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A copy of these Guidelines is available on the BCS website at http://www.bcs.org/accreditation
1 Overview of Accreditation

1.1 INTRODUCTION

These guidelines describe the approach and content the Society would expect to find in programmes put forward for accreditation.

The British Computer Society, under its Royal Charter, is required to establish and maintain standards of competence, conduct and ethical practice for information systems professionals. This duty includes the responsibility to develop and maintain standards for the educational foundation appropriate to people wishing to follow a career in information systems. The Society initially established the BCS Professional Examinations to provide an educational foundation for people wishing to become members of the professional body. As the number and range of programmes at HND and degree level increased, a system of exemptions for appropriate programmes was put in place to provide alternative routes to membership. The Society became a licensed body of the Engineering Council (UK) in 1990 and is able to accredit for Chartered Engineer or Incorporated Engineer level. The Society became a licensed body of the Science Council in 2004 and is able to accredit for Chartered Scientist. In 2004, the Society introduced Chartered IT Professional and the requirements for programmes wishing to be accredited are detailed in this document.

The Society undertakes a programme of visits to Higher Education Institutions (HEIs) and other higher education providers to consider their programmes for accreditation leading to CITP, CEng or IEng and/or CSci status.

The Society believes that preparation for a role as an information systems professional requires a sound theoretical understanding and practical experience. It also believes that students must gain a full appreciation of the wider issues of ethical standards, legislative compliance and the social and economic implications of information systems practice. Therefore, in considering programmes for accreditation, the Society looks for programme content which specifically aims to assist students in gaining a sound academic grounding in the discipline and an understanding of the professional issues relevant to their future working lives.

Where there are small numbers of students on a programme, the Society will not normally consider it for accreditation but suggests that students apply for membership/registration individually (see Section 5). If a named award with few students enrolled forms a pathway through a more general programme of study then the Society may well deal with such programmes as part of the overall accreditation of that group of awards.

The British Computer Society criteria for CITP registration can be found at www.bcs.org

The Engineering Council (UK) publishes the criteria for registration in its document UK Standards for Professional Engineering Competence (UKSPEC) at www.engc.org.uk

The Science Council publishes criteria for registration in its document Guidelines for
1.2 SCOPE

The variety and range of the ways in which computer systems and related computer communications are deployed grows daily. It is now commonplace to read about systems which

- underpin all aspects of business, administration and frequently areas such as management, education, health, forensics, and security
- feature as embedded systems or information systems in engineering devices and applications, often involving some element of criticality, e.g. involving safety or security
- are used in furthering discovery in science, e.g. through biologically inspired computing, e-science, or Grid computing

In many of these situations the presence of computing is vital to the extent that the enterprise is dependent on the computing provision and could not function without it. Through these various contributions and through developments in technology itself, many of the recent advances in engineering, in science and in other areas are attributed to computing. In the future these trends are likely to proceed with even greater speed and subsequently greater impact.

To properly underpin all of these endeavours, it is important to have personnel who truly understand the principles associated with building and maintaining high quality systems – the key characteristic attributes being usable, reliable, secure, safe, dependable as well as being easy to test, maintain, manage, and so on. For those wishing to build systems that are truly useful, it is often vital to have an understanding of aspects of the domain of use. Acquiring that insight may involve a deep understanding of the application domain and this may involve considerable study; as applications become more sophisticated, this will be even more important.

To design, construct, deploy, manage and maintain such systems effectively and efficiently demands a deep understanding of the relevant principles in the specific context of computer-based systems. The inherent nature of such systems normally calls for an approach to design that is based on the application of engineering principles, founded on appropriate scientific and technological insights. It also implies an appreciation of the concept of risk, knowledge of how to manage risk, and an understanding of how people interact with computer systems, often in the presence of human frailty. Further, it includes the use of standards and attention to a range of issues incorporated in the BCS Code of Conduct and its Code of Good Practice that are periodically reviewed in the light of experience. The current versions of these are available at [www.bcs.org](http://www.bcs.org)

1.3 SCOPE OF THE CURRICULUM

The Society supports the Computing Benchmark Statement established by the Quality Assurance Agency for Higher Education (QAA) and the Benchmark Standard for Taught Masters degrees in Computing established by the Council of Professors and Heads of Computing (CPHC) in that they are broad statements about standards for the
award of honours and masters degrees in the computing area and embrace the BCS definitions above.

The undergraduate subject benchmark defines a conceptual framework that gives computing its coherence and identity; it is about the intellectual capability and understanding that should be developed through the study of computing to honours degree level, the techniques and skills which are associated with developing an understanding of computing, and the level and intellectual demand and challenge which are appropriate to honours degree study of computing. As such it forms an excellent framework which the Society and higher education can use to support the accreditation process. Benchmarking information can be found at www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp

Programmes being put forward for accreditation should ensure that there is significant study and learning outcomes as defined by the cognate area of computing as set out in Section 2.1 of the QAA Computing Benchmark. Evidence will be required showing that the principles of programme design set out in Section 3 of the QAA Computing Benchmark have been followed. As informed by the Society’s Codes of Conduct and Good Practice, it is expected that students are exposed to, and developed in, both professional and ethical outlook and practice.

1.4 PROGRAMME STRUCTURES

Within higher education, each course or module that contributes to a degree/diploma programme carries a number of credit points and its learning outcomes are assigned to a level. The QAA publishes a qualification framework for England, Wales and Northern Ireland; in Scotland the corresponding framework is the Scottish Credit and Qualifications Framework (SCQF). Both define 120 credit points as equivalent to one full-time academic year of undergraduate study and 180 credit points as equivalent to a year long full-time masters programme. In the QAA framework, each of an HND and a foundation degree is seen as containing 240 credit points, an ordinary degree as containing 300 credit points, an honours degree as containing 360 credit points, an integrated masters as containing 480 credit points and an MSc as containing 180 credit points. The QAA frameworks assign levels 1, 2 and 3 (C, I, H) to the corresponding year of study in an undergraduate programme and level 4 (M) to postgraduate study.

In Scotland, where entry to tertiary education can be after only five years of secondary education, undergraduate degree programmes typically require an additional 120 credit points over and above the credit point requirements for elsewhere in the UK. In addition, the SCQF credit levels differ from those used in England, Wales and Northern Ireland. Levels 7 and 8 in Scotland correspond to levels 1 and 2 in the rest of the UK. The junior honours are at level 9 or 10 and final year honours courses are at level 10. Masters degrees are at level 11. Thus, normally, an honours degree in Scotland requires 480 points (with a minimum of 120 at level 10 and a further 120 at level 9 or 10) and an integrated masters 600 credit points (with a minimum of 120 at level 11), whilst an ordinary/pass degree requires 360 points (with a minimum of 60 at level 9).

NB: In the near future, QAA levels 1, 2, 3 and 4 are expected to become levels 4, 5, 6 and 7.
1.5 ACCREDITATION

The Society is able to consider accreditation of programmes of study for the following:
- Chartered IT Professional (CITP)
- Chartered Engineer (CEng)
- Chartered Scientist (CSci)
- Incorporated Engineer (IEng)

The Society, through its Academic Accreditation Committee, considers each programme in relation to one or more of:
- the criteria described by the Society for routes to Chartered IT Professional
- the criteria described in UK-SPEC, which defines the routes to Chartered and Incorporated Engineer registration of the Engineering Council UK
- the criteria described by the Science Council for routes to Chartered Scientist

The exemplifying academic qualification for CITP is an accredited honours degree in the computing field together with further learning beyond graduation.

The exemplifying academic qualification for IEng is an accredited ordinary degree in the computing field.

The exemplifying academic qualification for both CEng and CSci is an accreditedhonours degree followed by an accredited specialist masters programme or appropriate further learning to masters level; or through an integrated masters programme.

The term accredited as partially meeting the educational requirement for CITP/CEng/IEng/CSci registration indicates that a programme is accredited as contributing to the academic requirement for the relevant registration.

Thus an accredited programme is one which meets some or all of the educational requirements for registration with the British Computer Society as a Chartered IT Professional, with the Engineering Council as a Chartered or Incorporated Engineer or with the Science Council as a Chartered Scientist. Some programmes may meet the requirements for more than one of the above. Individual registration details are explored further in section 5.2 of these guidelines.

Any programme which is put forward for accreditation must meet the relevant programme criteria as detailed in section 2.2, as well as being developed and delivered in an environment which meets the criteria as detailed in section 2.1.

In addition to meeting the criteria outlined in section 2.2, not more than one-third of the material in an accredited programme may normally lie outside the scope of the QAA Computing Benchmark as summarised in table 1.5. Programmes that do include more than one third of their material from other disciplines may nevertheless be accreditable, provided that this material is integrated into the programme in support of the computing outcomes and that this is demonstrated by the mapping of the Intended Programme learning Outcomes to the BCS criteria.

The Society does not accredit Generalist Masters Degrees, however candidates
holding such degrees will be considered under the individual route to Membership as detailed in section 5.
<table>
<thead>
<tr>
<th>Programme Type</th>
<th>Minimum Computing Credit Points</th>
<th>Notes</th>
<th>Accreditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HND, Foundation Degree, Associate Degree</td>
<td>160 of which a minimum of 80 are at level 2*</td>
<td>The programme should provide breadth in computing</td>
<td>Accredited as partially meeting the requirements for CITP</td>
</tr>
<tr>
<td>Joint Honours Degree</td>
<td>160 of which a minimum of 80 are at level 2*</td>
<td>The programme should provide breadth in computing</td>
<td>Accredited as partially meeting the requirements for CITP</td>
</tr>
<tr>
<td>Ordinary Degree</td>
<td>200 of which a minimum of 40 are at level 3*</td>
<td>The programme should provide breadth in computing</td>
<td>Accredited as partially meeting the requirements for CITP and meeting the requirements for IEng</td>
</tr>
<tr>
<td>Honours Degree</td>
<td>240 of which a minimum of 80 are at level 3*</td>
<td>The programme should provide breadth and depth in the area of computing and should be influenced by relevant research and industry trends, with adequate theoretical underpinning</td>
<td>Accredited as meeting the requirements for CITP and partially meeting the requirements for CEng and/or CSci</td>
</tr>
<tr>
<td>Specialist Masters Degree</td>
<td>120 at level 4*</td>
<td>The programme should provide in-depth study of at least one specialist area of computing and build on the equivalent of an honours degree</td>
<td>Accredited as partially meeting the requirements for CEng and/or CSci and/or satisfying the further learning requirements for CITP</td>
</tr>
<tr>
<td>Integrated Masters Degree</td>
<td>320 of which a minimum of 60 are at level 4*</td>
<td>The programme should provide breadth and depth in the area of computing and should be influenced by relevant research and industry trends, with adequate theoretical underpinning. In addition it should provide in-depth study of at least one specialist area of computing</td>
<td>Accredited as meeting the requirements for CITP and CEng and/or CSci and satisfying the further requirement for CITP</td>
</tr>
</tbody>
</table>

*NOTE: The differences in the minimum computing points between the England, Wales and Northern Ireland requirements and the Scottish requirements are detailed in Section 1.4 on page 3

A course will not be considered for an alternative level of accreditation than that outlined in the table.
2 Criteria for Accreditation

In carrying out the accreditation process for programmes, the Society looks at a range of issues which relate to the department in which the programmes are delivered as well as a range of programme-specific issues. Appendix IV of the Guidelines identifies these requirements.

2.1 DEPARTMENTAL CRITERIA

The quality of a programme depends not only on its content, syllabuses and assessment, but also on the environment in which it is developed, implemented and improved.

The Society requires evidence of a clear quality assurance framework at departmental and institutional level, and where appropriate, at inter-institutional level. Evidence is also required that this framework is in active use and that it involves the participation of students; such evidence could take the form of output from externally conducted institutional reviews and internal reviews of the department.

The Society requires evidence that the students on the programme are adequately supported by appropriate learning resources which include academic, administrative and technical staff, computing and communication facilities which include appropriate software tools, and specific and general learning facilities including access to appropriate digital and print-based information and effective academic advice and guidance.

2.2 PROGRAMME CRITERIA

Programmes (as described by a Programme Specification) accredited for CITP, CEng and CSci are expected to meet the requirements set out in the relevant benchmark statement, namely the QAA Computing Benchmark for honours degrees and the CPHC Taught Masters Benchmark for masters degrees. The Engineering Council's outcomes for IEng apply for degrees seeking accreditation for IEng. The Society seeks evidence that:

- the course is up to date and conveys a sense of excitement about the subject
- the design and review of the programmes are based on the appropriate computing benchmark document
- departmental reviews undertaken by the HEI base their findings on the relevant benchmark and involve external experts in the field
- external examiners are using the benchmark in making their judgement
- the programme learning outcomes appropriately reflect the abilities and skills defined in the appropriate benchmark

Some programmes may meet the criteria for more than one of CITP, CEng, CSci and IEng. The following diagram summarises the situation:
All programmes must contain sufficient computing content as set out in Table 1.5 of these guidelines.

'Cognitive, practical and transferable skills need to be placed in the context of the programme of study. The implicit interplay between these identified skills both within and across these three categories is recognised.

The extent to which students acquire these abilities will depend on the emphasis of individual programmes.

In examining the programme design, HEI regulations and student achievement the Society seeks to ensure that the benchmark outcomes are not compromised, e.g. where compensation is permitted under an HEI regulations, the Society may require that certain modules cannot be compensated.

Within this document, the following terms are used with the meaning stated:

*Understanding* is the capacity to use concepts creatively, for example in problem solving, in design, in explanations and in diagnosis

*Knowledge* is information that can be recalled

*Skills* are acquired and learned attributes which can be applied almost automatically

*Awareness* is general familiarity, albeit bounded by the needs of the specific discipline

The following items in italics are taken from the QAA Computing Benchmark Statement 2.2.1 Requirements for undergraduate programmes

Graduates should have been assessed on the following abilities, which are based on the QAA Computing Benchmark.
Computing-related cognitive abilities

- Knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications as appropriate to the programme of study
- The use of such knowledge and understanding in the modelling and design of computer-based systems for the purposes of comprehension, communication, prediction and the understanding of trade-offs
- The ability to recognise and analyse criteria and specifications appropriate to specific problems, and plan strategies for their solution
- The ability to analyse the extent to which a computer-based system meets the criteria defined for its current use and future development
- The ability to deploy appropriate theory, practices and tools for the specification, design, implementation and evaluation of computer-based systems
- The ability to recognise the legal, social, ethical and professional issues involved in the exploitation of computer technology and be guided by the adoption of appropriate professional, ethical and legal practices

Computing-related practical abilities

- The ability to specify, design or construct computer-based systems
- The ability to evaluate systems in terms of general quality attributes and possible trade-offs presented within the given problem
- The ability to recognise any risks or safety aspects that may be involved in the operation of computing equipment within a given context
- The ability to deploy effectively the tools used for the construction and documentation of computer applications, with particular emphasis on understanding the whole process involved in the effective deployment of computers to solve practical problems
- The ability to operate computing equipment effectively, taking into account its logical and physical properties

Transferable skills

- An ability to work as a member of a development team recognising the different roles within a team and different ways of organising teams
- The development of transferable skills that will be of value in a wide range of situations. These include problem solving, working with others, effective information management and information retrieval skills, numeracy in both understanding and presenting cases involving a quantitative dimension, communication skills in electronic as well as written and oral form to a range of audiences and planning self-learning and improving performance as the foundation for on-going professional development

2.2.2 Requirements for postgraduate programmes

Specialist masters programmes are characterised by the fact that they involve deep study of computing by building on

- prior study of some aspect of computing itself, or
- another discipline which provides important underpinning for, or insight into, the discipline of IT/Computing, or
- an application domain where there are important benefits that flow from a close marriage with computing
Graduates should have been assessed on the following abilities:

**Computing-related cognitive abilities**

- demonstrate a systematic understanding of the knowledge of the domain of their programme of study, with depth being achieved in particular areas, and this should include both foundations and issues at the forefront of the discipline and/or professional practice in the discipline; this should also include an understanding of the role of these in contributing to the effective design, implementation and usability of relevant computer-based systems
- demonstrate a comprehensive understanding of the essential principles and practices of the domain of the programme of study including current standards, processes, principles of quality and the most appropriate software support; the reasons for their relevance to the discipline and/or professional practice in the discipline; and an ability to apply these
- understand and be able to participate within the professional, legal and ethical framework within which they would have to operate as professionals in their area of study

**Computing-related practical abilities**

- consistently produce work which applies and is informed by research at the forefront of the developments in the domain of the programme of study; this should demonstrate critical evaluation of aspects of the domain
- demonstrate the ability to apply the principles and practices of the discipline in tackling a significant technical problem; the solution should demonstrate a sound justification for the approach adopted as well as a self-critical evaluation of effectiveness but also a sense of vision about the direction of developments in aspects of the discipline

**Transferable skills**

- carry out a critical review of the literature, current developments and available software as well as the associated software processes
- support the development of the self-directed learner who can set goals and select appropriate knowledge, skills, etc. as well as supporting tools for a particular purpose
- recognise and be able to respond in an appropriate way to opportunities for innovation
- participate effectively in the peer review process
- undertake risk management associated with a range of activities

### 2.2.3 Supplementary requirements for CEng

Graduates should have been assessed on the following abilities:

**Computing-related cognitive abilities**

- A knowledge and understanding of the use of engineering principles, founded on appropriate scientific and technological disciplines
- A knowledge and understanding of mathematical principles necessary to underpin their programme of study and the ability to apply mathematical methods, tools and notations proficiently in the analysis and solution to problems
- A knowledge and understanding of the commercial and economic context of the development, use and maintenance of computer-based systems
- A knowledge of the management techniques which may be used to achieve
objectives within a computing context

At masters level

- A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their field of study
- A comprehensive understanding of techniques applicable to their own research or advanced scholarship

Computing-related practical abilities

- Use appropriate processes to specify, design, implement, verify and maintain computer-based systems, including working with technical uncertainty
- Investigate and define a problem, identify constraints, understand customer and user needs, identify and manage cost drivers, ensure fitness for purpose and manage the design process and evaluate outcomes
- Apply the principles of appropriate supporting disciplines

At masters level

- Develop and apply new technologies
- Show originality and innovation
- Make general evaluation of commercial risk through some understanding of the basis of such risks

Integrated masters level group project

Within an integrated masters programme students undertake a group project, giving them the opportunity to demonstrate:

- Their ability in applying practical and analytical skills present in the programme as a whole
- Innovation and/or creativity
- Synthesis of information, ideas and practices to provide a quality solution together with an evaluation of that solution
- That the project meets a real need in a wider context and has an identifiable customer (at least potentially) other than the student
- The ability to work as a team to deliver a significant piece of work
- Critical self evaluation of the process

The learning outcomes required for accreditation for CEng can be found at [http://www.engc.org.uk/documents/Regulations_for_Registration.pdf](http://www.engc.org.uk/documents/Regulations_for_Registration.pdf)

2.2.4 Supplementary requirements for CSci

Graduates should have been assessed on the following abilities:

Computing-related cognitive abilities

- A knowledge and understanding of the use of scientific principles in the creation, use and support of information systems for the solution of practical problems
- Knowledge and understanding of mathematical principles necessary to underpin their programme of study and to enable them to apply mathematical methods, tools and notations proficiently in the analysis and solution to problems
- Either the ability to use computational modelling for the purposes of comprehension of scientific phenomena or the ability to apply the scientific method in the solution of problems in the domain of computing
- Understanding of the relevant contextual scientific knowledge
At masters level
- A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their field of study
- A comprehensive understanding of techniques applicable to their own research or advanced scholarship

**Computing-related practical abilities**
- Use theoretical and practical methods in the analysis and solution of problems
- Conduct appropriate research to enable the design and development of computing systems
- Apply principles and practices of appropriate related scientific disciplines

At masters level
- Show critical awareness of current problems and/or insights
- Show originality and innovation

The requirements for accreditation for CSci can be found by following the links at [www.sciencecouncil.org](http://www.sciencecouncil.org)

### 2.2.5 Supplementary requirements for IEng

Programmes accredited by the BCS in fulfilment of the exemplifying educational requirements for IEng will normally be ordinary BEng or BSc programmes, in the computing field (typically Computer Systems Engineering or Software Engineering).

Graduates should have been assessed on the following abilities:

**Computing-related cognitive abilities**
- Knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications as appropriate to the programme of study
- A knowledge of the scientific principles underpinning relevant current technologies and their evolution
- A knowledge of mathematics necessary to support the application of key engineering principles
- Understanding of the principles of managing computing processes
- A knowledge of the commercial and economic context of the development, use and maintenance of computer-based systems
- A knowledge of the management techniques which may be used to achieve objectives within a computing context

**Computing-related practical abilities**
- The ability to deploy appropriate theory, practices and tools for the specification, design and implementation of computer-based systems according to customer and user needs and use innovation and creativity in a practical context
- The ability to evaluate systems in terms of general quality attributes and possible trade-offs presented within the given problem
- The ability to recognise and analyse criteria and specifications appropriate to specific problems, and plan strategies for their solution
- The ability to model and analyse the extent to which a computer-based system meets the criteria defined for its current use and future development
The ability to recognise the legal, social, ethical and professional issues involved in the exploitation of computer technology and be guided by the adoption of appropriate professional, ethical and legal practices

The ability to recognise any risks or safety aspects that may be involved in the operation of computing equipment within a given context

The ability to deploy effectively the tools used for the construction and documentation of computer applications and to use and apply information from technical literature

The learning outcomes required for accreditation for IEng can be found at http://www.engc.org.uk/documents/Accreditation_HE_Progs.pdf

2.2.6 Individual projects

Students must be provided with written guidance on all aspects of the project, including selection, conduct, supervision, milestones, format of the report and the criteria for assessment.

All projects should reflect the aims and learning outcomes which characterise the programme to which they contribute as set out in the programme specification.

Project reports

Individual projects must involve the production of a report which should include:

- elucidation of the problem and the objectives of the project
- an in-depth investigation of the context and literature, and where appropriate, other similar products (this section is likely to be emphasised less for an IEng project)
- where appropriate, a clear description of the stages of the life cycle undertaken
- where appropriate, a description of how verification and validation were applied at these stages
- where appropriate, a description of the use of tools to support the development process
- where appropriate, a critical appraisal of the project, indicating the rationale for any design/implementation decisions, lessons learnt during the course of the project, and evaluation (with hindsight) of the project outcome and the process of its production (including a review of the plan and any deviations from it)
- a description of any research hypothesis
- in the case of group projects, a clear indication of the part played by the author in achieving the goals of the project
- references

Undergraduate projects

It is expected that within an undergraduate programme, students will undertake a major project, normally in their final year and normally as an individual activity, giving them the opportunity to demonstrate:

- their ability to apply practical and analytical skills present in the programme as a whole
- innovation and/or creativity
- synthesis of information, ideas and practices to provide a quality solution together with an evaluation of that solution
- that their project meets a real need in a wider context
- the ability to self-manage a significant piece of work
- critical self-evaluation of the process
In the event of this major activity being undertaken as a group enterprise, there is a requirement that the assessment is such that the individual contribution of each student is measured against the above learning outcomes.

For accreditation for CITP, CEng or CSci, the individual project should be worth at least 30 credit points at level 3 or above. The project must be passed without compensation.

For accreditation for IEng the individual project should be worth at least 20 credit points at level 2 or above. The project must be passed without compensation.

**Postgraduate projects (including integrated masters programmes)**

Projects at postgraduate level may be similar in scope to undergraduate projects but should reflect the ethos of advanced study and scholarship appropriate to a masters degree.

Postgraduate projects must give students the opportunity to demonstrate:

- a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of the specialist academic discipline
- a comprehensive understanding of techniques applicable to their own research or advanced scholarship
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level
- critical self-evaluation of the process

Specialist masters programme projects should be worth at least 60 credit points at level M and must be passed without compensation.

Integrated masters programme projects should be worth at least 30 credit points at level M and be passed without compensation.
3 The Process

3.1 OVERVIEW

These regulations and processes are overseen by the Society’s Academic Accreditation Committee (AAC). This Committee is drawn from the Society’s membership who have experience of Higher Education and/or the computing industry. The Committee is served by a permanent secretariat, located within the Education Department at BCS Headquarters. Its work is also supported through a Register of Assessors, who are Chartered IT Professionals of the Society.

The accreditation process involves departmental visits and documentary submissions. For each visit, the Society constitutes an appropriate Panel which explores in detail the programmes being put forward, along with the context in which they are delivered. On this basis a report with recommendations is presented to the Committee. The Committee makes the final decision on such recommendations.

Chartered IT Professionals who would like to support the work of the Committee are encouraged to make themselves known to the Education Department.

3.2 APPLYING FOR ACCREDITATION

The Society has a rolling programme of visits to HEIs to consider programmes for accreditation. HEIs included in the programme are normally visited at least every five years and are contacted by the Society when a visit is due. Visits usually consider the entire range of relevant programmes offered at the HEI. Typically, a visit should be scheduled to take place in the year following the final year of the existing accreditation, so that a continuous approved status may be achieved. Where, for whatever reason, a visit cannot take place within this timeframe, minimal backdating of accreditation will be considered. It is helpful if departments keep the BCS Education Department well informed of changes they foresee with regard to any scheduled visit.

For HEIs seeking accreditation for the first time, the following steps will be taken:

- the HEI discusses the process and the programmes to be considered with the Education Department at BCS Headquarters
- the Education Department arranges an advisory visit by an assessor and a report is produced for use by the Society and the HEI. The report will contain information about any issues which would need to be addressed before a full visit could take place
- if the Education Department is satisfied that it is appropriate, a full visit is arranged when it can be fitted into the programme

It is recognised that changes to programmes will be introduced between the visits to an HEI. If major changes are made to programme learning outcomes, a number of different arrangements may be made and the advice of the Education Department should be sought in such situations.

Once the need and timing for a visit is established, the Education Department will request that supporting documentation (see Appendix III) is provided in an appropriate timescale.
**Documentation requirements**

The Society requires one of two types of documentation in support of the application for accreditation depending on previous accreditation outcomes.

Normally, HEIs are required to submit a full set of documentation (Type 1 documentation), as set out in Appendix III.

However, following a visit whereby a period of full (5-year) accreditation for all its programmes was granted, an HEI may be offered the opportunity to submit Type 2 documentation (see Appendix III) based on a Reflective Evaluation Document (RED), produced as part of an Internal Review, for example. It is not essential that an HEI take up such an offer; it may prefer not to have such interdependence between the internal review and the BCS accreditation activity. In such cases the HEI may opt to submit Type 1 documentation.

### 3.3 VISITS TO HIGHER EDUCATION INSTITUTIONS

For each visit, a visiting Panel is established. The size of the Panel will depend on the number of programmes being submitted for accreditation. Where there are a large number of programmes, a Panel normally has four members; for a smaller submission, a Panel will have three members. At least one member of each Panel will have experience of industry. All Panels will contain Chartered IT Professionals. Two members of the Panel will be drawn from the AAC and the remaining from the Register of Assessors. All Panels will be supported by a member of the Education Department’s secretariat.

The Panel will be briefed by the secretariat on the current accreditation status of programmes within the department being visited. This will be accompanied by a statement of what is being requested by the department, the previous visit report or the advisory visit report in the case of a first visit and a copy of the documentation submitted by the department.

In the case of a Type 2 visit, the Panel formulate the agenda from a scrutiny of the submitted RED and associated documentation. The agenda is forwarded to the HEI in advance of the visit. In certain cases this may be accompanied by a request for a provision of specific evidence emerging from the agenda. This would normally include a sample of assessments as set and project work. Should the RED be unsatisfactory, further documentation may be required, or the Panel may revert the visit to Type 1. Since Type 2 documentation requires a longer processing time, in the event of Type 2 documentation arriving late, the Society may only allow a Type 1 documentation and visit.

The Panel will use the Assessor Criteria as shown in Appendix IV to guide discussion on the day of the visit.

The Panel will expect to meet with a cross-section of appropriate staff as well as students during the visit. Thus HEIs are advised to select their attendees so that full and productive discussions ensue, guided by the previously communicated agenda.
3.4 ARRANGEMENTS FOR THE VISIT

Departments are required to provide details of the room and the building to which the visiting Panel should report on arrival and supply maps of the campus indicating where parking is available. If parking permits are required, the department must contact the Education Department in good time to arrange the permits.

It is difficult for the Panel to move between rooms during the course of the day as they will have quantities of documentation and overnight bags with them. Therefore, the Panel should be based in the same room (with boardroom style layout) for all of the day, except during the tour of facilities. A second meeting room should also be made available for the morning of the visit should the Panel decide to run parallel discussion sessions. If the room chosen is too small to accommodate a meeting with students from all programmes, further accommodation will be required for this meeting. It is essential that the base room can be locked while the Panel is touring the facilities and it should include a telephone with an outside line. It is also helpful if the base room can be sited within easy reach of conveniences.

3.5 JOINT VISITS WITH OTHER ENGINEERING OR SCIENCE INSTITUTIONS

Some programmes may be appropriate for accreditation by both the British Computer Society and another institution or a group of institutions (e.g. through the Engineering Accreditation Board (EAB)). Joint accreditation visits can be arranged with the lead being taken by one of the institutions selected by the department(s) being visited.

If the visit is being undertaken jointly with another institution, the arrangements may be different and more than one room may be required for all or part of the day. HEIs will be notified if this is the case.

Departments interested in a joint visit should contact both bodies. Because of the difficulty in reconciling visit schedules, it is advisable to discuss joint visit plans well in advance of the proposed date of the event.

3.6 THE VISIT REPORT

A detailed draft report will be written following the visit, summarising the discussions that took place and the views put forward by the visiting Panel and the HEI. The report serves the dual purpose of informing the AAC about the programme, and informing the HEI of the views of the visiting Panel. Thus formally, the Panel makes recommendations to the AAC via the report, and it is the AAC which decides upon the outcomes.

Before the report goes to the AAC, the draft report is sent to the department for comment on factual content only. The response of the HEI to these recommendations will be taken into account by the AAC in considering the future status of the programme.

Once the report and its recommendations have been discussed by the AAC and the outcomes agreed, a full copy of the final report, together with a letter stating the main terms of the decision, is sent to the Vice-Chancellor or Principal of the HEI and also to the school or department. As the decision is not given until the AAC has approved and finalised the report, there may be a delay between the visit and the decision; in most cases this should not exceed six months.
The department can seek clarification of the outcomes of any visit from the Education Department once the decision has been communicated to the HEI. Where a department seeks support in addressing any particular matter, the Education Department may be able to offer advice or engage a member of the AAC to be of direct assistance to the department.

Items agreed by the AAC to be dealt with under a 90-day response will permit the department to make an appropriate documentary submission to the BCS within a 90-day period from the publication of the final report. Upon receiving the department’s response within the 90-day period, the visiting Panel will consider this and make recommendations to the AAC, thus allowing the AAC to discuss and take cognisance of all outcomes. Such outcomes will be communicated to the HEI and department in the same manner as above.

Where the agreed outcome was to allow the department to progress matters in its own time, these matters will remain on file. Thus should a department take up such an invitation, the Education Department will proceed with the submission accordingly. However should the department choose not to progress a particular matter, then the item will be noted at any subsequent visit.

### 3.7 FEES AND CHARGES

Visits will only be made to HEIs which are Educational Affiliates of the Society and which are up to date with their subscription payments. The annual affiliate fee for educational HEIs covers the cost of a quinquennial visit to the institution. For additional visits, including visits to multiple campuses of the same institution, the Education Department should be consulted about fees and charges.

### 3.8 CONFIDENTIALITY

The Society treats the work of the Academic Accreditation Committee as confidential. No reports or minutes of meetings will be shown to anyone with the exception of members of the Committee or of the Accreditation Panel, a representative of the Society’s secretariat, the Engineering Council, the Science Council or designated members of the Society in the case of an appeal. However, the Society has a Memorandum of Understanding with the QAA which encourages HEIs to share their BCS accreditation reports and outcomes with all stakeholders and as such, no restrictions are placed on the use of the report by the HEI to which it is sent. The MoU can be viewed at [www.bcs.org/accreditation](http://www.bcs.org/accreditation)
4 Outcomes

4.1 POSSIBLE OUTCOMES

Regardless of the type of documentation supplied (Type 1 or Type 2), the accreditation criteria is used to help in determining the outcome of accreditation (see Appendix IV). The outcome for each programme will be drawn from the table in Section 1.5 of these guidelines. There are a number of types of outcome for a programme, following a visit:

1. 90-day response: Prior to any decision being taken on the outcomes, the HEI is requested to respond to identified issues within 90 days of the receipt of the final report. The Society will indicate what is required by way of a response and the outcome will be one of the outcomes numbered 2, 3 or 4 below.

2. Maximum period: The accreditation is for the maximum period of five intakes.

3. Reduced period: Normally, issues are identified with the programmes or the learning environment which the Society believes can/will be corrected. Thus accreditation is for a period of less than five years. There is a range of reasons why a reduced term may be given, e.g. to align with existing accreditations, or because of issues identified within the programme(s). The HEI may be asked to submit a report at the end of the specified period or receive a further accreditation visit before consideration can be given to extending the accreditation to a maximum of five intakes.

4. Not accredited: The programme fails to meet the requirements for accreditation. The reasons for failing to meet the requirements will be identified and the HEI is able to apply again at some future date.

Conditions may also be applied to programmes, for example that a specific module should be undertaken. Graduates applying for BCS Membership/Registration will be expected to inform the Membership Department that they satisfied any applicable conditions.

The Panel will also recommend whether the next visit will be Type 1 or Type 2.

4.2 PROGRAMMES FROM WHICH NO STUDENTS HAVE YET GRADUATED

New programmes are normally accredited only when at least one cohort of students has graduated, since it is the final standard achieved which determines whether the programme is appropriate for accreditation. Initial accreditation may be granted for new programmes which seem likely to meet the appropriate criteria but which have not yet produced graduates. It is not a guarantee of future accreditation but is given where the Society is confident that the programme is likely to meet its objectives and to merit future consideration. In such cases, accreditation will only be granted for one period to cover a specific output of graduates. However, should a programme, other than those of one year duration, be in its first year the Society will not normally review it.

When the first cohort graduates, HEIs should provide the Society with a documentary submission normally containing external examiners’ reports, examination papers and samples of projects. Confirmation of the full period of accreditation will be based on this evidence and backdating to the first intake will be considered.
5 Individual Route to Membership and Registration

Institutions are urged to encourage their students to become student members of the Society and their graduates to seek the appropriate grade of membership.

Having an accredited degree facilitates membership and/or registration for Chartered/Incorporated status. In addition, having a degree accredited for CITP would not preclude becoming CEng/CSci if the post graduation career includes appropriate further learning and experience.

5.1 MEMBERSHIP

The full academic requirement for Professional Membership of the Society is an accredited honours degree. However, a range of other academic qualifications can provide a route to BCS Membership; full details can be found on the BCS website at http://www.bcs.org/membership

There are also routes to BCS Professional Membership for applicants who have not gained an accredited award. One such route is via the Individual Exemption procedure, which is available to applicants whose programmes have not been considered by the Society. Cases are assessed on an individual basis and details can be found on the BCS website at http://www.bcs.org/individual-exemptions

5.2 REGISTRATION

The full academic requirement for Chartered IT Professional is an accredited honours degree together with further learning beyond graduation. The full academic requirement for Chartered Scientist or Chartered Engineer is an accredited honours degree together with an accredited masters degree, or an integrated masters degree. The full academic requirement for Incorporated Engineer is an accredited non-honours degree.

Just as there are routes to Professional Membership for an applicant who does not already hold an accredited award, so there are routes to Chartered IT Professional, Chartered and Incorporated Engineer and Chartered Scientist status for an applicant whose awards are not accredited. Such an application is considered via the Individual Case Procedure. The candidate’s educational profile is assessed, resulting in a recommendation as to how any deficiencies may be addressed.