
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<tr>
<td>13.</td>
<td>The unit has given me a good understanding of the subject.</td>
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<tr>
<td>14.</td>
<td>The unit has developed my interest in the subject.</td>
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<tr>
<td>15.</td>
<td>The size of the class was appropriate for effective learning.</td>
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<tr>
<td>16.</td>
<td>The method(s) of assessment were appropriate to the objectives of this unit.</td>
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<tr>
<td>17.</td>
<td>Overall, I am very satisfied with this learning experience.</td>
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</tr>
</tbody>
</table>
Open-ended comments

What did you like about this unit/module?

How could this unit/module be improved?

Please use this space for any further comments you would like to make about the unit/module.

Thank you for taking the time to complete this questionnaire.
Project Guidelines

Each student is required to undertake an individual project, under the supervision of two staff members, which counts 120 credits. Students will have submitted outline research proposals with their applications, and two staff members will have considered the outline proposal at that stage and agreed to act as supervisors when the offer of a place is made. Students develop their outline research proposal in discussion with their supervisors in the first weeks of the programme and submit an agreed research proposal as detailed below. Changes of supervisors are subject to approval by the Programme Director. The Research Project is judged on project report of about 20,000 words (maximum 30,000 words) plus related technical submissions, and the project presentation. The presentation contributes 10% to the project mark, and the report 90%.

Students are responsible for maintaining contact with their supervisors during the project. Since notions of optimal interaction between student and supervisor differ, it is best to agree in advance what form the interaction will take. Students are entitled to expect regular exchange of emails, regular meetings and feedback on drafts of the project report, provided these are submitted to supervisors in reasonable time. If supervision does not meet the agreed criteria, the Programme Director should be contacted.

Further information on undertaking projects and preparing project reports will be distributed during the year and published on the MRes project module on Moodle (moodle.bbk.ac.uk).

Aims of the Project

The main aims of the project are to offer students the opportunity to:

- develop a systematic understanding and critical awareness of an agreed problem as described in a project proposal form
- plan and execute a major piece of programming work appropriate to the MRes programme
- critically present existing approaches in the problem area, place their own approach in the wider area and evaluate their contribution
- gain experience in communicating complex ideas/concepts and approaches/techniques to others by writing a comprehensive, self-contained report.

The Project Proposal

A student intending to submit a project report in a particular year must develop a project proposal and submit it for assessment together with a project proposal form by the deadline noted below.

A one-page research proposal, agreed after discussion with the two supervisors, must be submitted for approval by the examiners by the deadline specified. This proposal must be submitted to Moodle and a copy emailed to the Programme Administrator. A standard form for project proposals is available on the Moodle.

The project proposal is an important part of the project module. It should:

- Identify the objectives of the project.
- Describe the problem that the project will address.
- Present background research on the problem and possible solutions.
- Identify an appropriate approach/methodology which will be followed during the project.
- Include a project plan which shows how the project objectives can be met within the required timescale.

The accompanying project proposal form is used to record information about the project and sets out the marking scheme which will be used by examiners. It is also used to specify College hardware or
software that you hope to use in your project. This is particularly important if you intend to use something out of the ordinary. It enables the Systems Group to estimate the probable demand on their resources and to alert supervisors if there is likely to be a problem with this.

Students may choose to involve outside organisations, such as industrial or commercial companies (large or small), hospitals, schools, charities and so on, or their full-time employer. While this kind of “real-world” project can provide valuable experience for students, they may carry a greater element of risk than “in-house” projects and need to be approached with more care. Students who prefer to work on their own project idea or an idea proposed by an external organisation should consult the College's guidance with regards to the ownership of inventions at Birkbeck (http://staff.bbk.ac.uk/research/downloads/invention-ownership-guidance.docx).

**Project Submissions and Deadlines**

Students must submit a one-page research proposal (minimum requirement) together with the standard form for project proposals. Submission is done online using Moodle and a copy should be emailed to the Programme administrator.

Full-time and first year part-time students should submit an interim project report towards the end of the Spring term. This covers the research proposal, research plan being pursued, review of the research literature, and progress on work carried out so far. A significant part of the interim report would normally be a preliminary review of the state of the art in the chosen area of research. Students also give a 30-minute seminar (20-minute presentation, with 10 minutes for questions) on their project work. The interim report and seminar should demonstrate appropriate use of methods discussed on the Research Methods module and forms the assessment for that module.

Part-time students must submit a further progress report at the end of the first year. This consists of a progress report on work carried out so far, and plans for completion of the research project.

Project proposals and reports are examined on only one occasion each year with deadlines as shown below. The rules concerning late submission of the project proposal and project report are the same as for coursework.

The following table summarises the deadlines:

<table>
<thead>
<tr>
<th>Submission of project proposal and form</th>
<th>Monday 3 November 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission of interim project report</td>
<td>Monday 9 March 2015</td>
</tr>
<tr>
<td>Interim project seminars</td>
<td>Tuesday 24 March 2015</td>
</tr>
<tr>
<td>Submission of final project report</td>
<td>Monday 14 September 2015</td>
</tr>
<tr>
<td>Final project seminars</td>
<td>Thursday 22 September 2015</td>
</tr>
<tr>
<td>Submission of year 1 progress report</td>
<td>Friday 25 September 2015</td>
</tr>
</tbody>
</table>

The proposal and proposal form must be submitted using the Virtual Learning Environment (VLE) Moodle (moodle.bbk.ac.uk) -ITS user name and password are required. A copy should be emailed to the Programme Administrator by the deadline.

The project report must be submitted using the Virtual Learning Environment (VLE) Moodle (moodle.bbk.ac.uk) -ITS user name and password are required. Two hard copies must also be submitted to the Programme Administrator by the deadline.

The proposal and report will be submitted to the JISC Plagiarism Detection Service.
Assessment Criteria

In all cases, the project report must contain:

- A critical survey of the research literature in the area of research undertaken by the student,
- An account of the student’s own work during the project. This may consist of new theoretical research results, or an implementation and critical evaluation of an existing research approach, or a combination of these.

To pass a project the markers assess whether the report meets the following criteria:

- **Background, research, and presentation of problem**: the report specifies a suitable problem, and discusses its requirements. It reviews the potential approaches and critically evaluates them.
- **Approach, design, and implementation**: The approach that the student used to address the problem or questions is described. A suitable design methodology is chosen and there is an attempt to justify it. The key stages of the approach/methodology and the implementation of the approach are explained.
- **Testing, results, analysis, and critical evaluation**: The report attempts to provide a clear and justified reflection upon the contribution and its limitations. It discusses how the software, algorithms or theoretical approach developed meet the specified requirements, and any problems identified.
- **Presentation of report, documentation**: The report is coherent in its style and structure. It communicates the student's contribution to the reader.
- **Any other aspect of special relevance for this project**.

For a distinction, a student would have to attempt a challenging project and to gain a high grade under each of the above headings. To award a distinction the markers assess the report according to the following criteria:

- **Background, research, and presentation of problem**: A problem is specified, and the potential approaches are reviewed and critically evaluated. The report clearly outlines the problem, its context and the theoretical/technical/user requirements. It demonstrates that the student clearly understands the relevant research material and leads logically to a solution of the problem.
- **Approach, design, and implementation**: The report provides a clear justification of the research approach. It discusses the various design methodologies in an authoritative way and provides a clear justification for adopting a particular one. It presents the various stages of the approach/methodology and implementation in detail and executes them to a high standard.
- **Testing, results, analysis, and critical evaluation**: The solution described demonstrates real insight into the problem/research questions. There is clear and justified reflection upon the contribution and its limitations. The key results are accurately analysed and stated and their relevance is explained. The author critically assesses the results and draws relevant conclusions from the study. The report should demonstrate that any software developed meets the specified requirements, and is shown to be reliable.
- **Presentation of report, documentation**: Complex issues are explained clearly and concisely to a specialist audience. The content of the report is well organised and structured in a way that demonstrates the links between the concepts presented. The report demonstrates that the student clearly understands the relevant research material and leads logically to a solution of the problem. The author uses various resources and cites most of the relevant sources using the appropriate consistent referencing style. The report is of professional quality, so there are very few, ideally no, typographic errors.
Work that meets some, but not all, of the criteria for distinction may be considered for a merit, at the discretion of the markers. A merit might be awarded for a respectable, if only partially successful, attempt at a challenging project, or for a less ambitious project carried out, and written up, to a high standard.

The separate examiners grade the project report independently and then meet to arrive at an agreed grade. In addition, students might be called upon to make a presentation of their projects to a sub-committee of the Examination Board to demonstrate their grasp of the material.

Staff Research Interests

Staff carry out their research within two main research groups in the Department: Information Management and Web Technologies and Computational Intelligence. The London Knowledge Lab is a multi-disciplinary research centre which brings together computer scientists from Birkbeck and social scientists from the Institute of Education to explore the ways in which digital technologies and new media will shape the future of learning and knowledge. In addition, there are informal interest groups which emerge and evolve over time within and between the main research groups, for example in search engine technology, sensor networks, semantic web, computer vision, cluster analysis, adaptive systems and learning environments.

The research interests of individual staff members are as follows.

- Andrea Cali: semantic information integration, logics and databases, ontologies and databases with emphasis on query answering and optimisation, Deep Web.
- Trevor Fenner: Algorithms and data structures; combinatorial and probabilistic methods; graph theory; web models; programming languages; life sciences informatics.
- Sergio Gutierrez: learning technologies, complex systems and swarm intelligence behaviours.
- Tingting Han: formal verification and synthesis of probabilistic systems, and its applications.
- Roman Kontchakov: semantic data integration and ontology-based data access, ontology languages and description logics, the Semantic Web, and spatial and temporal knowledge representation and reasoning.
- Oded Lachish: algorithms and their applications, in particular sub-linear algorithms and property testing.
- Mark Levene: Web information retrieval and navigation; web data mining; adaptive web technologies; machine learning in games.
- George Magoulas: Data modelling and data analytics; computational intelligence; user modelling; personalised learning environments; nature-inspired computing; neural networks.
- Keith Mannock: Software engineering; information retrieval and hypermedia; programming languages.
- Nigel Martin: Information management, integration, analysis and mining, with a particular interest in bioinformatics and life sciences applications.
- Steve Maybank: Computer vision; CCTV surveillance; tracking; object recognition; statistics.
• Szabolcs Mikulas: Algebraic, modal and temporal logic, and its applications.
• Alex Poulavassilis: Information access, integration and personalisation, learning environments.
• Igor Razgon: Artificial intelligence.
• George Roussos: RFID, pervasive computing, wireless sensor networks.
• David Weston: data analysis, data mining, machine learning, machine vision.
• David Wilson: Maturity models in information systems development; strategy and cross-cultural issues in global information systems.
• Peter Wood: Query languages; rule languages; query optimisation; XML compression.
• Michael Zakharyaschev: Knowledge representation and reasoning; mathematical and computer science logic; modal, spatial, temporal and description logics.
• Dell Zhang: Machine learning; information retrieval; data mining.
Assessment and Examinations

The programme is modular, and students will be assessed in each of their 8 modules and in their project. To pass a module or the project, students must obtain a mark of at least 50%.

The Research Methods module is assessed by the Interim project report of 8000-10000 words, plus technical submissions, and a 45 minutes seminar presentation, including Q&A session. The project report has a weighting of 90% and the seminar a weighting of 10% of the final mark.

For each taught module there will be a 2-hour written exam in May or June. In addition, some modules have a compulsory coursework component that must be passed in order to pass the module. For other modules, the coursework and exam marks are combined according to a given weighting, without each component having to be passed separately. This information is provided in each module description.

Exams are scheduled by the College examinations office on specified dates: these are posted well in advance on the My Birkbeck website and are non-negotiable. Students are required to sit their exams at the scheduled time and place at Birkbeck.

Note that examinations are held during the daytime, so part-time students will have to make arrangements with their employers to take leave of absence.

The College distributes exam entry forms that students need to complete by entering the modules and/or project elements that they are sitting in the given year. A student can only withdraw from an exam with the written permission of the Programme Director. This permission must be obtained at least 14 days before the first exam or by 1 May, whichever is earlier. Students who do not sit an exam and have not obtained permission to defer or withdraw their exam entry will be deemed to have failed the exam, except when this is due to illness or other reason beyond their control (see section Mitigating Circumstances). In these cases, documentary evidence must be submitted to the Programme Administrator and this evidence must be deemed to be satisfactory by the College. Students who withdraw from or miss an exam are usually required to enter the exam the next year. The College rules and regulations governing programmes are linked from the My Birkbeck webpage at: http://www.bbk.ac.uk/services/rules

The project is judged on a project report of about 20,000 words (maximum 30,000 words) plus related technical submissions. Details are provided in the section Project Guidelines and on the MRes project module on Moodle.

Simply not turning up for an exam or failing to submit a coursework or project, without permission to defer, will be considered to be the same as failing it, in the sense that it will count as one of the two attempts that you are permitted to make at passing that element.

The students should also consult the Sections on Late submission of coursework and project, Mitigating circumstances, Plagiarism and College policy on assessment offences of this Handbook.
Late Submission of Coursework and Projects

Following recommendations of the Academic Board in March 2007 and of the Department’s Teaching Committee in June 2007, the process laid out below has been implemented for dealing with late submission of items of assessment (including coursework and projects) in this MSc Programme.

(i) Extensions are not allowed. The module leader or Project tutor should specify an absolute cut off deadline for late submission and communicate it to the students together with the normal submission deadline. The absolute cut off deadline should be no more than 10 working days after the normal submission.

(ii) It is Departmental policy to accept and mark late items of assessment submitted before the cut off deadline (see point i). Students do not need to negotiate new deadlines and there is no need to obtain prior consent of the module leader or project tutor in order to submit late. The Department is unable to accept submissions after the cut off deadline.

(iii) Any type of assessment submitted late is given two marks: a penalty mark of 50%, assuming it is of a pass standard, and the “real mark” that would have been awarded if the work had not been late. Both marks are given to the student on a feedback sheet. If the work is not of a pass standard a single mark is given. For modules where coursework is compulsory to pass the module but it is not marked, coursework received before the absolute cut off deadline is not penalised.

(iv) If a student believes that they have good cause to be excused the penalty for late submission, they must make a mitigating circumstances claim (see the Mitigating Circumstances section in this Handbook) for consideration by the Mitigation Sub-Committee (see point v below). The claim form and accompanying documentary evidence must be submitted within 7 days of the cut off deadline. If no such documentation is received prior to the meeting of the Mitigation Sub-Committee the “real mark” will not be considered and the penalty mark will stand. When circumstances, such as serious accident or illness, long-term hospitalization, prevent a student from submitting evidence in time, the absolute cut off deadline for submitting accompanying documentation is the first date of the examination period as specified by the College each academic year (typically examinations at Birkbeck start in the first week of May).

(v) All requests are held over and considered by a sub-group of the relevant Exam Board prior to a meeting of the full Exam Board. This sub-group, called the Mitigation Sub-Committee, will meet termly and/or prior to the full Exam Board, as appropriate, and its results are presented to the full Exam Board.”
Mitigating Circumstances

The Academic Board in March 2007 approved the following guidelines for dealing with mitigating circumstances in relation to examinations and other forms of assessment in order to ensure consistent and fair practice across the College. For further information, students may consult the document on mitigating circumstances linked from:
http://www.bbk.ac.uk/mybirkbeck/services/administration/assessment/coursework/mitigating-circumstances

A Mitigating Circumstances claim should be submitted if valid detrimental circumstances result in:
• the late or non-submission of assessment;
• non-attendance of examination(s);
• poor performance in assessment.

Principles

Consideration by Boards of Examiners of claims for mitigating or extenuating circumstances are founded on the following principles:
• that students are ordinarily expected to meet all deadlines for coursework and to attend all examinations, as prescribed in the Programme Regulations, and to make a 'reasonable attempt’ to answer examination questions, coursework assignments or other modes of assessment;
• that it is the students’ responsibility to submit details in writing and in advance (where possible) of any mitigating circumstances they would like the Board of Examiners to take into consideration;
• that information provided by students in support of such claims shall be regarded as confidential;
• that penalties may be incurred by late- or non-submission of coursework by the due deadline or by failure to attend and attempt a prescribed examination.

Mitigating Circumstances

Not all ‘circumstances’ warrant the same consideration. Some are clearly beyond the reasonable control of students and some are not. The examples given below are not exhaustive but will serve as a guide to what Boards of Examiners will regard as acceptable ‘mitigating circumstances’ when making academic judgements. In all instances, appropriate certification (e.g. medical certificate, crime report etc.) must be provided for a circumstance beyond the reasonable control of the student to become eligible for consideration.

Examples of circumstances beyond the reasonable control of the student:
• bereavement (near relative only)
• serious accident or illness
• serious infectious disease
• burglary and theft
• childbirth

Examples of situations which may be considered beyond the reasonable control of the student:
• medical operation (if approved prior to the point of assessment or an emergency)
• hospital tests (if approved prior to the point of assessment or an emergency)
• being taken ill during an examination
• significant accident, injury, acute ailment or condition
• unanticipated and unavoidable professional obligations
• private or public transport failure leading to delays of more than 1 hour (corroborative evidence is required to verify such a delay)
Examples of circumstances that would NOT ordinarily be considered mitigating circumstances:

- accidents to friend or relatives (unless within 3 days prior to deadline or examination or where student is sole carer)
- family illness (except in an emergency or where the student is the sole carer)
- examination nerves
- feeling generally anxious, depressed or stressed (unless medically certificated and notified in advance i.e. at least 2 weeks)
- clash with paid employment
- minor accidents or injuries
- pregnancy
- cold, cough, upper respiratory tract infection, throat infection, unspecified viral infection
- childcare problems that could have been anticipated
- domestic problems (unless supported by independent evidence)
- mistaking the deadline, or time management problems (including alarm not going off)
- private or public transport failure leading to delays of less than 1 hour
- general financial problems
- legal problems (unless required to attend Court on the day of an examination or assessment)
- holidays or booked travel arrangements
- house moves
- notes burned or stolen (unless supported by a fire or police report)
- intermittent or last minute computing equipment problems (discs, machines, printers, viruses)
- handing-in problems
- inclement weather (unless exceptional/severe conditions)
- ignorance of the Regulations or examination/assessment arrangement

If a student feels their circumstances warrant consideration by the Board of Examiners they should submit a MITIGATING CIRCUMSTANCES CLAIM FORM (see below) to the Programme Administrator at the earliest opportunity (within 7 days of the assessment deadline or examination). In the form, students should state whether the circumstances relate to non-attendance at an examination or late submission of an assignment and should include supporting evidence (e.g. a medical certificate giving the nature and duration of any illness). They may inform their personal tutor, in confidence, of any problem they may not wish to disclose in writing. **Students should be aware that discussing their claim with a member of staff does not constitute a submission of a claim of mitigating circumstances.**

For a claim to be accepted a student must produce independent documentary evidence to show that the circumstances:

a) have detrimentally affected their performance/submission/attendance in assessment or will do so;
b) were unforeseen;
c) were out of their control and could not have been prevented;
d) relate directly to the timing of the assessment affected.

**Examples of acceptable documentary evidence**

- evidence (e.g. death certificate or letter from GP confirming bereavement)
- letter from lawyer, hospital, GP or employer

**Examples of non-acceptable documentary evidence**

- self-certification of illness
- letter written by a friend or acquaintance
You must submit this form at the earliest possible opportunity, and at the latest 7 days after the assessment deadline or date of exam for a module, unless otherwise stated by the appropriate School. Submission after that date must be in line with the College procedure for ‘Appeals Against Decisions of Boards of Examiners’. Claims that do not include relevant information or documentary evidence will not be considered. Acceptance of mitigating circumstances claims is at the discretion of the College only. All information submitted as a claim of mitigating circumstances will be treated as confidential.

Please check our website for further information at: https://www.bbk.ac.uk/mybbk/services/student/mitcircs/

Surname: ........................................ First Name(s): .................................................................

Student Number ................................ Programme of Study: .................................................................

Current Email Address: ........................................ (you will normally be contacted with a decision by email)

Please list all modules for which you are submitting a claim of Mitigating Circumstances:

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Assessment affected (e.g. examination, first coursework, in-class test)</th>
<th>Coursework</th>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Deadline</td>
<td>Date submitted</td>
<td>Date of examination</td>
</tr>
</tbody>
</table>

Please complete the following information by ticking the appropriate boxes and completing the related columns.

<table>
<thead>
<tr>
<th>Type of Original Evidence you are Submitting</th>
<th>Tick</th>
<th>Date Covered by Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor’s note or other medical evidence</td>
<td></td>
<td>Date From</td>
</tr>
<tr>
<td>Police letter or form</td>
<td></td>
<td></td>
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<tr>
<td>Employee’s letter (part-time students only)</td>
<td></td>
<td></td>
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<tr>
<td>Death Certificate</td>
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<tr>
<td>Other (Please specify)</td>
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</tbody>
</table>

All claims should include wherever possible original independent documentary evidence, e.g. medical certificate. If you fail to provide this information your claim may not be considered. Please note that you may resubmit a previously rejected claim only if it is supported by significant additional evidence. All claims made after the set deadline should give valid reasons for the late submission of the claim.
Please explain how the circumstances have affected your work and/or studies:

GROUP WORK: If you are submitting a claim for group work you must list the names and ID numbers (if known) of all the other members of the group. Use the boxes below:

<table>
<thead>
<tr>
<th>Surname</th>
<th>First Name</th>
<th>ID Number (if known)</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

If you are submitting your claim after the assessment has taken place please indicate the reasons for not having submitted previously. Documentary evidence should be provided:

I confirm that the above information is correct

Signature: ___________________________ Date: ______________

Return this form to your Course Administrator as soon as possible.

Departmental use only:

Received: ___________________________ SITS: ___________________________
Plagiarism

Plagiarism is defined as “copying a whole or substantial parts of a paper from a source text (e.g. a web site, journal article, book or encyclopedia), without proper acknowledgement; paraphrasing of another’s piece of work closely, with minor changes but with the essential meaning, form and/or progression of ideas maintained; piecing together sections of the work of others into a new whole; procuring a paper from a company or essay bank (including Internet sites); submitting another student’s work, with or without that student’s knowledge; submitting a paper written by someone else (e.g. a peer or relative), and passing it off as one’s own; representing a piece of joint or group work as one’s own”.

There are many ways of plagiarising the work of others. Some examples are given below.

- Copying chunks of text without using quotation marks and without appropriate acknowledgement; for example, cutting-and-pasting text from website encyclopaedias or online research papers, or copying papers written by students who did a similar project.
- Copying text and making very minor changes, and without appropriate acknowledgement. This is an example of unacceptable paraphrasing.
- Copying a picture or photo from the Internet, without appropriate acknowledgement. If you use images protected by copyright you must also obtain permission from the copyright owner. See your library for guidance.
- Using another person’s numerical spreadsheet, software or results, without appropriate acknowledgement.
- Duplicating your own work, for example by submitting almost exactly the same work for two different assignments, e.g. a piece of coursework and the MSc project.
- Using code developed by another person without acknowledging the original author as the person who developed it.

The College considers plagiarism a serious offence, and as such it warrants disciplinary action. This is particularly important in assessed pieces of work where plagiarism goes so far as to dishonestly claim credit for ideas that have been taken by someone else. According to paragraph 7 of the “College Policy on Assessment Offences”: “A student who knowingly assists another student to plagiarise (for example by willingly giving them their own work to copy from) is committing an examination offence.” The College’s procedure also identifies various types of plagiarism and is available online at the My Birkbeck webpage:
http://www.bbk.ac.uk/mybirkbeck/services/administration/assessment/offences/plagiarism

Each piece of submitted coursework or project must have an “Academic Declaration” signed by the student(s), which certifies that the authors have read and understood the sections of plagiarism in this Handbook and confirm that the work is their own, with the work of others fully acknowledged. Submissions must be also accompanied by a declaration giving us permission to submit coursework to a plagiarism-testing database that the College is subscribed.

The Academic Declaration text should include the following statements: “The author(s) certify that they have read and understood the sections of plagiarism in the Programme Handbook and confirm that the work is their own, with the work of others fully acknowledged. The author(s) give permission to submit their coursework to the plagiarism-testing database used by the College.”

If you submit work without acknowledgement or reference of other students (or other people), then this is one of the most serious forms of plagiarism. When you wish to include material that is not the result of your own efforts alone, you should make a reference to their contribution, just as if that were a published piece of work. You should put a clear acknowledgement (either in the text itself, or as a footnote) identifying the students that you have worked with, and the contribution that they have made to your submission.
The “College Guideline for Prevention of Plagiarism” also states: “Schools have the right to request any piece of assessment to be submitted for screening by a College approved plagiarism detection service. A deadline for this submission may also be set by the relevant School. Failure to comply with any such request, or failure to meet the relevant deadline, will constitute an assessment offence and will be dealt with according to the College Policy on Assessment Offences.”

For an update on procedures for dealing with plagiarism, students can consult the following document: http://www.bbk.ac.uk/reg/assessment/current_students/taught_postgrad/plagiarism

Avoiding plagiarism

The College offers the learning module “Avoiding Plagiarism” on Moodle VLE to all students. This module will help you understand plagiarism and explain in detail how one can avoid plagiarism. Below some examples are given from this module.

Citing other peoples’ work properly

Citations give brief details of the source at the point in the text where the source is used.

Citations using the Harvard system show the author and date of publication and the page number for quotations. For example:

    Oakshott (2001) argues that ...

Or

    Oakshott (2001, p. 3) argues that "democracy is dead".

If a quotation is longer than two or three lines, it is often indented using block formatting. By convention, block quotations do not usually need quotation marks - check with your course lecturer for guidance.

For example:

Worsley (2002) argues that Karl Marx is still very influential:
    Karl Marx has probably affected the course of twentieth-century history more than any other single thinker. Because of this, his ideas have generated a vast output of writings (Worsley, 2002, p. 1).

Reference:

Referencing

References include the full bibliographic information about the source, such as the author(s)'s name(s), date of publication, title of work, place of publication, and publisher. This information is usually given in the section called Reference List or Bibliography at the end of the text. The key principle is that you should give enough information to allow another person to find the source for themselves.

Here are some examples using the Harvard referencing system:

[when you are referring to a book]


[when you are referring to a chapter in a book, where 'ed.' means editor, and 'edn.' means 'edition']

[when you are referring to a journal article]


[when you are referring to a webpage]


**Independent of their type (e.g. book, article, webpage), all references are included at the end of a document in alphabetical order** starting from the author’s name as in the example above.

**Paraphrasing**

Here are some examples from the plagiarism module that might help you to understand which forms of paraphrasing are acceptable and which are treated as plagiarism.

First, the original extract is given, taken from the book, Marx and Marxism, by Peter Worsley.

*Karl Marx has probably affected the course of twentieth-century history more than any other single thinker. Because of this, his ideas have generated a vast output of writings, ranging from texts written by revolutionaries aimed at telling people how to do revolution - how to carry on Marx's work of demolishing capitalism and creating a new socialist society - to the many hundreds of volumes dedicated to proving that Marx was wrong about practically everything.*

**Acceptable practice:** Worsley (2002) suggests that Karl Marx has had a significant impact on the course of twentieth-century history. He argues that Marx’s ideas have led to a great deal of writing, across a spectrum from promoting his call for revolution to trying to show he was wrong in his analysis and predictions.

**Plagiarism:** Karl Marx, the inspiration for revolutionary activity in many countries, has probably affected the course of 20C history more than almost any other thinker. Because of this, his ideas have generated a vast output of writings, ranging from books written about revolution - how to demolish capitalism and create a new socialist society - to books dedicated to proving that Marx was wrong about practically everything.

**Copying the whole text without using quotation marks and without appropriate acknowledgement is considered plagiarism:** Karl Marx has probably affected the course of twentieth-century history more than any other single thinker. Because of this, his ideas have generated a vast output of writings, ranging from texts written by revolutionaries aimed at telling people how to do revolution - how to carry on Marx's work of demolishing capitalism and creating a new socialist society - to the many hundreds of volumes dedicated to proving that Marx was wrong about practically everything.
**College Policy on Assessment Offences**

An assessment offence is defined as “any attempt whether successful or unsuccessful to achieve an unfair advantage in any element of assessment over other candidates participating in the assessment”. Assessment Offences are categorised as *Plagiarism, Collusion, Examination Offences and Other Offences*. This policy may apply to any piece of work submitted for formal assessment towards a College or University award at Birkbeck, University of London.

The policy has two stages depending on the severity of the offence. The first stage provides for a panel hearing at the School level. The second stage provides for College level proceedings.

**Penalties are severe up to immediate termination of the student’s registration and enrolment with no award made for credits so far attained.**

Students should consult the document entitled “Policy on Assessment Offences” for definitions of the various offences and determination of the associated penalties. This is linked from the My Birkbeck webpage: [http://www.bbk.ac.uk/mybirkbeck/services/administration/assessment/offences](http://www.bbk.ac.uk/mybirkbeck/services/administration/assessment/offences)
Award of the MRes

The award of the degree is considered by an Examination Board that meets in November, after which students are notified of their results by the College. The Examination Board also meets in July to consider the results of the modules examined in May/June. After this meeting, the Department informs students by letter of their overall progress, but only the College is allowed to inform students of the actual marks received for each module, normally in August.

To be awarded the MRes, students must pass the project and the 4 modules.

To be awarded the MRes with a mark of Merit, students must pass the project and the 4 modules and must obtain an average mark of between 60% and 69%.

To be awarded the MRes with a mark of Distinction, students must pass the project and the 4 modules and must obtain an average mark of at least 70%. Students must normally achieve a distinction mark in the project in order to be awarded a distinction.

In calculating the average mark, the module marks and project mark are weighted to reflect their credit value. Each module available on the programme has a value of 15 credits while the research project has a value of 120 credits giving a total of 180 credits for the 4 modules and the project.

Students who do not pass the project but pass all 4 modules taken may ask the Examination Board to consider the award of a Postgraduate Certificate in Advanced Computing Technologies.

Resitting Elements of the Assessment

Students who do not meet one of the criteria for the award of the MRes may be allowed to resit a failed taught module or failed project. You may resit the coursework or the written exam of a taught module if your marks for that element are below 50%. A student who fails a taught module or project at the first attempt is allowed just one more attempt, normally in the following year. A student who fails a taught module or the project twice fails the MRes.

Enrolment as a Repeating, Assessment-Only or Dissertation-Only Student

A student who is taking only a small number of previously failed modules may enrol as a repeating student to retake those modules. Students taking new modules pay the regular fee. For repeating students, the fee payable is calculated pro-rata on the basis of the overall credit for the modules being taken up to a maximum of the full fee for the programme year.

Depending on the number of failed modules, a student may be allowed to enrol as a repeating student in order to resit a written exam or resubmit coursework. An assessment-only fee may be payable if a student is not attending classes.

It is also possible to enrol as a part-time revision student at Easter, for the remainder of the academic year, if you wish to attend revision lectures in the summer term or to submit answers to past exam questions to the relevant lecturers for marking. In this case, the fee is one quarter of the year’s regular part-time fee.

Non-enrolled students may not attend lectures or use the Department’s facilities. They may, however, make use of the Birkbeck library, for a fee of £50 (this is under review). If you wish to do that you would need a letter from the Postgraduate Administrator confirming your status.
Students who are not repeating modules but do not complete their project in the standard length of the programme (1 year full-time, 2 years part-time) pay a reduced dissertation-only fee which is one third of the regular fee for part-time students and one sixth of the regular fee for full-time students. Regardless of when a project is submitted, it is examined only at the November meeting of the Examination Board.
Deferral

In exceptional cases, students may be permitted to defer the written exams to the following year. Students wishing to defer must apply under the mitigating circumstances procedure (see deferring your exam) setting out the reasons for the deferral request, and returning the mitigating circumstances form to the programme administrator for authorisation before being sent to the Examinations Office. Registry’s deadline for deferral applications is May 1st for summer assessments. A student who defers an element of assessment has to enter for that element the following year; normally no further deferrals are permitted.

Students can apply to defer the examination of their project to the following September (i.e. at the end of an extra year of study). Students who wish to defer project submission should return the mitigating circumstances form to the Programme Administrator by 31 August.

Simply not turning up for an exam or failing to submit a coursework or project, without permission to defer, will be considered to be the same as failing it, in the sense that it will count as one of the two attempts that you are permitted to make at passing that element, except when this is due to illness or other reason beyond your control in which case a mitigating circumstances claim must be made within 7 days of the examination date or submission deadline (see the Section on mitigating circumstances). Students who withdraw from or miss an exam are usually required to enter the exam the next year.
Break in Studies and Withdrawal from a Programme of Study

A break in studies would normally be for a period of one academic year, but may be permitted for a shorter period of one or two terms depending on the structure of the programme. Applications for a break in studies of less than one term will not be considered. A break in studies is not normally permitted in the second term only as students must maintain their enrolled status in order to be eligible to enter assessments in term 3. Students who miss lectures or seminars for ill health or other reasons should discuss ways of catching up with missed work with their supervisors.

Students may spend a maximum of two years during their programme on “Break in Study” status. This may be in one period of two years, or non-consecutive shorter periods that add up to a total of two years or less.

For a break of longer than one year, the student should re-confirm their intention to return by the agreed date, or apply for a longer break as appropriate. A break in studies will commence on the day following the last recorded date of attendance. Students who have not re-enrolled or communicated their intentions towards the studies by the end of this period shall be withdrawn from the programme of study.

Applications for a break in study should be made by the student in writing to their Programme Director, who is responsible for considering the application. Students applying for an approved break in study should give details of the length of the proposed break and the reasons for the application to their Programme Director.

Students may undertake re-assessments during a Break in Study but may not retake a module or attempt a module for the first time.

Students will not be liable for fees while on an approved break in studies. However, students who have attended for part of a term will normally be liable for the fees due in that term, unless there are mitigating circumstances.

Any student who withdraws from their programme of study at the College must do so in writing to the College Registry. A student who withdraws from a programme of study at the College shall cease immediately to be a registered student at the college. A student who withdraws after the published deadline shall still be liable for any outstanding fees or fines or other associated costs.
Disability Support Services

At Birkbeck there are students with a wide range of disabilities including dyslexia, visual or hearing impairments, mobility difficulties, mental health needs, medical conditions, respiratory conditions. Many of them have benefited from the advice and support provided by the College’s Disability Office.

The Disability Office

The College has a Disability Office located in room G12 on the ground floor of the Malet Street building. We have a Disability Service Manager, Mark Pimm, a Disability Administrator, John Muya and a Mental Health Advisor, Elizabeth Hughes. We will shortly be appointing an SpLD Advisor.

All enquiries should come to the Disability office, who will determine the appropriate referral to specialist staff. They can provide advice and support on travel and parking, physical access, the Disabled Students Allowance, special equipment, personal support, examination arrangements etc. If you have a disability or dyslexia, we recommend you come to our drop in session where we can discuss support and make follow up appointments as necessary. The drop-in sessions are between 4pm and 6pm Monday to Thursday.

The Disability Office can also complete an Individual Student Support Agreement form with you, confirming your support requirements and send this to your School and relevant Departments at the College so they are informed of your needs.

Access at Birkbeck

Birkbeck's main buildings have wheelchair access, accessible lifts and toilets, our reception desks have induction loops for people with hearing impairments and we have large print and tactile signage. Disabled parking, lockers, specialist seating in lectures and seminars and portable induction loops can all be arranged by the Disability Office.

The Disabled Students Allowance

UK and most EU students with disabilities on undergraduate and postgraduate courses are eligible to apply for the Disabled Students' Allowance (DSA). The DSA usually provides thousands of pounds worth of support and all the evidence shows that students who receive it are more likely to complete their courses successfully. The Disability Office can provide further information on the DSA and can assist you in applying to Student Finance England for this support.

The Personal Assistance Scheme

Some students need a personal assistant to provide support on their course, for example a note-taker, sign language interpreter, reader, personal assistant, disability mentor or dyslexia support tutor. Birkbeck uses a specialist agency to recruit Personal Assistants and they can assist you with recruiting, training and paying your personal assistant. Please contact the Disability Office for information on this scheme.

Support in your School

The provision which can be made for students with disabilities by Schools is set out in the Procedures for Students with Disabilities. This is available from the Disability Office and on the disability website (see below).

As mentioned above your School will receive a copy of your Individual Student Support Agreement from the Disability Office. This will make specific recommendations about the support you should receive from the School.

The Department also has a disability officer, Jenny Pedler mailto:jenny@dcs.bbk.ac.uk whom students can contact.
Support in IT Services and Library Services
There is a comprehensive range of specialist equipment for students with disabilities in IT Services. This includes software packages for dyslexic students (e.g. Claroread and Inspiration), screen reading and character enhancing software for students with visual impairments, specialist scanning software, large monitors, ergonomic mice and keyboards, specialist orthopaedic chairs etc. For advice and assistance please contact Disability IT Support. There is also a range of specialist equipment in the Library including a CCTV reading machine for visually impaired students as well as specialist orthopaedic chairs and writing slopes. The Disability Office refers all students with disabilities to the Library Access Support service who provides a comprehensive range of services for students with disabilities.

Specific Learning Difficulties (Dyslexia)
Mature students who experienced problems at school are often unaware that these problems may result from their being dyslexic. Whilst dyslexia cannot be cured, you can learn strategies, which make studying significantly easier. If you think you may be dyslexic you should contact the Disability Office who can screen you and where appropriate refer you to an Educational Psychologist for a dyslexia assessment. These assessments cost £225. Some students can receive assistance in meeting this cost from their employer. In exceptional cases students may receive assistance from the Access to Learning Fund.

Examinations
Students with disabilities and dyslexia may be eligible for special arrangements for examinations e.g. extra time, use of a word processor, amanuensis, enlarged examination papers etc. In order to receive special arrangements a student must provide medical evidence of their disability (or an Educational Psychologists report if you are dyslexic) to the Disability Office. For School examinations you should contact your Programme Director to request special arrangements at least 2 weeks before the examination. For main College summer examinations you are given the opportunity to declare that you require special provision on your assessment entry form. Students who require provision should then attend an appointment with the Disability Office to discuss and formalise the appropriate arrangements. The closing date for making special examination arrangements in College examinations is the 15th March and beyond this date consideration will only be given to emergency cases.

Further information
Full information on disability support can be found at: http://www.bbk.ac.uk/mybirkbeck/services/facilities/disability

For further information or to make an appointment to see the Disability office, please call the Student Centre on 020 7631 6316 or email disability@bbk.ac.uk. Alternatively you can go to the Disability Office in room G12 between 4pm and 6pm Monday – Thursday for during their drop-in hours.
IT Services (ITS)

Access to College IT facilities and services is controlled by using a username and password. IT Services (ITS) usernames and passwords are allocated to registered students of Birkbeck College.

Accepted applicants for undergraduate and postgraduate degree courses will receive details from ITS of the username and password for the purpose of on-line enrolment. Following completion of enrolment, registered students will be able to access the full range of IT services. Details of the allocated email address and an Overview to ITS for Students are included in the communication students will receive from ITS. Please note the account and email address are not operational until the enrolment has been completed, until then the username and password can only be used for on-line enrolment.

Returning students should continue to use the same account they were previously allocated. If you forget your password, visit www.bbk.ac.uk/its/mycomputeraccount - if you have registered an external email address with the Registry then it may be possible to send you a new password, otherwise you will have to contact the ITS Helpdesk.

You are expected to be familiar with the College Computing Regulations which are available at: http://www.bbk.ac.uk/hr/policies_services/policies_az/computing_regulations

ITS resources include:
- 8 PC workstation rooms
- Wireless network
- Wide range of general office and specialist computer applications
- Web-based electronic mail
- Moodle Virtual Learning Environment
- Assistive technology facilities
- Training workshops and self-training materials
- Remote access to College electronic resources and services from home or work

You can find out more about these services and others by visiting our website at: www.bbk.ac.uk/its

Your Birkbeck email address will be used for official Birkbeck correspondence so you should check it at least once a week. Alternatively you can forward all email sent to this address to another email address that you do regularly check, instructions on how to do this are on the ITS website.

There is a text message news flash service which enables students to receive free urgent messages from the College via their mobile phones. You are encouraged to subscribe. Full details are available at: www.bbk.ac.uk/its/services/sms

Your ITS username and password will not necessarily work on systems that are locally managed by Schools and departments. Schools and departments who have locally managed equipment include Computer Science, Crystallography, Economics and Psychology, and your School will provide details of access. Students are allocated personal storage space on a networked file server. Files will remain on the server for one year after you leave.

Your username, password and email address will normally remain valid as long as you remain a paid up undergraduate or postgraduate student of Birkbeck College. However, if we have reason to think that the security of an account has been compromised your account could be suspended without warning and you will need to visit the ITS Helpdesk to have it reinstated.

<table>
<thead>
<tr>
<th>ITS Helpdesk Opening Hours</th>
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<tbody>
<tr>
<td>Ground Floor (next to Library entrance), Malet Street Main Building</td>
</tr>
<tr>
<td>Term time: Monday to Friday 10:00am to 8:00pm</td>
</tr>
<tr>
<td>Tel: 020 7631 6543 Email: <a href="mailto:its@bbk.ac.uk">its@bbk.ac.uk</a></td>
</tr>
</tbody>
</table>
Library Services

Although lectures and computing sessions are essential elements of your course, success in learning depends largely on the reading and research that you undertake. Most items on module reading lists can be found in Birkbeck Library and it is important that you familiarise yourself with the Library as soon as you can. At postgraduate level, you will also be expected to use other libraries during your studies.

The entrance to Birkbeck Library is on the ground floor of the main building in Malet Street. Your College ID card gives you automatic access to the Library. There is no need to register. The opening times of the Library are designed to meet the needs of part-time students in full-time work. During term-time, the Library is open

- Monday – Friday 8.30am – 11.45pm
- Saturday – Sunday 8.30am – 11.45pm

You can borrow up to 15 items and they can be renewed as long as no-one else requests them. Most books can be borrowed for 3 weeks. Some books, videos and DVDs can be borrowed for 1 week. A few items can only be issued for 1 day. There is also a Reading Room Collection with reference access to key course readings.

Please be a responsible Library user. The smooth running of the Library depends on your cooperation. Please renew or return items promptly, especially if someone else has requested them. If you fail to return items on time you will incur fines and your borrowing rights will be suspended. Students who have overdue items at the end of the academic year will have examination results withheld until the items are returned.

The Library website is at [http://www.bbk.ac.uk/lib](http://www.bbk.ac.uk/lib). As well as giving comprehensive information about the Library’s services and collections, you can also:

- Search the Library catalogue, renew your books and place reservations on items that are out on loan.
- Read articles in over 25,000 electronic journal titles and newspapers.
- Search databases to help you find out what has been written about the subject you are researching, including the ACM and IEEE Digital Libraries, Business Source Premier, Nexis UK and the Science and Social Sciences Citation Index.
- Access past exam papers.
- Work through LIFE – an online tutorial to help you make the most of the Library.

As well as its physical holdings, the Library has a comprehensive range of e-resources including bibliographic databases (which tell you what has been written on a topic), and electronic journals. Most of the electronic resources can be accessed from outside the College using your IT Services username and password. If you did not receive this upon enrolment, please ask for them at IT Services reception (Malet Street).

The LAMP Service (LibrAry Materials by Post) is a subscription based service which enables you to have books and photocopies of articles posted to your home address. You may find it particularly useful if you are not able to visit the library frequently. Birkbeck students with disabilities may be able to join the service for free on the recommendation of the College Disability Officer, Mark Pimm. If you think you may be eligible for free membership, please first contact Mark Pimm in the Disability Office.

The College Library also runs an interlibrary loan service to enable you to obtain copies of books and articles not held in its own collections. As it can take a couple of weeks to obtain copies of requested materials, you are advised to plan ahead in your general reading and essay preparation so as to make
use of this facility. Please note: a charge of £1 will be made for each interlibrary loan request received and there is a limit of 10 requests in progress at any one time.

Birkbeck students can also use a range of other libraries. Students have reference access to most University of London college libraries. In addition, postgraduate students can join the **SCONUL Access Scheme** which allows access to most other higher education libraries with limited borrowing rights. See the Library web site for more information.

An introduction to the Library and bibliographical skills is timetabled at the start of your course at which you will meet the Subject Librarian who looks after the collection. They will introduce you to the Library and its electronic resources. In addition, the Library has an online tutorial called LIFE (Library Induction for Everyone) which is always available: [http://www.bbk.ac.uk/lib/life/](http://www.bbk.ac.uk/lib/life/) which has a module in it on ‘Researching a topic’.

If a book you need is not available in the Library or you require any assistance using the resources or finding information, please ask at the Help Desk. Telephone: 020 7631 6063. Alternatively, contact your Subject Librarian, **Aidan Smith**, directly. Telephone: 020 7631 6062. Email [am.smith@bbk.ac.uk](mailto:am.smith@bbk.ac.uk)
Other Resources and Organisations

Birkbeck Student Union
You are automatically a member of the Birkbeck Students’ Union, the University of London Union and NUS upon taking up the offer of a place to study at Birkbeck. NUS cards are available online (NUS Extra) or from the Union Office, Malet Street. Application can be made to become a member of the International Students’ Association by completing a form that can also be obtained from their shop.

Location and Telephone: Offices on the 4th Floor of the extension building in Malet Street. General Union Office is in Room 456, Tel: 020 7631 6335. Enquiries: administrator@bcsu.bbk.ac.uk. Visit the website at http://www.birkbeckunion.org/.

Counselling
The Students’ Union offers counselling free of charge.

Birkbeck Evening Nursery
Birkbeck College has an Evening Nursery, which is available for students and current members of staff and accepts children aged 2-10 years. In exceptional circumstances, children up to 12 will be accepted. However, Nursery Staff reserve the right not to accept older children if they are disruptive. Full details, including opening times, may be found at: www.bbk.ac.uk/pers/nursery.

Career Development
Most students are interested in developing their careers, either within their current field of work or in a completely new direction. The Specialist Institutions’ Careers Service [SICS], part of The Careers Group, University of London, offers great expertise and experience in working with students and graduates of all ages and at all stages of career development. And it’s Birkbeck’s next-door neighbour!

During term-time they offer an Early Evening Advisory Service specifically and exclusively for evening students and a Drop-In Advice Service, which is always very popular with the Birkbeck students.

Longer Advisory Interviews can be arranged if necessary - for complete career beginners, for people wanting a practice job interview, and for every stage and situation in between.

They also offer Psychometric Testing and Personality Assessment Workshops, Employer Presentations, Computer-based Career Guidance Programs, Insight Career Courses as well as invaluable information on Course Funding.

For more information and opening times visit the SICS website at: http://www.careers.lon.ac.uk/sics.

The Business Engagement Team (BEI School)
The Business Engagement Team work to develop sustainable external relationships and add value to your Birkbeck experience by facilitating professional partnerships and delivering events. Please look out for information on events held on the last evening of each academic term as well as special events throughout the year. You can also follow the School of Business, Economics and Informatics (BEI) on social media for information and conversations:

- Twitter: @BirkbeckBEI
- Facebook: BirkbeckBEI
- LinkedIn: Search ‘Birkbeck, School of Business, Economics and Informatics’
- Google+: Search ‘Birkbeck, School of Business, Economics and Informatics’

Mentoring
Using partnerships forged with Credit Suisse, PwC, Birkbeck alumni and other partners, the Business Engagement Team organise a Mentoring programme each year for students in their final year of their
under-graduate programme or for those taking a post-graduate qualification. Business Mentoring at Birkbeck pairs successful applicants with industry professionals for individual advice and guidance. There are approximately 50 places available.

If you are interested in the scheme as a mentee, please apply by 10th October 2014: http://bit.ly/beimentee

If you are currently employed and believe your employer may be interested in working as a partner organisation to provide more mentors for this scheme, please email: mentoring@bbk.ac.uk

**Entrepreneurship**

The Business Engagement Team also runs projects, events and networking opportunities to enhance your entrepreneurial thinking and to provide support for students interested in self-employment or already managing their own businesses.

**Communications**

You may be contacted with emails directly by the Business Engagement Team, unless you requested ‘no publicity’. These emails will inform you of upcoming events, unique opportunities with potential employers and other ways in which you may grow your network with Birkbeck. Should you encounter any difficulties in receiving these emails, please contact: Events and Communications Manager, Matthew Jayes (m.jayes@bbk.ac.uk).