

## PROGRAMME SPECIFICATION



1	<b>Awarding Institution</b>	Newcastle University
2	<b>Teaching Institution</b>	Newcastle University
3	<b>Final Award</b>	MComp (Hons)
4	<b>Programme Title</b>	Computer Science Computer Science (Study Abroad)
5	<b>UCAS/Programme Code</b>	G405 G406
6	<b>Programme Accreditation</b>	British Computer Society
7	<b>QAA Subject Benchmark(s)</b>	Computing
8	<b>FHEQ Level</b>	7
9	<b>Last updated</b>	18 August 2010

### 10 Programme Aims

1. To produce graduates with the in-depth knowledge and skills necessary to exploit computing systems throughout their professional life. Graduates will have a clear understanding of the practical, theoretical and professional foundations of Computing Science. They will have knowledge and experience of the fundamental techniques used in modern software engineering. They will also have an understanding of the architectural concepts underpinning computer and networking hardware platforms. They will be able to apply relevant theory to the solution of practical problems and to the analysis of existing algorithms and techniques, and to recommend techniques and algorithms appropriate to specific circumstances in the areas of fundamental systems and major applications. They will also be able to appreciate, develop and evaluate new algorithms, techniques and other developments within the computing field.
2. To provide a flexible structure that allows students to follow a general programme in Computing Science, and to study advanced topics in their final (4<sup>th</sup>) year. Students will be able to design, build and integrate advanced networked computing systems in a range of application areas, such as mobile and wireless communications, computationally intensive financial and health applications, and business-critical enterprise applications involving multiple businesses and outsourcing. We envisage students growing into architect and chief architect roles for software product groups in start-ups or other enterprises, and being able to initiate and lead consulting efforts for field implementations of networked computing solutions.
3. To provide programmes that equips students with subject-specific and transferable skills that will enable them to pursue a variety of careers within, and outside, the IT industry, including research.
4. To provide programmes which meets the accreditation requirements of appropriate professional bodies, thus providing the basis for further professional development and lifelong learning.
5. To provide programmes which meets the FHEQ at Masters Levels and which takes appropriate account of the subject benchmark statements in Computing.
6. For those students taking a programme with study abroad, to provide students with the opportunity to develop their skills within an international setting.

## **11 Learning Outcomes**

The programmes provide opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in areas of computing science. The programmes outcomes cover to the benchmark statements for Computing.

The strategy of the degree programmes is to give a broad coverage of the subject of Computing Science in Stages 1 and 2, and then to offer specialisation at Stage 3 and Stage 4 in the form of a wide range of optional modules.

The following identifies the generic Intended Learning Outcomes for the programmes. There will be variation depending on the nature of the study abroad (if that is part of the programme), and the options taken at Stage 3 and Stage 4.

### **Knowledge and Understanding**

On completing either of the programmes students should have gained and be able to demonstrate knowledge and understanding of:

- A1. A diverse range of programming paradigms and languages supported by programming language principles
- A2. The principles of software engineering
- A3. The theoretical and mathematical foundations of Computing Science
- A4. Techniques for the development of data representations and algorithms
- A5. Computer and network organisation and hardware architectures
- A6. Professional issues, including legal and ethical aspects of professional practice, professional development, social roles and effects of computing systems
- A7. Research techniques
- A8. Advanced technological foundations of networked systems, in depth and breadth
- A9. Middleware and integration standards, platforms and advanced issues
- A10. Fundamental networked and internet protocols and algorithms
- A11. Techniques for networked and Internet programming, including advanced topics
- A12. Solutions for secure, reliable and trusted networked and internet computing, including trust and dependability enhancements

### **Teaching and Learning Methods**

Lectures are the main way of imparting knowledge and understanding (A1-A12), but tutorials are also used. Practical classes feature prominently, especially to support the Stage 1 programming modules (A1, A2). Visiting speakers provide seminars on aspects of being an IT professional (A6). Students are expected to contribute to their own learning experience by independent reading. They are provided with references to books which are categorised as *essential*, *recommended*, and *background* reading, as well as scientific papers and other learning materials including appropriate web URLs. In addition, when taken, the study abroad will involve the development of knowledge within an international setting.

### **Assessment Strategy**

Knowledge and understanding are assessed by means of closed and open book written examinations, and coursework, including team and individual project reports and log books (A1-A12).

<b>Intellectual Skills</b>	
<p>On completing either of the programmes students should have skills in the areas of:</p> <ul style="list-style-type: none"> <li>B1. Carrying out the process of software development, including: the analysis of system requirements; the production of system specifications using appropriate models and techniques; software validation and verification</li> <li>B2. The knowledge of a variety of advanced (especially object-oriented) programming languages and paradigms</li> <li>B3. The knowledge of a variety of computer-based (including operating) systems</li> <li>B4. The application of theoretical concepts of computing science in the design and analysis of systems and algorithms</li> <li>B5. The identification and implementation of appropriate algorithms and data structures</li> <li>B6. The knowledge and provision of network information services</li> <li>B7. Designing and building realistic networked systems and Internet applications</li> <li>B8. Identification and trade-off analysis of issues such as security, trust and reliability in networked systems and internet applications</li> <li>B9. Integration of a wide variety of protocols and platforms, including trust and dependability computing</li> <li>B10. Ability to grasp and articulate the key contributions of emerging and future networked and internet computing technologies</li> </ul>	
<b>Teaching and Learning Methods</b>	
<p>B1-B6 feature prominently in all modules. In particular a team project at Stage 2 and Stage 4 gives students experience of working with others (see D7 below) to engineer a complex piece of software (B2, B4, B5). Individual projects at Stage 3 and Stage 4 will require students to develop large pieces of software to a customer's requirements (B1, B2, B4, B5). In all other modules, coursework is used to develop these skills (B1-B10).</p>	
<b>Assessment Strategy</b>	
<p>Subject-specific and professional skills are assessed by coursework (B1-B10).</p>	
<b>Practical Skills</b>	
<p>On completing either of the programmes students should have:</p> <ul style="list-style-type: none"> <li>C1. The ability to conduct investigations using the technical and professional literature</li> <li>C2. The ability to use and evaluate appropriate tools and techniques</li> <li>C3. The ability to undertake empirical evaluation of alternative solutions</li> <li>C4. The ability to solve problems by identifying suitable approaches using computer-based systems</li> <li>C5. The ability to reason abstractly about the structure and behaviour of computer systems</li> </ul>	
<b>Teaching and Learning Methods</b>	
<p>All modules involve coursework, much of which involves problem solving skills (C4). This is especially so in the team and individual projects, where students need to select, evaluate and apply appropriate tools and techniques (C2). Here and elsewhere students will need to investigate possible alternatives in the technical and professional literature (C1, C3), and to reason about computer systems (C5).</p>	
<b>Assessment Strategy</b>	
<p>Practical skills are assessed by a range of coursework (reports, design documents, etc.) (C1-C5).</p>	
<b>Transferable/Key Skills</b>	
<p>On completing either of the programmes students should be able to use the following skills:</p> <ul style="list-style-type: none"> <li>D1. Written communication, particularly technical writing</li> <li>D2. Problem solving</li> <li>D3. Interpersonal communication</li> <li>D4. Initiative</li> <li>D5. Oral presentation</li> <li>D6. Adaptability</li> </ul>	

- D7. Teamwork
- D8. Numeracy
- D9. Planning and organisation
- D10. Computer literacy

### **Teaching and Learning Methods**

Key skills feature throughout both programmes; teamwork in the Stage 2 and Stage 4 team projects (D7); oral presentation, interpersonal communication, and planning and organisation in the Stage 3 and Stage 4 research methods and individual project modules, as well as the Stage 2 and Stage 4 team projects (D3, D5, D9); written communication in all modules, but especially in the Stage 2 and Stage 4 team projects, and the Stage 3 and Stage 4 individual projects (D1); numeracy is covered by a Mathematics module at Stage 1 and exercises in the programming modules (D8); computer literacy, problem solving, initiative and adaptability are necessarily covered throughout both programmes (D2, D4, D6, D10).

### **Assessment Strategy**

Key (transferable) skills are assessed by both written and oral presentations (D1-D10). Teamwork in the Stage 2 and Stage 4 team projects is assessed both by the module leader at team oral presentations and by a team monitor (a member of teaching staff) who attends team formal meetings (D5, D7).

## **12 Programme Curriculum, Structure and Features**

### **Basic structure of the programme**

Both programmes have 4 Stages and when a study abroad is taken (if it is part of the programme), the whole of Stage 3 may be taken at a partner institution that offers an equivalent programme (curriculum, structure, features) for this stage. Students are required to take 120 credits at each Stage. In the case of students who take the study abroad option the calculation of credits will be done according to the credit conversion rules included in the partnership agreement with the partner institution.

Students take six compulsory 20-credit modules in each of Stages 1 and 2. The teaching of these modules is split equally across semesters 1 and 2 so that students study 60 credits in each semester. At Stage 1 students who passed A-level Mathematics (or equivalent) take MAS1404 Mathematics for Computing Science. Those without this qualification take CSC1013 Foundation Mathematics for Computing Science. For both sets of students further mathematical concepts are covered as and where necessary in modules at each Stage. However, certain modules at Stage 3, as indicated in the Degree Programme Handbook, may not be available to those students who have taken CSC1013.

A wide range of optional modules is available to G4XX students at Stage 3, however all must take the 40-credit individual project module CSC3095. An equivalent project module will be compulsory for study abroad students.

Students study a group of core modules and a range of optional modules covering advanced computer science topics at Stage 4, however all students must take the 30-credit individual project module CSC8498.

Relevant sections of the School's Placements Handbook which conforms to the University Policy and Procedure for Assuring the Standards of Work-based and Placement Learning will apply in case of students taking the programme with study abroad.

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

Students on G4XY will study Stage 3 abroad at one of our ERASMUS or other overseas partner institutions.

To gain BCS accreditation students are required to have studied Stage 2 and at least one of Stage 3 and Stage 4 at the Newcastle campus. Students must have also passed a problem-solving project at the first attempt.

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

<http://www.ncl.ac.uk/regulations/programme/2009-2010/comp.php>

**13 Criteria for admission***Entry qualifications*

Minimum Grade B GCSE Mathematics

*A-Level Subjects and Grades*

Typical ABC at A2. We do not require any particular A-Level subjects to have been taken. Those without A-Level Mathematics will take CSC1013 in Stage 1.

We accept applications for APL.

*Alternative entry qualifications*

We accept a wide range of alternative qualifications, such as IB 30 points, BTEC National Diploma 2 Distinctions and 1 Merit, Scottish Highers BBBB, appropriate Access, Bridging and Foundation programmes, and the INTO programmes that prepare overseas students for study in the UK.

*Admissions policy/selection tools*

Applicants are invited to visit the School for interview and to see the University and to meet staff and current undergraduates on the programmes. Attendance is strongly encouraged but not compulsory and applicants who are not based in the UK are not expected to attend.

*Additional Requirements*

None.

*Level of English Language capability*

For applicants whose first language is not English we ask for IELTS 6.5 or TOEFL 90 (Internet-based).

**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 support*

The initial point of contact for a student is with a lecturer or module leader, or their tutor (see below) for more generic issues. Thereafter the Degree Programme Director or Head of School may be consulted. Issues relating to the programmes may be raised at the Staff-Student Committee, and/or at the Board of Studies.

### *Pastoral support*

All students are assigned a personal tutor whose responsibility is to monitor the academic performance and overall well-being of their tutees. In addition the University offers a range of support services, including 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 Union Society 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 Service 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.

## **15 Methods for evaluating and improving the quality and standards of teaching and learning**

### *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 Board of Studies and/or the School Teaching and Learning Committee. 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 programmes and reports to Faculty Teaching and Learning Committee. The FTLC takes an overview of all programmes within the Faculty and reports any Faculty or institutional issues to the University 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 programmes, 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 students' views on the quality of the learning and teaching. The results from student surveys are considered as part of the Annual Monitoring and Review of the programmes and any arising actions are captured at programme and School / institutional level and reported to the appropriate body.

*Mechanisms for gaining student feedback*

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

*Faculty and University Review Mechanisms*

The programmes are subject to the University's Internal Subject Review process. Every five years degree programmes in each subject area are subject to periodic review. This involves both the detailed consideration of a range of documentation, and a two-day review visit by a review team which includes an external subject specialist in addition to University and Faculty representatives. Following the review a report is produced, which forms the basis for a decision by University Teaching and Learning Committee on whether the programmes reviewed should be re-approved for a further five year period.

*Accreditation reports*

The Stage 1, Stage 2 and Stage 3 parts of the programmes covered by this Degree Programme Specification were accredited by the British Computer Society in October 2008.

*Additional mechanisms*

None.

## **16 Regulation of assessment**

*Pass mark*

The pass mark is 40 for stages 1, 2, and 3. The pass mark is 50 for Stage 4.

*Course requirements*

Progression is subject to the University's Undergraduate Progress Regulations and Undergraduate Examination Conventions. In summary, students must pass, or be deemed to have passed, 120 credits at each Stage. Limited compensation in up to 40 non-core credits and down to a mark of 35% is possible at each of Stages 1, 2, and 3, and there are re-assessment opportunities, with certain restrictions.

Students are also required to have an average mark of 60 for Stage 2 and also for Stage 3 to proceed to Stage 4. If this requirement is not satisfied the student will be offered to change their degree programme to BSc Computing Science and continue their studies for, or finish their studies with, that degree.

*Weighting of stages*

The marks from **Stages 2, 3, and 4** will contribute to the final classification of the degree

The weighting of marks contributing to the degree for **Stages 2, 3, and 4** is **20 : 40 : 40**

*Common Marking Scheme*

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

	<b>Modules used for degree classification (DC)</b>	<b>Modules not used for degree classification</b>
<40	Fail	Failing
40-49	Third Class	Basic
50-59	Second Class, Second Division	Good
60-69	Second Class, First Division	Very Good
70+	First Class	Excellent

The University employs a common marking scheme for Stage 4, which is specified in the Integrated Masters Examination Conventions, namely

	<b>Modules used for degree classification</b>	<b>Modules not used for degree classification</b>
<50	Fail	Failing
50-59	Second Class, Second Division	Good
60-69	Second Class, First Division	Very Good
70+	First Class	Excellent

*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:

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

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

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

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 programmes 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.



## Mapping of Intended Learning Outcomes onto Curriculum/Modules

Notes:

1. MAS1404 and CSC1013 are alternative compulsory modules.

Intended Learning Outcome	Module codes (Compulsory in Bold)
A1	<b>CSC1011, CSC1012, CSC1014, CSC1016, CSC2011, CSC2012, CSC2013, CSC2014, CSC2015</b> , CSC3004, CSC3005, <b>CSC3095</b> , CSC3101, CSC3103, CSC3202, CSC8103, CSC8201, CSC8104, CSC8106, CSC8204, CSC8108,
A2	<b>CSC1011, CSC1012, CSC1014, CSC2011, CSC2012, CSC2013, CSC2014, CSC2015, CSC2016</b> , CSC3001, CSC3002, CSC3003, CSC3005 <b>CSC3095</b> , CSC3201, CSC3202, CSC3301 CSC3304 CSC3303 CSC8105, CSC8202, CSC8101, CSC8102, CSC8106, CSC8203,
A3	<b>CSC1013/MAS1404, CSC1016, CSC2012, CSC2014, CSC2015, CSC2016</b> , CSC3004, CSC3101, CSC3201, CSC3503, <b>MAS1404</b> , CSC8105,
A4	<b>CSC1011, CSC1012, CSC2011, CSC2012, CSC2015, CSC2016</b> , CSC3002, CSC3005 CSC3006, CSC3101, CSC3201, CSC3503, CSC8103, CSC8101, CSC8105,
A5	<b>CSC1016, CSC2013</b> , CSC3001, CSC3002, CSC3003, CSC3005, CSC8104, CSC8102
A6	<b>CSC1015, CSC2015</b> , CSC3002, CSC3003, CSC3006, CSC3101, CSC3202, CSC3303, CSC8201, CSC8202, CSC8203, CSC8206,
A7	<b>CSC3095, CSC8498</b>
A8	CSC3101, CSC8104, CSC8204, CSC8201
A9	CSC3104, CSC8201, CSC8106, CSC8108
A10	CSC3101, CSC3104, CSC8103, CSC8105, CSC8202
A11	CSC3103, CSC3104, CSC8108, CSC8203, CSC8106, CSC8204, CSC8102, CSC8101, CSC8104
A12	CSC3101, CSC3102, CSC3104, CSC8201, CSC8105, CSC8202, CSC8102, CSC8204
B1	<b>CSC1011, CSC1012, CSC1014, CSC1016, CSC2011, CSC2012, CSC2014, CSC2015</b> , CSC3001, CSC3002, CSC3003, CSC3004, CSC3005 <b>CSC3095</b> , CSC3103, CSC3201, CSC3202, CSC3303, CSC8206, CSC8104, CSC8106, CSC8204, CSC8108,
B2	<b>CSC1011, CSC1012, CSC1014, CSC1016, CSC2011, CSC2015</b> , CSC3005 <b>CSC3095</b> , CSC3102, CSC3103, CSC8108, CSC8204, CSC8104, CSC8206
B3	<b>CSC1011, CSC1012, CSC1014, CSC1016, CSC2011, CSC2012, CSC2013, CSC2015</b> , CSC3001, CSC3002, CSC3005 <b>CSC3095</b> , CSC3103, CSC3202, CSC8201, CSC8105, CSC8106, CSC8102, CSC8203, CSC8206
B4	<b>CSC1012, CSC1013/MAS1404, CSC1014, CSC1016, CSC2012, CSC2014, CSC2015, CSC2016</b> , CSC3003, CSC3004, CSC3005 CSC3201, CSC8102, CSC8103, CSC8202, CSC8103, CSC8206
B5	<b>CSC1011, CSC1012, CSC1014, CSC1016, CSC2011, CSC2014, CSC2015, CSC2016</b> , CSC3001, CSC3002, CSC3005 CSC3103, CSC3201, CSC3202, CSC3503, CSC8104, CSC8202, CSC8101, CSC8206, CSC8108,

B6	<b>CSC1011, CSC1012, CSC1014, CSC1015, CSC1016, CSC2012, CSC2013, CSC2015,</b> CSC3003, CSC3005 CSC3101, CSC3103, CSC3104, CSC3202, CSC8206, CSC8108, CSC8104
B7	CSC3101, CSC3103, CSC8108, CSC8203, CSC8101
B8	CSC3101, CSC3102, CSC8201, CSC8202, CSC8102, CSC8204
B9	CSC3103, CSC3104, CSC8104, CSC8105, CSC8102, CSC8106, CSC8108, CSC8103
B10	CSC3102, CSC3103, CSC3104, CSC8203, CSC8204, CSC8201
C1	<b>CSC1015, CSC1016, CSC2012, CSC2013, CSC2014, CSC2015,</b> CSC3001, CSC3002, CSC3003, CSC3006, <b>CSC3095,</b> CSC3102, CSC3103, CSC3201, CSC3202, CSC8205, CSC8201, <b>CSC8498,</b> CSC8206, CSC8203, CSC8106, CSC8202
C2	<b>CSC1011, CSC1012, CSC1013/MAS1404, CSC1014, CSC1015, CSC1016, CSC2011, CSC2012, CSC2013, CSC2014, CSC2015, CSC2016,</b> CSC3001, CSC3003, CSC3004, CSC3005 CSC3006, <b>CSC3095,</b> CSC3101, CSC3102, CSC3103, CSC3201, CSC3202, CSC8206, CSC8104, CSC8105, CSC8101, CSC8204, CSC8108, CSC8203, <b>CSC8498</b>
C3	<b>CSC1011, CSC1012, CSC1014, CSC1015, CSC1016, CSC2011, CSC2012, CSC2014, CSC2015, CSC2016,</b> CSC3003, CSC3006, <b>CSC3095,</b> CSC3102, CSC3103, CSC3201, CSC3202, CSC3503, CSC8108, CSC8203, CSC8204, CSC8104, CSC8103, CSC8206, <b>CSC8498</b>
C4	<b>CSC1011, CSC1012, CSC1013/MAS1404, CSC1014, CSC1016, CSC2011, CSC2012, CSC2014, CSC2015, CSC2016,</b> CSC3002, CSC3003, CSC3005 CSC3006, <b>CSC3095,</b> CSC3101, CSC3102, CSC3103, CSC3201, CSC3202, CSC3503, CS8206, <b>CSC8498,</b> CSC8106, CSC8204, CSC8108,
C5	<b>CSC1016, CSC2011, CSC2012, CSC2013, CSC2014, CSC2015, CSC2016,</b> CSC3001, CSC3002, CSC3004, CSC3006, CSC3103, CSC3202, CSC3503, CSC8203, CSC8106, CSC8105, CSC8202, CSC8201, CS8206, <b>CSC8498</b>
D1	<b>CSC1011, CSC1012, CSC1014, CSC1015, CSC1016, CSC2012, CSC2013, CSC2014, CSC2015,</b> CSC3002, CSC3003, CSC3006, <b>CSC3095,</b> CSC3201, CSC3202, CSC3303 CSC3503, CSC8205, <b>CSC8498,</b> CSC8201, CSC8202, CSC8206, CSC8203,
D2	<b>CSC1011, CSC1012, CSC1013/MAS1404, CSC1014, CSC1015, CSC1016, CSC2011, CSC2012, CSC2013, CSC2014, CSC2015, CSC2016,</b> CSC3001, CSC3002, CSC3004, CSC3005 CSC3006, <b>CSC3095,</b> CSC3101, CSC3102, CSC3103, CSC3201, CSC3202, CSC3503, CSC8206, CSC8106, CSC8105, CSC8103, <b>CSC8498</b>
D3	<b>CSC1015, CSC2014, CSC2015,</b> CSC3004, CSC3006, <b>CSC3095,</b> CSC3303, CSC8205, <b>CSC8498,</b> CSC8201, CSC8202, CSC8206, CSC8203,
D4	<b>CSC1011, CSC1012, CSC1013/MAS1404, CSC1014, CSC1015, CSC1016, CSC2012, CSC2014, CSC2015,</b> CSC3002, CSC3003, CSC3004, CSC3005 CSC3006, <b>CSC3095,</b> CSC3102, CSC3201, CSC3202, CSC8205, <b>CSC8498,</b> CSC8201, CSC8202, CSC8206, CSC8203,

D5	<b>CSC1015, CSC2015, CSC3006, CSC3095, CSC8205, CSC8498, CSC8206,</b>
D6	<b>CSC1011, CSC1012, CSC1013/MAS1404, CSC1014, CSC1015, CSC1016, CSC2015, CSC2016, CSC3006, CSC3095, CSC3102, CSC3202, CSC3095, CSC8205, CSC8498, CSC8206,</b>
D7	<b>CSC1015, CSC2015, CSC3004, CSC3006, CSC3303, CSC8206,</b>
D8	<b>CSC1013/MAS1404, CSC2014, CSC2015, CSC2016, CSC3005 CSC3102, CSC3201, CSC3202, CSC8105,,</b>
D9	<b>CSC1011, CSC1012, CSC1014, CSC1015, CSC1016, CSC2012, CSC2014, CSC2015, CSC3003, CSC3006, CSC3095, CSC3201, CSC3202, CSC3303, CSC8205, CSC8498, CSC8206, (GC), CSC8203, CSC8101</b>
D10	<b>CSC1011, CSC1012, CSC1014, CSC1015, CSC1016, CSC2011, CSC2012, CSC2014, CSC2015, CSC2016, CSC3001, CSC3002, CSC3003, CSC3005 CSC3095, CSC3103, CSC3201, CSC3202, CSC8205, CSC8498, CSC8206, CSC8201, CSC8202, CSC8204, CSC8108, CSC8203,</b>