



## Course Descriptions

# **BBSI Pre-Masters Courses in Science, Mathematics & IT**

1. BBSI delivers its Science, Mathematics & IT courses in different formats to suit the personal requirements and specific training objectives of its clients. These courses are available in 3 different categories:

### **Specialised Courses:**

Designed for those on gap-year or short-term study who wish to return home with enhanced professional skills and knowledge for career purposes.

### **University Foundation Courses:**

Designed for those preparing to study a first degree at a UK university.

### **Pre-Masters Courses:**

Designed for those wishing to prepare for a postgraduate course in the UK.

The following describes the **Pre-Masters** courses for those wishing to study Science, Mathematics & IT.

## **Pre-Masters Courses in Science, Mathematics & IT**

2. BBSI offers flexible **Certificate** (12-week), **Higher-Certificate** (24-week), **Extended Higher-Certificate** (36-week), **Diploma** (36-week) and **Extended Diploma** (48-week) Pre-Masters courses. Our Pre-Masters courses in Science, Mathematics & IT are designed for international graduates with either a first degree or equivalent, or a higher diploma and relevant work experience. The minimum English-language entry levels range from <sup>¶</sup>**IELTS [Academic]** 4.5 to 5.5, ie CEFR B1 to B2, depending on the course selected. The aim of these courses is to enable graduates to secure a suitable placing for their postgraduate degree. Participants will acquire the <sup>¶</sup>**Advanced Study Skills** necessary for postgraduate entry to a British university and the syllabus includes extensive **IELTS Examination Preparation**.

3. **Professional Qualifications.** BBSI is an **Accredited Centre** for preparation for the <sup>§</sup>**International Computer Driving Licence**<sup>®</sup> (**ICDL**<sup>®</sup>). The **ICDL**<sup>®</sup> verifies practical competence in computer skills, and provides individuals with an internationally-recognised qualification. Depending on the study option selected, students will follow the full **ICDL**<sup>®</sup> syllabus and can elect to obtain this additional qualification. For students intending to undertake the optional **ICDL**<sup>®</sup> examination, we would recommend a minimum of 12 weeks' preparation prior to the examination date.

4. **UK University Placement.** While undertaking Pre-Masters courses at BBSI and acquiring the qualifications and advanced study skills necessary for postgraduate study at university, students are provided with extensive counselling and guidance in all aspects of study at universities in the UK, and given full assistance with the university application process. All students who successfully complete their course and achieve the required **IELTS [Academic]** level for entry are assured of a university place prior to graduation from BBSI.

5. **University Entry Requirements.** Students seeking to enter a Masters degree course at a university in the UK must be a minimum of 20 years of age and have achieved an equivalent of **IELTS [Academic] 6.0** in English. Moreover, applicants must have full records of their High-School education, diploma, or first degree education. Copies of these academic records, as well as evidence of work experience, should be submitted to BBSI at the time of enrolment.

6. **Course Objectives.** The course objectives are to:

- \* Fully prepare students academically for entry to a Masters course related to science, mathematics & IT at a university in the UK.
- \* Provide students with the specialised language of science, mathematics and IT, to enable them to communicate effectively in a related international environment.
- \* Assist students in completing the university application process in order to secure a placement on the postgraduate degree course of their choice at a university in the UK.
- \* Enable students to acquire the necessary **Advanced Study Skills** for postgraduate study at a UK university.
- \* Provide preparation for the **IELTS [Academic] Examination**.
- \* Enable students to develop a sound understanding of current theory & practice in science, mathematics & IT.
- \* Facilitate the development of effective technical English communication skills.
- \* Ensure students build appropriate vocabulary related to science, mathematics & IT.
- \* Provide preparation for an internationally recognised IT qualification.

7. **Study Options.** The study options for these Pre-Masters courses and the respective minimum English-language entry level for each are as follows:

**Certificate Course:** 12 weeks/IELTS 5.5, ie CEFR B2.

**Higher-Certificate Course:** 24 weeks/IELTS 5.5, ie CEFR B2.

**Extended Higher-Certificate Course:** 36 weeks/IELTS 4.5, ie CEFR B1.

**Diploma Course:** 36 weeks/IELTS 5.0, ie CEFR B2.

**Extended Diploma Course:** 48 weeks/IELTS 4.5, CEFR B1.

8. **Minimum Age.** 20 years.

9. **Main Course Entry Dates.** Sep, Jan, Apr, or Jul; however, flexible entry dates are available for these courses.

10. **Course Elements.** The full Diploma and Extended Diploma courses provide students with 5 main components: science, mathematics, IT, **Advanced Study Skills** and **IELTS Examination Preparation**. The **Science, Mathematics & IT** syllabus incorporates specialised elements within the following topics:

***Mathematics***

- |   |  |
|---|--|
| * <i>mathematical vocabulary</i>        | * <i>describing motion</i>                   |
| * <i>angles, bearings &amp; maps</i>    | * <i>statistics &amp; probability theory</i> |
| * <i>sequences &amp; series</i>         | * <i>differentiation &amp; integration</i>   |
| * <i>2 &amp; 3 dimensional geometry</i> | * <i>graphs of functions</i>                 |
| * <i>applied mathematics</i>            | * <i>analysing data</i>                      |
| * <i>motion &amp; vectors</i>           |  |

***Applied Science & Engineering***

- \* *force & effect*
- \* *nuclear physics*
- \* *environmental science*
- \* *materials & stresses*

- \* *light & radio waves*
- \* *atomic theory and chemical reactions*
- \* *refining of raw materials*
- \* *electricity, electromagnetism & electronics*

***Technology***

- \* *security*
- \* *applications*

- \* *materials & systems*
- \* *human factor/needs/values/aesthetics*

***General Science***

- \* *research methods*
- \* *problem solving*

- \* *writing scientific reports*
- \* *reading & interpreting scientific information*

***Computers & IT***

- \* *SQL*
- \* *binary system*
- \* *web design with HTML*
- \* *information & effective communication*
- \* *computer architecture*
- \* *concepts of information & computing technology*

- \* *Microsoft Office applications*
- \* *operating systems*
- \* *software engineering*
- \* *object-oriented programming with Java*
- \* *using a computer effectively & managing files*

**11. Course Details.**

**Pre-Masters Certificate**

The BBSI Pre-Masters Certificate study option in Science, Mathematics & IT is designed for those students who already have a firm offer of a place on a Masters course at a UK university, and who have excellent High-School grades, a diploma or first-degree qualification, and an English-language level equivalent to IELTS 5.5/CEFR B2. This 12-week course enables participants to develop their technical and **Advanced Study Skills** in shorter time, and to prepare for the **IELTS [Academic] Examination**. The course leads to a **BBSI Pre-Masters Certificate** in Science, Mathematics & IT; moreover, students will have the opportunity to sit the **IELTS [Academic] Examination** as often as is required.

**Course Duration.** 12 weeks.

**Minimum English-Language Entry Level.** IELTS 5.5/CEFR B2 .

**Course Code.** PMT.

**Award.** Academic achievement is ascertained by means of continuous assessment.

**BBSI Pre-Masters Certificate** in Science, Mathematics & IT

**Optional External Examination.** Additional examination fees apply. **IELTS** examinations are held monthly.

**IELTS [Academic]**

**Course Structure & Content.** Students study for one academic term (12 weeks) comprising 30, forty-five minute lessons (22.5 hours total) weekly. Course breakdown is as follows:

10 lessons weekly in Science & Mathematics  
10 lessons weekly in Information Technology  
10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Course Syllabus.** Students seeking to start the 12 week Pre-Masters Certificate course in January or July would follow Weeks 25-36, whilst those commencing the same course in September or April would study Weeks 37-48. Those wishing to study for longer periods should contact BBSI to confirm the course syllabus for their study.

## **Pre-Masters Higher-Certificate**

The BBSI Pre-Masters Higher-Certificate study option in Science, Mathematics & IT is designed for those students with excellent High-School grades, a diploma or first-degree qualification, and an English-language level equivalent to IELTS 5.5/CEFR B2. This 24-week course enables participants to develop their technical and **Advanced Study Skills**, and to prepare for the **IELTS [Academic] Examination**. The course leads to a **BBSI Pre-Masters Higher-Certificate** in Science, Mathematics & IT and an **<sup>1</sup>NCFE Certificate** in Science, Mathematics & IT. Moreover, students will have the opportunity to sit the **IELTS [Academic] Examination** as often as is required.

**Course Duration.** 24 weeks.

**Minimum English-Language Entry Level.** IELTS 5.5/CEFR B2.

**Course Code.** HCPMT.

**Awards.** Academic achievement is ascertained by means of continuous assessment.

**BBSI Pre-Masters Higher-Certificate** in Science, Mathematics & IT  
**NCFE Certificate** in Science, Mathematics & IT

**Optional External Examination.** Additional examination fees apply. **IELTS** examinations are held monthly.

### **IELTS [Academic]**

**Course Structure & Content.** Students study for 2 academic terms (24 weeks), each comprising 30, forty-five minute lessons (22.5 hours total) weekly. Course breakdown is as follows:

10 lessons weekly in Science & Mathematics  
10 lessons weekly in Information Technology  
10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Course Syllabus.** Students seeking to start the 24 week Pre-Masters Higher-Certificate course in January or July would follow Weeks 25-36 and Weeks 37-48 of the syllabus outlined in the table below, whilst those commencing the same course in September or April would study Weeks 37-48 and Weeks 25-36. Those wishing to study for longer periods should contact BBSI to confirm the course syllabus for their study.

## **Pre-Masters Extended Higher-Certificate**

The BBSI Pre-Masters Extended Higher-Certificate study option in Science, Mathematics & IT is designed for students with an English language level equivalent to IELTS 4.5/CEFR B1. This 36-week course enables participants to develop **Advanced Study Skills** and undertake additional **IELTS Examination Preparation**, prior to moving on to more specialised studies in the second and third terms. This course leads to a **BBSI Pre-**

**Masters Higher-Certificate** in Science, Mathematics & IT. Moreover, students will have the opportunity to acquire the **ICDL<sup>®</sup>** and to sit the **IELTS [Academic] Examination** as often as is required.

**Course Duration.** 36 weeks.

**Minimum English-Language Entry Level.** IELTS 4.5/CEFR B1.

**Course Code.** HCEPMT.

**Award.** Academic achievement is ascertained by means of continuous assessment.

**BBSI Pre-Masters Higher-Certificate** in Science, Mathematics & IT

**Optional External Examinations.** Additional examination fees apply. **IELTS** examinations are held monthly.

**ICDL<sup>®</sup>**  
**IELTS [Academic]**

**Course Structure & Content.** Students study for 3 academic terms (36 weeks), each comprising 30, forty-five minute lessons (22.5 hours total) weekly. The Extended Higher-Certificate course comprises the full **ICDL** syllabus. Course breakdown is as follows:

**Term 1**

30 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**, comprising:  
10 lessons weekly in grammar & functions  
2 lessons weekly in vocabulary development  
4 lessons weekly in reading & writing skills  
4 lessons weekly in speaking, listening & pronunciation skills  
10 lessons weekly in **Advanced Study Skills & IELTS Examination** practice

**Term 2**

10 lessons weekly in Science & Mathematics  
10 lessons weekly in Computer Studies  
10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Term 3**

10 lessons weekly in Science & Mathematics  
10 lessons weekly in Information Technology  
10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Course Syllabus.** Students seeking to commence the 36 week Pre-Masters Extended Higher-Certificate course in January or July would follow Weeks 1-12, Weeks 13-24, and Weeks 25-36 of the syllabus outlined in the table below, whilst those commencing the same course in either September or April, would study Weeks 1-12, Weeks 13-24, and Weeks 37-48. Those wishing to study for longer periods should contact BBSI to confirm the course syllabus for their study.

## **Pre-Masters Diploma**

The BBSI Pre-Masters Diploma study option in Science, Mathematics & IT is designed for students with an English language level equivalent to IELTS 5.0/CEFR B2. This 36-week course enables participants to develop **Advanced Study Skills** and undertake additional **IELTS Examination Preparation**, prior to moving on to more specialised studies. The course leads to a **BBSI Pre-Masters Diploma** in Science, Mathematics & IT,

and an **NCFE Certificate** in Science, Mathematics & IT. Moreover, students will have the opportunity to acquire the **ICDL<sup>®</sup>** and to sit the **IELTS [Academic] Examination** as often as is required.

**Course Duration.** 36 weeks.

**Minimum English-Language Entry Level.** IELTS 5.0/CEFR B2.

**Course Code.** DPMT.

**Awards.** Academic achievement is ascertained by means of continuous assessment.

**BBSI Pre-Masters Diploma** in Science, Mathematics & IT  
**NCFE Certificate** in Science, Mathematics & IT

**Optional External Examinations.** Additional examination fees apply. **IELTS** examinations are held monthly.

**ICDL<sup>®</sup>**  
**IELTS [Academic]**

**Course Structure & Content.** Students study for 3 academic terms (36 weeks), each comprising 30, forty-five minute lessons (22.5 hours) weekly. The Diploma course comprises the full **ICDL** syllabus. Course breakdown is as follows:

**Term 1**

- 10 lessons weekly in Science & Mathematics
- 10 lessons weekly in Computer Studies
- 10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Terms 2 & 3**

- 10 lessons weekly in Science & Mathematics
- 10 lessons weekly in Information Technology
- 10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Course Syllabus.** Students seeking to start the 36 week Pre-Masters Diploma course in January or July would follow Weeks 13-24, Weeks 37-48, and Weeks 25-36 of the syllabus outlined in the table below, whilst those commencing the same course in either September or April, would study Weeks 13-24, Weeks 25-36, and Weeks 37-48.

## **Pre-Masters Extended Diploma**

The BBSI Pre-Masters Extended Diploma study option in Science, Mathematics & IT is designed for students with an English language level equivalent to IELTS 4.5/CEFR B1. This full year, 48-week, course enables participants to develop their **Advanced Study Skills** and undertake additional **IELTS Examination Preparation**, prior to moving on to more specialised studies in the second and subsequent terms. The course leads to a **BBSI Pre-Masters Diploma** in Science, Mathematics & IT, and an **NCFE Certificate** in Science, Mathematics & IT. Moreover, students will have the opportunity to acquire the **ICDL<sup>®</sup>** and to sit the **IELTS [Academic] Examination** as often as is required.

**Course Duration.** 48 weeks.

**Minimum English-Language Entry Level.** IELTS 4.5/CEFR B1.

**Course Code.** DEPMT.

**Awards.** Academic achievement is ascertained by means of continuous assessment.

**BBSI Pre-Masters Diploma** in Science, Mathematics & IT  
**NCFE Certificate** in Science, Mathematics & IT

**Optional External Examinations.** Additional examination fees apply. **IELTS** examinations are held monthly.

**ICDL<sup>®</sup>**  
**IELTS [Academic]**

**Course Structure & Content.** Students study for 4 academic terms (48 weeks), each comprising 30, forty-five minute lessons (22.5 hours) weekly. The Extended Diploma course comprises the full **ICDL** syllabus. Course breakdown is as follows:

**Term 1**

30 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**, comprising:  
10 lessons weekly in grammar & functions  
2 lessons weekly in vocabulary development  
4 lessons weekly in reading & writing skills  
4 lessons weekly in speaking, listening & pronunciation skills  
10 lessons weekly in **Advanced Study Skills & IELTS examination** practice

**Term 2**

10 lessons weekly in Science & Mathematics  
10 lessons weekly in Computer Studies  
10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Terms 3 & 4**

10 lessons weekly in Science & Mathematics  
10 lessons weekly in Information Technology  
10 lessons weekly in **Advanced Study Skills & IELTS Examination Preparation**

**Course Syllabus.** Those students seeking to study the Pre-Masters Extended Diploma course would follow the full syllabus outlined in the table below, ie Weeks 1-48.

**IELTS**

***IELTS is the International English-Language Testing System. It measures ability to communicate in English across all 4 language skills - listening, reading, writing and speaking - for people who intend to study or work where English is the language of communication. IELTS is the preferred English-language assessment for universities in English-speaking countries worldwide. Examinations take place monthly in Bournemouth and a place can be secured at the time of enrolment with BBSI. Candidates must book for the examination at least 6 weeks before each examination sitting.***

*(Examination fees for those seeking to undertake external examinations are not included in the BBSI course fees.)*

### Ψ *Advanced Study Skills*

*Postgraduate students require advanced study skills when preparing for study at Masters level:*

- *plagiarism*
- *research skills*
- *Internet-based study*
- *bibliography & referencing*
- *extended writing assignment*
- *critical thinking & independent thought*
- *compilation & statistical analysis*
- *independent learning*
- *seminar skills*
- *presentations*

### § *International Computer Driving Licence®*

*The International Computer Driving Licence® (ICDL®) is an internationally-recognised qualification that verifies practical competence in computer skills in either a professional or personal capacity and is the fastest growing international IT user-qualification. It is designed specifically for those who wish to gain a benchmark qualification in computing to enable them to develop their IT skills and enhance their career prospects. No prior knowledge of IT or computer skills is needed. The ICDL® raises an individual's level of competency in IT & computing skills; improves personal productivity, both at home & at work; requires no prior knowledge of IT or computer skills; and provides individuals with an internationally-recognised qualification.*

*(Examination fees for those seeking to undertake external examinations are not included in the BBSI course fees.)*

### † *NCFE*

*The national awarding body NCFE was established in 1848 and, with the exception of some of the UK's earliest established universities, is the oldest provider of recognised qualifications in the UK. BBSI is a holder of the NCFE Investors in Quality (IIQ) Licence in recognition of the fact that BBSI's training programmes meet the rigorous standards set by NCFE.*

**12. Other BBSI Pre-Masters Courses.** BBSI Pre-Masters Courses are also available in the following subjects:

- \* Management & Business Administration
- \* Marketing, Advertising & Public Relations
- \* Finance & Financial Services
- \* Hospitality Management & Tourism
- \* Legal Studies

**13. Course Weekly Syllabus.** The full 48-week syllabus for the BBSI Pre-Masters courses in Science, Mathematics & IT is tabled below:





# BBSI Pre-Masters Courses: Science, Mathematics & IT



## Typical Weekly Syllabus

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Sample weekly timetable for Weeks 1-12</b>	<i>reading &amp; writing skills development</i>	<i>grammar &amp; functions integrated skills practice</i>	<i>vocabulary development practice activities</i>	<i>grammar &amp; functions integrated skills practice</i>	<i>speaking, listening &amp; pronunciation development practice activities</i>
	<i>grammar &amp; functions integrated skills practice</i>	<i>speaking &amp; listening skills &amp; pronunciation development</i>	<i>grammar &amp; functions integrated skills practice</i>	<i>reading &amp; writing skills development</i>	<i>grammar &amp; functions integrated skills practice</i>
	<i><b>IELTS Examination Practice</b> reading &amp; writing: global &amp; intensive academic reading skills writing skills (describing graphs &amp; processes)</i>	<i><b>IELTS Examination Practice</b> academic skills practice: listening &amp; speaking listening for gist &amp; detail speaking (fluency skills development)</i>	<i><b>IELTS Examination Practice</b> speaking papers 1-3 (practice work): general conversation set topic monologue discussion skills</i>	<i><b>IELTS Examination Practice</b> reading &amp; writing: global &amp; intensive academic reading skills discursive essay writing skills</i>	<i><b>IELTS Examination Practice</b> academic skills practice: listening &amp; speaking: listening skills exam task practice &amp; oral skills development</i>





## BBSI Pre-Masters Courses: Science, Mathematics & IT



### Typical Weekly Syllabus

	<b>Science &amp; Mathematics</b> (10 lessons)	<b>Computer Studies</b> (10 lessons)	<b>Advanced Study Skills &amp; IELTS Examination Preparation</b> Typical 12 week programme (10 lessons)
Week 13	<b>Vocabulary</b> – experimental methods <b>Language</b> - product specifications <b>Study Skills</b> - organising ideas <b>Mathematics</b> – numbers	<b>Using Computers</b> - managing files, adjusting settings, manipulating files, computer security, the world wide web, e-mail	learning styles listening skills – multiple choice note completion
Week 14	<b>Vocabulary</b> - atoms <b>Language</b> - giving instructions <b>Study Skills</b> - preparing a presentation <b>Mathematics</b> - fractions & percentages	<b>Word Processing</b> - formatting	IELTS reading test – headings language awareness – compound nouns, modality IELTS speaking – part 1
Week 15	<b>Vocabulary</b> - chemical symbols <b>Language</b> - damage & repair <b>Study Skills</b> - giving a presentation <b>Mathematics</b> -2-dimensional shapes	<b>Word Processing</b> – mail merge	critical thinking reading skills – reading quickly becoming a critical reader
Week 16	<b>Vocabulary</b> - materials <b>Language</b> - making comparisons <b>Study Skills</b> - focused reading <b>Mathematics</b> - interpreting & drawing graphs	<b>Spreadsheets</b> - elements & principles, editing, formatting	reading skills – applying headings speaking – part 2 perfect tenses, intensifying adverbs
Week 17	Course review <b>Language</b> – vocabulary, progress test <b>Study Skills</b> - effective study <b>Mathematics</b> - course review & progress test	<b>Spreadsheets</b> - multiple sheets, charts	IELTS listening skills – note completion, multiple choice, matching reading skills – global multiple choice yes/ no/ not given
Week 18	<b>Vocabulary</b> - states of matter <b>Language</b> - cause and effect <b>Study Skills</b> - getting the most from lectures <b>Mathematics</b> – algebra	<b>Spreadsheets</b> - review	IELTS speaking – part 3 language awareness – word building, cleft sentences IELTS reading skills – identifying themes, skimming



## BBSI Pre-Masters Courses: Science, Mathematics & IT



### Typical Weekly Syllabus

	<b>Science &amp; Mathematics</b> <i>(10 lessons)</i>	<b>Computer Studies</b> <i>(10 lessons)</i>	<b>Advanced Study Skills &amp; IELTS Examination Preparation</b> <i>Typical 12 week programme (10 lessons)</i>
Week 19	<i>Vocabulary - describing forces Language - using conditionals Study Skills - linking ideas Mathematics - approximation</i>	<i>Presentation - formatting</i>	<i>academic writing skills – planning an essay proof-reading skills – identifying errors in grammar, vocabulary, punctuation, spelling techniques for avoiding errors</i>
Week 20	<i>Vocabulary – electricity Language - making predictions Study Skills - using information sources Mathematics - powers &amp; roots</i>	<i>Presentation – charts, transitions &amp; animations</i>	<i>reading skills – locating information IELTS speaking – part 3 listening skills – summary completion</i>
Week 21	<i>Vocabulary - electronics Language – describing damage Study Skills – good study habits Mathematics – SI system of units</i>	<i>Presentation - formatting</i>	<i>academic writing – commenting on graphs language awareness – grammatical terms, adverbial clauses</i>
Week 22	<i>Vocabulary – course review Language – progress test Study Skills – course review Mathematics – progress test</i>	<i>Presentation – charts, transitions &amp; animations</i>	<i>self-assessment academic reading skills differentiating register &amp; style</i>
Week 23	<i>Vocabulary - energy Language – reporting progress Study Skills – reading skills Mathematics – processing data</i>	<i>Databases – tables, editing, queries</i>	<i>listening skills – sentence completion, note completion IELTS speaking – part 2 IELTS reading skills – sentence completion</i>
Week 24	<i>Vocabulary – chemical equations Language – discussing risk Study Skills – communication technology Mathematics – analysing &amp; reporting data</i>	<i>Databases- reports, forms</i>	<i>language awareness – comparatives, collocations, passive forms IELTS speaking – parts 1,2,3 complete IELTS practice test</i>



## BBSI Pre-Masters Courses: Science, Mathematics & IT



### Typical Weekly Syllabus

	<b>Science &amp; Mathematics</b> (10 lessons)	<b>Information Technology</b> (10 lessons)	<b>Advanced Study Skills &amp; IELTS Examination Preparation</b> Typical 12 week programme (10 lessons)
Week 25	<i>general introduction</i> <b>Chemistry</b> – introduction <b>Physics</b> – atomic structure/bonding <b>Mathematics</b> – describing motion <b>General Science</b> – machine parts	<b>Computing Theory</b> - the user, language focus <b>Database</b> - RDMS introduction <b>Mathematics</b> - introduction & binary addition	<i>learning styles</i> <i>listening skills – multiple choice</i> <i>note completion</i>
Week 26	<b>Chemistry</b> – the periodic table <b>Physics</b> – electricity & current <b>Mathematics</b> – fractions, percentages & decimals <b>General Science</b> – solar system	<b>Computing Theory</b> - computer architecture, language focus <b>Database</b> - E/R diagrams <b>Mathematics</b> - binary subtraction	<i>IELTS reading test – headings</i> <i>language awareness – compound nouns, modality</i> <i>IELTS speaking – part 1</i>
Week 27	<b>Chemistry</b> – states of matter <b>Physics</b> – static electricity <b>Mathematics</b> – approximation <b>General Science</b> – PowerPoint	<b>Computing Theory</b> – peripherals, language focus <b>Database</b> – introduction to SQL <b>Mathematics</b> - binary multiplication	<i>critical thinking</i> <i>reading skills – reading quickly</i> <i>becoming a critical reader</i>
Week 28	<b>Chemistry</b> – types of reactions <b>Physics</b> – work & power <b>Mathematics</b> – angles, bearings & maps <b>General Science</b> - student presentations	<b>Computing Theory</b> – storage, language focus <b>Database</b> - SQL <b>Mathematics</b> - binary division	<i>reading skills – applying headings</i> <i>speaking – part 2</i> <i>perfect tenses, intensifying adverbs</i>
Week 29	<b>Chemistry</b> – revision & progress test <b>Physics</b> – revision & progress test <b>Mathematics</b> – revision & progress test <b>General Science</b> – astronomy	<b>Computing Theory</b> – operating systems, language focus <b>Database</b> - SQL <b>Mathematics</b> - hexadecimal arithmetic	<i>IELTS listening skills – note completion, multiple choice,</i> <i>matching</i> <i>reading skills – global multiple choice</i> <i>yes/ no/ not given</i>
Week 30	<b>Chemistry</b> – water & solubility <b>Physics</b> – waves <b>Mathematics</b> – probability <b>General Science</b> – study of a scientist	<b>Computing Theory</b> - operating systems, language focus <b>Database</b> – SQL	<i>IELTS speaking – part 3</i> <i>language awareness – word building, cleft sentences</i> <i>IELTS reading skills – identifying themes, skimming</i>



## BBSI Pre-Masters Courses: Science, Mathematics & IT



### Typical Weekly Syllabus

	<b>Science &amp; Mathematics</b> (10 lessons)	<b>Information Technology</b> (10 lessons)	<b>Advanced Study Skills &amp; IELTS Examination Preparation</b> Typical 12 week programme (10 lessons)
Week 31	<b>Chemistry</b> – earth cycles <b>Physics</b> – electromagnetic waves <b>Mathematics</b> – sequences & series <b>General Science</b> – important discoveries (1)	<b>Computing Theory</b> – graphic user interfaces, language focus <b>Database</b> – SQL	academic writing skills – planning an essay proof-reading skills – identifying errors in grammar, vocabulary, punctuation, spelling techniques for avoiding errors
Week 32	<b>Chemistry</b> – acids, bases & salts <b>Physics</b> – electromagnetism, motors & generators <b>Mathematics</b> – matrices <b>General Science</b> – important discoveries (2)	<b>Computing Theory</b> - application programs, language focus <b>Database</b> – SQL	reading skills – locating information IELTS speaking – part 3 listening skills – summary completion
Week 33	<b>Chemistry</b> – mechanism of global warming <b>Physics</b> – nuclear energy <b>Mathematics</b> – analysing data <b>General Science</b> – renewable energy	<b>Computing Theory</b> – multimedia, language focus <b>Database</b> - SQL	academic writing – commenting on graphs language awareness – grammatical terms, adverbial clauses
Week 34	<b>Chemistry</b> – revision & progress test <b>Physics</b> – revision & progress test <b>Mathematics</b> – revision & progress test <b>General Science</b> – reporting global warming data	<b>Computing Theory</b> - interview/computing, support officer, computing support, language focus	self-assessment academic reading skills differentiating register & style
Week 35	<b>Chemistry</b> – industrial chemistry <b>Physics</b> – ionising radiations <b>Mathematics</b> – graphs of linear functions <b>General Science</b> – mining & quarrying	<b>Computing Theory</b> - software engineering, people in computing, language focus	listening skills – sentence completion, note completion IELTS speaking – part 2 IELTS reading skills – sentence completion
Week 36	<b>Chemistry</b> – iron; extraction & uses <b>Physics</b> – applications of nuclear energy <b>Mathematics</b> – graphs of functions <b>General Science</b> – nuclear issues	<b>Revision</b> - the future of IT	language awareness – comparatives, collocations, passive forms IELTS speaking – parts 1,2,3 complete IELTS practice test



## BBSI Pre-Masters Courses: Science, Mathematics & IT



### Typical Weekly Syllabus

	<b>Science &amp; Mathematics</b> (10 lessons)	<b>Information Technology</b> (10 lessons)	<b>Advanced Study Skills &amp; IELTS Examination Preparation</b> Typical 12 week programme (10 lessons)
Week 37	<i>Physics – Sound waves, earthquakes Mathematics – numbers, algebra General Science – research &amp; development</i>	<i>Computing Theory - the user, language focus Database - RDMS introduction Mathematics - introduction &amp; binary addition</i>	<i>learning styles listening skills – multiple choice note completion</i>
Week 38	<i>Chemistry – industrial chemistry Physics – chemical equations Mathematics – quadratic equations General Science –materials</i>	<i>Computing Theory - computer architecture, language focus Database - E/R diagrams Mathematics - binary subtraction</i>	<i>IELTS reading test – headings language awareness – compound nouns, modality IELTS speaking – part 1</i>
Week 39	<i>Chemistry – catalysts Physics – cells Mathematics – cubic equations General Science – recycling</i>	<i>Computing Theory - computer applications, language focus Database – introduction to SQL Mathematics - binary multiplication</i>	<i>critical thinking reading skills – reading quickly becoming a critical reader</i>
Week 40	<i>Physics – light &amp; colour Mathematics – integration General Science - student presentations</i>	<i>Computing Theory – peripherals, language focus Database - SQL Mathematics - binary division</i>	<i>reading skills – applying headings speaking – part 2 perfect tenses, intensifying adverbs</i>
Week 41	<i>Chemistry – revision &amp; progress test Physics – revision &amp; progress test Mathematics – revision &amp; progress test General Science – astronomy</i>	<i>Computing Theory - interview/ex-student, language focus Database - SQL Mathematics - hexadecimal arithmetic</i>	<i>IELTS listening skills – note completion, multiple choice, matching reading skills – global multiple choice yes/ no/ not given</i>
Week 42	<i>Physics – electronics Mathematics – triangles circles General Science – writing about processes</i>	<i>Computing Theory - operating systems, language focus Database – SQL</i>	<i>IELTS speaking – part 3 language awareness – word building, cleft sentences IELTS reading skills – identifying themes, skimming</i>



## BBSI Pre-Masters Courses: Science, Mathematics & IT



### Typical Weekly Syllabus

	<b>Science &amp; Mathematics</b> <i>(10 lessons)</i>	<b>Information Technology</b> <i>(10 lessons)</i>	<b>Advanced Study Skills &amp; IELTS Examination Preparation</b> <i>Typical 12 week programme (10 lessons)</i>
Week 43	<b>Chemistry</b> – earth's atmosphere <b>Mathematics</b> – trigonometry <b>General Science</b> – company & contrasting	<b>Computing Theory</b> – graphic user interfaces, language focus <b>Database</b> – SQL	academic writing skills – planning an essay proof-reading skills – identifying errors in grammar, vocabulary, punctuation, spelling, techniques for avoiding errors
Week 44	<b>Mathematics</b> – forces & pressure <b>General Science</b> – trigonometry <b>General Science</b> – resonance	<b>Computing Theory</b> - application programs, language focus <b>Database</b> - SQL	reading skills – locating information IELTS speaking – part 3 listening skills – summary completion
Week 45	<b>Chemistry</b> – electrolysis <b>Mathematics</b> –scatter graphs <b>General Science</b> – Murphy's law	<b>Computing Theory</b> – multimedia, language focus <b>Database</b> - SQL	academic writing – commenting on graphs language awareness – grammatical terms, adverbial clauses
Week 46	<b>Chemistry</b> – revision & progress test <b>Physics</b> – revision & progress test <b>Mathematics</b> – revision & progress test <b>General Science</b> – taking better notes	<b>Computing Theory</b> - interview/computing, support officer, computing support, language focus	self-assessment academic reading skills differentiating register & style
Week 47	<b>Physics</b> – gravity <b>Mathematics</b> – transformations <b>General Science</b> – flotation	<b>Computing Theory</b> - software engineering, people in computing, language focus	listening skills – sentence completion, note completion IELTS speaking – part 2 IELTS reading skills – sentence completion
Week 48	<b>Physics</b> – theory of flight <b>Mathematics</b> – set theory <b>General Science</b> – inventions	<b>Revision</b> - the future of IT	language awareness – comparatives, collocations, passive forms IELTS speaking – parts 1,2,3 complete IELTS practice test