

**PROGRAMME SPECIFICATION**

<b>1</b>	<b>Awarding Institution</b>	Newcastle University
<b>2</b>	<b>Teaching Institution</b>	Newcastle University
<b>3</b>	<b>Final Award</b>	MSc
<b>4</b>	<b>Programme Title</b>	E-Business E-Business (E-Marketing) E-Business (Information Systems)
<b>5</b>	<b>UCAS/Programme Code</b>	5124F 5175F 5174F
<b>6</b>	<b>Programme Accreditation</b>	N/A
<b>7</b>	<b>QAA Subject Benchmark(s)</b>	Masters Awards in Business Management
<b>8</b>	<b>FHEQ Level</b>	7
<b>9</b>	<b>Date written/revised</b>	January 2014, June 2014

**10 Programme Aims**

This postgraduate course in E-Business with routes in E-Marketing (with a particular emphasis on marketing products and services over the Internet) and Information Systems (with a particular emphasis on developing and managing Internet-based information systems) aims to produce graduates who understand both the fundamentals of strategies and business processes and the development and application of information systems in supporting new organisations and new business practices in a range of electronic business sub-domains.

Our aim is to produce graduates who aspire to take on strategic responsibilities in private and public sector organisations and lead their transformation through innovative use of information systems. The course is primarily aimed at graduates or those at graduate level who have a background either in business management or computing science/information systems, but are interested in a management career with a strong emphasis on E-Business, E-marketing or Information Systems. On completion we expect them to position themselves between managers who, for the most part, lack the technical expertise of computer scientists, and computer scientists who lack the business acumen of managers.

The programme aims are:

- 1 To produce professionals with in-depth business and computing expertise, depending on the chosen pathway, by developing multidisciplinary skills
- 2 To provide a systematic understanding of business and computing knowledge and skills required to tackle practical and theoretical e-business related problems in a wide range of e-business sub-domains
- 3 To provide a deep understanding of the most commonly used analytical, quantitative and experimental methods in both business and computing sciences
- 4 To develop advanced research skills to identify emerging problems and opportunities, devise appropriate business and computing methodologies to tackle these problems and develop and implement effective solutions
- 5 To produce professionals who can be self-directed and able to act autonomously, but who are also able to operate effectively in a variety of team roles
- 6 To produce professionals who have the ability to communicate effectively both orally and in writing, using a range of media.
- 7 To develop and improve skills in the use of literary resources and information and communication technologies
- 8 To encourage creativity and help develop enterprise skills, in order to facilitate

<p>decision making in complex and unpredictable situations.</p> <p>9 To develop skills in critical assessment, analysis and storage of information and data.</p> <p>10 To provide a qualification enhancing employment prospects for e-related positions.</p> <p>11 To provide a programme that conforms to University policies and to the Higher Education Qualifications Framework (HEQF)</p> <p>12 To conform to the subject benchmarking statements for Masters Business programmes.</p>
<p><b>11 Learning Outcomes</b></p>
<p>The programme outcomes have references to the benchmark statements for Masters Awards in Business and Management and provides students with opportunities to demonstrate disciplinary competency by developing their knowledge and understanding of the key principles and theories in their subject area and combines theory with the application of skills required to generate solutions within their discipline.</p>
<p><b>Knowledge and Understanding</b></p>
<p>On completing the programme students should have:</p> <p>A1 An in-depth understanding of the fundamental business and computing knowledge required to tackle practical and theoretical e-business related problems</p> <p>A2 A comprehensive knowledge of the most commonly used analytical, quantitative and experimental methods in business and computing sciences and their application to practice</p> <p>A3 A deep understanding of contemporary business and computing environments</p> <p>A4 Up-to-date knowledge of advanced theories of business strategies and processes, organisational design and transformation derived from current research and business practice</p> <p>A5 Advanced knowledge of latest theories of computing and information system design in the context of electronic business, development and implementation derived from research and practice</p> <p>A6 Advanced knowledge and understanding of chosen specialist area in E-Business and Information Systems</p> <p>A7 A deep understanding of the theory and principles which underlie business and computing sciences in the context of ebusiness, so that students can appreciate the current state of these subjects and can adapt to continued rapid developments throughout their subsequent careers</p> <p>A8 Advanced and up-to-date knowledge of their selected sub-domain</p> <p>A9 The ability to identify ethical issues and make recommendations for appropriate courses of action</p> <p>A10The ability to define the key components of computing business environments in different societal contexts and give examples of how environmental components differ across those contexts.</p>

<b>Teaching and Learning Methods</b>
Fundamental and specialist knowledge are imparted largely through direct student contact (lectures and tutorials), supplemented by seminars and practical sessions that may take the form of group discussions, computing sessions, problem solving and assessed coursework, and project proposals. Student understanding and learning is enhanced by the use of computing and information systems exercises, problem solving, literature reviews, teamwork and practical work and production of a group project. Independent learning is encouraged through the provision of reading lists, literature reviews and critical analysis of research papers, and ready access to online information resources. Adequate time is provided in all modules for private study for independent learning. (A1-A10)
<b>Assessment Strategy</b>
A variety of techniques are employed to assess knowledge and understanding (A1–A10) including unseen written examinations, and a large proportion of continuously-assessed material: written reports on practical work and problem solving exercises; literature reviews; oral presentations; project proposals; and project theses. Some modules include self- and peer-assessed material and problem-based questions. Fundamental knowledge is assessed primarily through the examinations, and students' abilities to apply the knowledge to relevant problems are assessed through the use of practical exercises and tutorials, group work, problem-solving exercises and reports.
<b>Intellectual Skills</b>
<p>On completing the programme students should be able to:</p> <ul style="list-style-type: none"> <li>B1 Propose, carry out and write up an extended research project involving where appropriate a literature review, problem specification, design, implementation, and analysis</li> <li>B2 Design and implement new software packages, and compositions of existing packages</li> <li>B3 Apply knowledge of specific business and computing science methods and techniques to the development and implementation of a real E-Business system</li> <li>B4 Have expertise in the use and applicability of up-to-date business management and computing/information system analysis and development tools and techniques</li> <li>B5 Perform system analysis, benchmarking, management and installation functions as required to support E-Business applications</li> </ul>
<b>Teaching and Learning Methods</b>
Subject-specific and professional skills are imparted by a combination of lectures, practical sessions, case studies and an in-depth research project tailored to individual interests. Tutorials are used to focus on specific research topics in detail, to carry out problem solving exercises and critical analysis of the current software tools, analytical techniques and research literature, to ensure up-to-date knowledge of subject-specific research fields. (B1-B5)
<b>Assessment Strategy</b>
Subject-specific and professional skills (B1-B5) are assessed by written examinations and continuously assessed material that includes written essays, practical write-ups, literature reviews, a group project, oral presentations, a poster presentation and a research thesis. The assessment methods aim to evaluate the students' understanding and ability to apply theories and techniques that form the basis for this multidisciplinary course.

Practical Skills
<p>On completing the programme students should be able to:</p> <ul style="list-style-type: none"> <li>C1 Demonstrate numeracy by applying appropriate computational techniques to solve numerical problems and critically evaluate research and literature relating to e-business and information systems</li> <li>C2 Solve computing/information system development problems, where appropriate/relevant</li> <li>C3 Present, store and handle quantitative and qualitative information</li> <li>C4 Demonstrate appropriate solutions applied to analytical and information handling problems</li> </ul>
Teaching and Learning Methods
<p>Critical evaluation of current research is developed through literature searching, through coursework exercises and in the research project in particular. The ability to solve computing and numeric problems is acquired through practical sessions and self-directed learning. Tutorials and group discussion are used to reinforce specific computing and numeric methodology. Problem solving exercises and case studies are used to improve student skills in the application of appropriate solutions to E-Business problems. (C1-C4)</p>
Assessment Strategy
<p>Cognitive skills (C1-C4) are primarily assessed continuously in the form of individual essays from practical studies, literature reviews, tutorial exercises and a group project report. Data and information handling and interpretation are a strong component of many modules and are also assessed through the use of examinations and continuously-assessed problem-solving exercises.</p>
Transferable/Key Skills
<p>On completing the programme students should be able to:</p> <ul style="list-style-type: none"> <li>D1 Use appropriate verbal communication to convey information tailored in content style and presentation to the needs of their intended audience.</li> <li>D2 Use appropriate written communication to convey information tailored in content style and presentation to the needs of their intended audience</li> <li>D3 Use literary resources</li> <li>D4 Work as part of a team contributing to effectively and appropriately to the team based activity.</li> <li>D5 Use creative skills</li> <li>D6 Adapt and use initiative</li> </ul>

Teaching and Learning Methods
Oral presentation skills are exercised by group discussions in tutorial sessions, by communication during group exercises, and by the preparation of oral presentations on specific research topics. Written communication skills are developed during independent study, the preparation of coursework, web page design, poster presentation and through the completion of the research project proposal and the project thesis. Formal lectures and practical sessions address the use of online literary resources and research techniques, reinforced through the use of practice exercises. The group project and student-led tutorials are used to develop team skills. The preparation of web pages and poster presentations is used to enhance writing and creativity skills (whilst also improving computing skills). (D1-D6)
Assessment Strategy
Written communication skills are assessed by report preparation, the research thesis and literature reviews. Oral communication skills are assessed in oral presentations. The ability to use computer-based literacy resources is assessed through the preparation of literature reviews and through self-assessment. Team work is formally evaluated using small group-based problem-solving and data-analysis exercises. Independent work is assessed in literature reviews and research projects. Creativity is assessed through problem-solving exercises and poster preparation. The production of web pages is included in some modules to assess students' abilities to provide synopses of information in a scientific but creative fashion. (D1-D6)

## 12 Programme Curriculum, Structure and Features

### Basic structure of the programme

This is a one-year, full-time, intensive modular programme. The programme consists of two parts: a **taught component** that runs during the first and second semesters and a **research project** that runs during the third semester, for which a thesis is submitted.

The programme consists of streams based on shared modules. These are the e-business stream, the e-marketing stream and the information systems stream. The taught component of the course accounts for 110 credits, while the E-Commerce Stat-Up, and the dissertation modules account for the remaining 70 credits.

	E-Business (5124F)	E-Business (E-Marketing) (5175F)	E-Business (Information Systems) (5174F)
1 <sup>st</sup> Semester	E-Business (NBS8322) (10)		
	Business Strategy, Management and Information Systems (NBS8321) (20)		
	Understanding Organisations (NBS8007)(10)	Principles of Marketing (NBS8526) (20)	Advanced Programming in Java (CSC8404) (10) <b>OR</b> Object-Oriented Programming (CSC8406)
	Technology Change and Innovation Management (NBS8214) (10)	Research Methods (ICE/ABC/E-Business) (NBS8062) (10)	Information Security and Trust (CSC8202) (10)
	Research Methods (ICE/ABC/E- Business) (NBS8062) (10)		Cloud Computing (CSC8110) (10)

2 <sup>nd</sup> Semester	Enterprise and Entrepreneurial Management: A Critical Exploration (NBS8139) (10) E-Commerce Start-Up (NBS8323) (10) Information Systems Management (NBS8053) (10)		
	Research Methods (ICE/ABC/E-Business) (NBS8062) (10)  E-Marketing (NBS8519) (10)  Supply Chain Information Systems and Technology (NBS8325) (10)	Research Methods (ICE/ABC/E-Business) (NBS8062) (10)  E-Marketing (NBS8519) (10)  Customer Relations Management (NBS8236) (10)	Research Methods for E-Business and Information Systems (CSC8405) (10)  Network and Web Technologies (CSC8004) (20)
Rest of the year	Dissertation (NBS8011) (60)	Dissertation (NBS8011) (60)	Dissertation (CSC8407) (60)

The programme aims to provide comprehensive training in interdisciplinary aspects of e-business and information systems and their applications to e-business sub domains. Different from conventional conversion courses, this programme aims to produce graduates who understand both business and computing management. Depending on their chosen pathway students will have the opportunity to specialise further in Emarketing or Information Systems by undertaking modules relevant to their pathway. To this end, this programme will encourage group/team working; student-centred learning; skills/ competence development; practical orientation; and problem solving. Where appropriate, students will be assigned in groups of mixed disciplinary and cultural backgrounds so they can help each other develop relevant knowledge and skills in the area they lack expertise; and the process itself will also be a valuable experience for students to succeed in the global, knowledge based economy.

The module lists for each stream are outlined below.

#### **E-BUSINESS STREAM**

Module Code	Title	Semester	Credits
NBS8322	E-Business	1	10
NBS8321	Strategy, Management and Information Systems	1	20
NBS8007	Understanding Organisations	1	10
NBS8214	Technology, Change and Innovation Policy	1	10
NBS8062	Research Methods (ICE/ABC/E-Business)	1&2	20
NBS8139	Enterprise and Entrepreneurial Management: A Critical Exploration	2	10
NBS8323	E-Commerce Start-Up	2	10
NBS8053	Information Systems Management	2	10
NBS8519	E-Marketing	2	10
NBS8325	Supply Chain Information Systems and Technology	2	10
NBS8011	Dissertation	3	60

**E-MARKETING STREAM**

Module Code	Title	Semester	Credits
NBS8322	E-Business	1	10
NBS8321	Strategy, Management and Information Systems	1	20
NBS8506	Principles of marketing	1	20
NBS8062	Research Methods (ICE/ABC/E-Business)	1&2	20
NBS8139	Enterprise and Entrepreneurial Management: A Critical Exploration	2	10
NBS8323	E-Commerce Start-Up	2	10
NBS8053	Information Systems Management	2	10
NBS8519	E-Marketing	2	10
NBS8236	Customer Relations Management	2	10
NBS8011	Dissertation	3	60

**INFORMATION SYSTEMS STREAM**

Module Code	Title	Semester	Credits
NBS8322	E-Business	1	10
NBS8321	Strategy, Management and Information Systems	1	20
CSC8404 *	Advanced Programming in Java	1	10
CSC8406 *	Object-Oriented Programming	1	10
CSC8202	Information, Security and Trust	1	10
CSC8110	Cloud Computing	1	10
CSC8405	Research Methods for E-Business and Information Systems	2	10
NBS8139	Enterprise and Entrepreneurial Management: A Critical Exploration	2	10
NBS8323	E-Commerce Start-Up	2	10
NBS8053	Information Systems Management	2	10
CSC8004	Network and Web Technologies	2	20
CSC8407	Dissertation	3	60

\* Students could choose between CSC8404 Or CSC8406. CSC8404 is for students who feel more confident in object-oriented programming.

**Key features of the programme (including what makes the programme distinctive)**

**Semester 1** provides the theoretical background for all streams, via 2 shared modules (E-Business and Strategy, Management and Information Systems), which account for 1/2 of the 1<sup>st</sup> semester modules credits. These are supplemented by streamed modules (either 3 modules of 10 credits each or 1 module of 20 credits plus 1 module of 10 credits).

**Semester 2** aims to put in practice the knowledge and skills acquired in the first semester through a business plan project (E-Commerce Start-Up module). Groups are established with students of both disciplines and undertake a project to address e-commerce opportunities. The group project also aims to help students develop generic key skills, including literature searching, managing teams and projects, and most of all, helping each other to develop essential knowledge and skills in both e-business and information systems. The module Enterprise and Entrepreneurial Management: A Critical Perspective is an excellent complement to the E-Commerce Start-Up because it focuses on the development of the person as an entrepreneur in new or existing firms. The information systems management module is aimed at giving students the opportunity to develop a general awareness of the latest thinking in e-business and information systems, and a deep understanding of the future of it in companies. The research methods module will help students develop essential knowledge and skills and prepare them for the dissertation. The remaining credits correspond to a 'streamed' module.

**Research project:** The 60-credit research project is of three months duration. The research project will be based within a real business environment giving students the opportunity to apply their skills in real problem solving. If the dissertation is based on a group project, each student needs to outline clearly their contributions to the project and articulate their individual learning and reflections in the dissertation. Each dissertation will follow closely the theme of the student's selected stream.

**Programme regulations (link to on-line version)**

<http://www.ncl.ac.uk/regulations/programme/>

**13 Criteria for admission**

*Entry qualifications*

Candidates should hold a good first degree in an appropriate subject. For the MSc in Ebusiness (Information Systems) students should have a computing/information systems degree. Normally a 2:1 Upper Second Class degree will be the minimum entry requirement, although candidates without this qualification may be interviewed by the Degree Programme Director and/or Director of Postgraduate Studies who will assess the candidate's suitability on the basis of a sample of written work and/or oral discussion.

*Admissions policy/selection tools*

The admissions policy conforms to the University standard policy for postgraduate students. Upon receipt of a completed application form candidates may be offered an interview. Offers of places may be made to suitably-qualified candidates, conditional upon two satisfactory references and upon the applicant achieving a minimum of an upper 2<sup>nd</sup> class degree (or overseas equivalent), if they do not hold such a degree at the time of application. Applicants whose first degree is not taught in English must provide evidence of a satisfactory command of English by means of an IELTS score of 6.5 or greater, or an equivalent TOEFL score (570) or 230 for computer-based test with no sub score below IELTS 6.0 or equivalent.

*Non-standard Entry Requirements*

*Additional Requirements*

*Level of English Language capability*

Overseas applicants should have, or expect to obtain, an IELTS score of 6.5 or above with a minimum of 6.0 in all sub-skills, or a TOEFL score of 580 (240) or above. The University provides pre-sessional and foundation courses in English Language and successful completion of one of these may be a condition of entry.



## **14 Support for Student Learning**

The Student Services portal provides links to key services and other information and is available at: <http://www.ncl.ac.uk/students/>

### *Induction*

During the first week of the first semester students attend an induction programme. New students will be given a general introduction to University life and the University's principle support services and general information about the School and their programme, as described in the Degree Programme Handbook. New and continuing students will be given detailed programme information and the timetable of lectures/practicals/labs/ tutorials/etc. The International Office offers an additional induction programme for overseas students.

### *Study skills support*

Students will learn a range of Personal Transferable Skills, including Study Skills, as outlined in the Programme Specification. Some of this material, e.g. time management is covered in the appropriate Induction Programme. Students are explicitly tutored on their approach to both group and individual projects.

Numeracy support is available through Maths Aid and help with academic writing is available from the Writing Centre (further information is available from the Robinson Library).

### *Academic and Pastoral support*

Each undergraduate and taught postgraduate student will be assigned a personal tutor.\* A personal tutor is one part of a wider network of advice and guidance available to students to support their personal and general academic development. The module leader acts as the first point of contact for subject-specific academic advice. Thereafter the Degree Programme Director or Head of School may be consulted. Issues relating to the programme may be raised at the Student-Staff Committee, and/or at the Board of Studies. Within the academic unit, students may also receive additional academic and pastoral advice from a range of other student-facing staff including degree programme directors, dissertation/project supervisors, and administrative support staff.

\*Arrangements may vary for students taking special types of provision.

The University also offers a wide range of institutional services and support upon which students can call, such as the Writing Development Centre, Careers Service and Student Wellbeing Service. This includes one-to-one counselling and guidance or group sessions / workshops on a range of topics, such as emotional issues e.g. stress and anxiety, student finance and budgeting, disability matters etc. There is specialist support available for students with dyslexia and mental health issues. Furthermore, the Student Union operates a Student Advice Centre, which can provide advocacy and support to students on a range of topics including housing, debt, legal issues etc.

### *Support for students with disabilities*

The University's Disability Support team provides help and advice for disabled students at the University - and those thinking of coming to Newcastle. It provides individuals with: advice about the University's facilities, services and the accessibility of campus; details about the technical support available; guidance in study skills and advice on financial support arrangements; a resources room with equipment and software to assist students in their studies.

### *Learning resources*

The University's main learning resources are provided by the Robinson and Walton Libraries (for books, journals, online resources), and Information Systems and Services, which supports campus-wide computing facilities.

All new students whose first language is not English are required to take an English Language Proficiency Test. This is administered by INTO Newcastle University Centre on behalf of Newcastle University. Where appropriate, in-session language training can be provided. The INTO Newcastle University Centre houses a range of resources which may be particularly appropriate for those interested in an Erasmus exchange.

<b>15</b>	<b>Methods for evaluating and improving the quality and standards of teaching and learning</b>
-----------	--

*Module reviews*

All modules are subject to review by questionnaires which are considered by the Board of Studies. Changes to, or the introduction of new, modules are considered at the School Teaching and Learning Committee and at the Board of Studies. Student opinion is sought at the Staff-Student Committee and/or the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Teaching and Learning Committee.

*Programme reviews*

The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Teaching and Learning Committee.

*External Examiner reports*

External Examiner reports are considered by the Board of Studies. The Board responds to these reports through Faculty Teaching and Learning Committee. External Examiner reports are shared with institutional student representatives, through the Staff-Student Committee.

*Student evaluations*

All modules, and the degree programme, are subject to review by student questionnaires. Informal student evaluation is also obtained at the Staff-Student Committee, and the Board of Studies. The National Student Survey is sent out every year to final-year undergraduate students, and consists of a set of questions seeking the students' views on the quality of the learning and teaching in their HEIs. Further information is at [www.thestudentsurvey.com/](http://www.thestudentsurvey.com/) With reference to the outcomes of the NSS and institutional student satisfaction surveys actions are taken at all appropriate levels by the institution.

*Mechanisms for gaining student feedback*

Feedback is channelled via the Staff-Student Committee and the Board of Studies.

*Faculty and University Review Mechanisms*

Every six years degree programmes in each subject area undergo periodic review. This involves both the detailed consideration of a range of documentation, and a review visit by a review team (normally one day in duration) which includes an external subject specialist and a student representative. Following the review a report is produced, which forms the basis for a decision by University Learning, Teaching and Student Experience Committee on whether the programmes reviewed should be re-approved for a further six year period.

*Accreditation reports*

None

*Additional mechanisms*

None

<b>16</b>	<b>Regulation of assessment</b>
-----------	---------------------------------

*Pass mark*

The pass mark is 50%

*Course requirements*

Progression is subject to the University's Masters Degree Progress Regulations, Taught and Research and Examination Conventions for Taught Masters Degrees. There are reassessment opportunities, with certain restrictions. Limited compensation up to 40 credits of the taught element and down to a mark of 40% is possible for candidates who commenced their programme in 2013/14 or earlier. For students starting their programme in 2014/15 or later, no compensation is possible.

The University employs a common marking scheme, which is specified in the Taught Postgraduate Examination Conventions, namely:

**Summary description applicable to postgraduate Masters programmes**

<50	Fail
50-59	Pass
60-69	Pass with Merit
70 or above	Pass with Distinction

**Summary description applicable to postgraduate Certificate and Diploma programmes**

<50	Fail
50 or above	Pass

*Role of the External Examiner*

An External Examiner, a distinguished member of the subject community, is appointed by Faculty Teaching and Learning Committee, following recommendation from the Board of Studies. The External Examiner is expected to:

- i. See and approve assessment papers
- ii. Moderate examination and coursework marking
- iii. Attend the Board of Examiners
- iv. Report to the University on the standards of the programme

In addition, information relating to the programme is provided in:

The University Prospectus: <http://www.ncl.ac.uk/postgraduate/>

The School Brochure: <http://www.ncl.ac.uk/marketing/services/print/publications/ordering/>

Degree Programme and University Regulations: <http://www.ncl.ac.uk/regulations/docs/>

The Degree Programme Handbook

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

## How the intended learning outcomes map onto modules

<b>COMMON</b>		
Module Code	Title	Intended Learning Outcomes
NBS8322	E-Business	A1,A3,A6,A7,C1,D2,D3
NBS8321	Strategy, Management and Information Systems	A1,A3,A4,A7,A9,A10,C1,D2,D3
NBS8139	Enterprise, and Entrepreneurial Management: A Critical Exploration	A4,C3,C4,D2,D3,D5,D6
NBS8323	E-Commerce Start-Up	A1,A3,B1,B2,B5,C2,C3,C4,D1,D2,D3,D4,D5,D6
NBS8053	Information Systems Management	A1,A2,A6,A7,A8,B1,B2,B3,B4,B5,C1,C2,C3,D1,D2,D3
<b>STREAMED</b>		
Module Code	Title	Intended Learning Outcomes
NBS8007	Understanding Organisations	A1,A3,A4,A7,A9, A10, C1,D1,D2,D3
NBS8214	Technology, Change and Innovation Policy	A1, A3, A4, A6, A8, B4, D1, D2, D3, D4, D6
NBS8506	Principles of marketing	A1,A3,A6,A7,A8,C1,D1,D2,D3
NBS8519	E-Marketing (NBS8519)	A1,A2,A4,A6,A7,A8,B3,B5,C1,C3,C4,D1,D2,D3,D4
NBS8236	Customer Relations Management	A1,A2,A4,A6,A7,A8,B3,B5,C1,C3,C4,D2,D3
NBS8325	Supply Chain Information Systems and Technology	A1,A2,A4,A6,A7,A8,B3,B5,C1,C3,C4,D1,D2,D3
CSC8404	Advanced Programming in Java	A1,A3,A5,A6,A7,A8,B2,B3,B4,B5,C2,C3,C4,D2
CSC8406	Object-Oriented Programming	A1,A3,A5,A6,A7,A8,B2,B3,B4,B5,C2,C3,C4,D2
CSC8202	Information Security and Trust	A1,A3,A5,A6,A7,A8,A9,B3,B5,C2,C3,C4,D2
CSC8110	Cloud Computing	A1,A3,A5,A6,A7,A8,B3,B5,C2,C3,C4,D2
NBS8062	Research Methods (ICE/ABC/E-Business)	A1,A2,A6,A8, A9, A10, C1,C3,D1,D2,D3
CSC8405	Research Methods for E-Business and Information Systems	A1,A2,A5,A6,A8,C1,C2,C3,D1,D2,D3
CSC8004	Network and Web Technologies	A1,A2,A5,A6,A7,A8, B1,B2,B3,B4,B5,C1,C2,C3,C4,D1,D2,D3
NBS8011	Dissertation	A1,A2,A4,A5,A6,A7,A8, A9, A10, B1,B2,B3,B5,C1,C2,C3,C4,D1,D2,D3,D5,D6
CSC8407	Dissertation	A1,A2,A4,A5,A6,A7,A8, A9, A10, B1,B2,B3,B5,C1,C2,C3,C4,D1,D2,D3,D5,D6