

# Faculties and Departments

## I. University of Birmingham

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## I. University of Birmingham

Read the information from the University of Birmingham's website. Discuss the vocabulary with your colleagues and the teacher where necessary.

### College structure

The University of Birmingham is structured into five colleges, each of which is divided into a number of schools and departments. The **five colleges** are

**Arts and Law,**

**Engineering and Physical Sciences,**

**Life and Environmental Sciences,**

**Medical and Dental Sciences,**

**Social Sciences.**

Each College is led by a **Head of College**, who also acts as a **Pro-Vice Chancellor** and sits on the University Executive Board.

The collaborative nature of the college structure means that there are fewer administrative boundaries between disciplines and working relationships between diverse areas of research have been strengthened.

### College of Engineering and Physical Sciences

Enabling you to study at the leading edge of modern science and engineering, this College covers a broad range of world-leading research, from developing microengines to its particle physics research at CERN. It plays a significant role in creating new knowledge, training new generations of engineers and scientists, and interfacing with industry. It consists of the following nine **Schools**:

Chemistry,

Chemical Engineering,

Civil Engineering,

Computer Science,

Electronic, Electrical and Computer Engineering,

Mathematics,

Mechanical Engineering,

Physics and Astronomy.

### School of Electronic, Electrical and Computer Engineering

#### Undergraduate degree streams

The school offers undergraduate degree programmes in two main streams: **Electronic and Electrical Engineering** and **Computer Systems Engineering**. All the programmes are available as a **three-year BEng** (Bachelor of Engineering) or **four-year MEng** (Master of Engineering). All students have the option of taking a year in industry (earning money and working on a major engineering project with one of the University's industrial partners), or taking a study-abroad year (**a four-year BEng and a five-year MEng**). The school strives to be as

flexible as possible, giving the students the opportunity to tailor their undergraduate study as they wish, to change their degree, and to specialize, throughout their time at Birmingham.

### **Masters taught programmes**

We offer two patterns of **MSc**: a standard 12-month programme and an 18-month programme, which leads to an **MSc with Industrial Studies**.

#### **Standard degree programmes**

Communications Engineering and Networks Masters/MSc \*,  
Digital Entrepreneurship Masters/MSc,  
Electromagnetic Sensor Networks Masters/MSc \*,  
Electronic and Computer Engineering Masters/MSc \*,  
Embedded Systems Masters/MSc \*,  
RF and Microwave Engineering Masters/MSc \*.

Programmes marked \* are also available in combination with Industrial Studies.  
To obtain an MSc, the taught component and the project must both be passed.

### **Postgraduate combined research and teaching degree programme in Electronic, Electrical and Computer Engineering MRes**

This one-year programme is primarily intended for candidates who wish to pursue a career in research, and provides training in research skills appropriate for both industrial and academic careers. One-third of the time is spent on coursework and professional and research skills. The remaining time is devoted to a research project. Students have access to world-class research facilities within the School of Electronic, Electrical and Computer Engineering. The School was awarded 24 points out of 24 points in the last Teaching Quality Assessment, and has research contract funding of around 4 million pounds per year. The latest government audit for research quality showed that 85% of the School's research was judged to be of international standing and 60% internationally leading.

#### **Topics to be discussed:**

1. The University of Birmingham offers a variety of both undergraduate and postgraduate degrees. Give a brief description of these degrees and compare them with the degrees awarded by your University. Do you think a wider choice is preferable? Why/Why not?
2. Does interdisciplinary and interdepartmental cooperation play an important role in both teaching and research at your Faculty? What are its advantages? Can you give examples?

For information on doctoral study see PhD study.

## **II. Notes**

1. In education, the word **course** has two meanings:

- a) a period of study in a particular subject (a degree course in Electrical/Physical Engineering),
  - b) a series of lectures, seminars ... in a particular subject (a course in Machine Design).
- In higher education, the word **course** is much more common than **subject** (used in secondary education).

Do not say: *How many subjects are you taking this year?*

Say: *How many courses are you taking this year?*

2. Do not translate “**cvičení**” as “exercise” when it means a form of instruction. Use “**tutorial**” instead.
3. Courses students have to take are “**obligatory**”, courses they can take but do not have to are “**optional**” (BE) or “**elective**” (AE). The Czech term **povinně volitelný** has no equivalent in the British system. It is usually translated as “**core elective**”.
4. In English your **marks (BE)** or **grades (AE)** are either “**good/high**” or “**low**”, not “bad” (špatné) as in Czech.
5. At most British universities, undergraduates do a **project** while postgraduates write a **thesis/dissertation** (Master’s, PhD/doctoral). Some Czech universities (including the Czech Technical University) have adopted this usage while others (e.g. the University of West Bohemia) have introduced three thesis levels – Bachelor’s, Master’s and PhD/doctoral.  
Do not call your thesis “diploma work”.
6. Do not say:  
*He has elaborated/worked out a Master’s thesis on ....* (Czech: vypracoval, zpracoval)  
Say: *He **has written a Master’s thesis** on ...*
7. The examination students take at the end of their studies is called **the final examination/finals**.
8. The approximate equivalent of the Czech **Ing. degree** is **MSc**. It is, however, inappropriate to use MSc with your name if your degree is Ing. When you consider it important to explain the level of your qualification, you can add a short explanation (approximate equivalent of MSc).

## 9. Academic staff

**UK:** professor, reader, senior lecturer, assistant lecturer, demonstrator

**USA:** professor, associate professor, assistant professor, lecturer, instructor

In the Czech system “**profesor**” and “**docent**” are both advanced academic degrees and denotations of position in the department and are awarded for research as well as teaching activities. In the British and American systems the words “**professor, reader/senior lecturer, associate professor**” are **not academic degrees** but only **denote rank**.

A **tutor** runs a tutorial, i.e. a small teaching and discussion class, and often supervises Bachelor’s and Master’s theses.

**Research staff:** (senior/junior) researcher, research fellow, research scientist

**Teaching and research assistants:** PhD students teaching undergraduate courses and

participating in departmental/faculty research projects

## 10. Ways of **addressing academic staff** or **referring to them**

### Great Britain

a professor Professor (Smith)  
a reader/senior lecturer Doctor (Brown)

### USA

a professor Professor (White)  
an associate/assistant professor Professor (Brown)/Doctor (Brown)

This kind of address is common on **formal occasions**. On **informal occasions**, often after introductions have been made, first names are used.

**Contrary to Czech**, the word “**Mr**” (pan/e) is **not used** together with “Professor/Doctor”.

Wrong: *Mr Professor Smith*

Right: Professor (Smith)

## III. Translation pitfalls

Pitfalls associated with the translation of

**inženýr, inženýrství, technika, technologie, technický, technik**

### inženýr = engineer

In English, this term is not an academic degree; it is often used to describe mechanics, installers, maintenance workers, etc.

### inženýrství = engineering

The word “**engineering**” denotes a profession applying scientific principles to the design, construction and maintenance of cars, engines, and machines (**Mechanical Engineering**), building bridges and roads (**Civil Engineering**), electrical machines and communication systems (**Electrical Engineering**), chemical plants and machinery (**Chemical Engineering**), aircraft (**Aeronautical Engineering**).

In modern times its use has been extended to other fields, always expressing a scientific, creative, theoretically-based approach to the respective fields (e.g. **agricultural engineering, electronics engineering, physical engineering, mathematical engineering, genetic engineering**)

### technika = 1. technology

a) study, application of scientific knowledge in technical practice

*The past few years have brought about great advances in science and technology.*

*Our belief in the power of modern technology is not always justified.*

Wrong: ... *in science and technics*

... *modern technics*

Influenced by English, Czech “**technologie**” is gradually replacing “**technika**”.

b) machines and equipment

*We have all the technology we need for this purpose.*

Wrong: ... *all the technics/techniques*

**2. technique** (method)

*Management by objectives is a well-known management technique.*

Wrong: ... a well-known management technic.

- 3. **engineering school, university/institute of technology** (current usage)  
*M.I.T. Massachusetts Institute of Technology*
- technical university** (historical usage)  
*Czech Technical University*

**technologie** = 1. **technology** (procedure, the way of processing or treatment of materials and products)  
*welding technology/technology of welding*  
*That plant has introduced new production technologies.*

2. **technology** - see technika 1.a) above

**technický** = 1. **technical** (relating to the knowledge, machines and methods used in science and industry)  
*That secondary school offers technical training.*  
*secondary technical school (průmyslovka)*  
*Our staff is available to give you technical support.*

2. **technical** (relating to the knowledge and methods of a particular subject/job)  
*"Milling machine" is a technical term. (odborný termín)*

3. **technological/technical** (relating to scientific knowledge of technical nature)  
*Modern scientific and technological/technical knowledge is essential for the development of the country.*

4. **technical/engineering**  
*The lack of interest in technical education is disturbing.*  
(lower levels of education, two years in length, offered by technical institutes, junior colleges)  
*That job requires engineering education.*  
(a higher, specialized level of education, offered by universities)

**technik** = 1. **technician** (person who checks and maintains equipment or machines)  
*laboratory technician*

2. **technologist** (person who has special knowledge of technology) - see technika 1.a) above  
*A group of distinguished scientists and technologists visited our Department.*

**Warning:** Avoid the word **technics**. Although you may find it in very big dictionaries, it is hardly ever used and sounds strange.

## EXERCISES

I. Fill the gaps with the words given below and translate them into Czech.

lecture halls	lectured	class	classified
tuition fees	instruction	marks/grades	laboratory work
classes/lessons	marked/graded	marking/grading	class

**lessons****passed****classified**

1. Private universities charge .....
2. At our Faculty there are two big ..... that hold more than 400 students.
3. Examinations in our PhD programmes are not .....; the word "....." is used instead.
4. As there are no ..... tomorrow, I can spend the whole day at home.
5. Dr X ..... on the latest developments in genetic engineering.
6. Most engineering students like ..... because it gives them an opportunity to do experiments, make measurements and verify what they learned in theory.
7. She's taking English ..... ; she needs to improve her English to be eligible for a study stay abroad.
8. We are in the same ..... for maths but in a different one for physics.
9. The books in this small library are ..... by subjects, not by authors.
10. He works hard and always gets top ..... in all his exams.
11. At Czech universities the language of ..... is Czech.
12. These documents contain ..... materials, i.e. they are not available to the public.
13. The ..... of 92 are still very fond of their alma mater: they have been meeting regularly and raising funds in support of young researchers.
14. They have adopted a new ..... system; they are using letters instead of numbers.

**II. Fill in prepositions.**

1. He is a professor ..... English history.
2. Dr Nová is a senior lecturer ..... computer science.
3. He has been engaged ..... research ..... sensors ..... a long time.
4. Dr Smith, reader ..... electromechanical systems ..... the Department ..... Electromechanical Engineering, lectures ..... electromechanical energy conversion.
5. I'm doing a course ..... graphic design.
6. I want to enrol ..... a course ..... management.
7. This course is intended ..... students who prefer a career ..... business or industry ..... an academic career.
8. She took an exam ..... English.
9. I saw him ..... the lecture.
10. He gave a lecture ..... higher engineering education in Great Britain.
11. He's studying ..... the maths exam.
12. I'm afraid I'll have to take the exam ..... Dr X, who is very strict.

**III. Correct the mistakes.**

1. How many subjects have you enrolled for this semester?  
.....
2. He has elaborated/worked out an excellent annual report.

.....  
3. His diploma work deals with environmental issues.

.....  
4. Students defend their theses in front of a board of examiners.

.....  
5. He got very bad marks in the maths and physics tests.

.....  
6. Dr Brown always gives us a lot of homeworks.  
.....

#### IV. Which words fit in the gaps below?

<b>engineering</b>	<b>technology/ies</b>	<b>technique/s</b>
<b>engineering</b>	<b>technological</b>	<b>technical</b>
<b>engineer/s</b>	<b>technologist</b>	<b>technician</b>

1. It can be said that the rate of ..... progress is a function of expenditure on research.
2. Electrical and mechanical ..... are in great demand at present.
3. The pace of ..... change increased suddenly in the latter half of the 20<sup>th</sup> century.
4. Even if there is a ..... in your lab, it is a good idea to learn how to plug in and check the obvious things when something goes wrong.
5. The University's printing centre uses the latest .....
6. If you want to pass the driving test, you have to improve your driving .....
7. Preference is given to applicants with ..... qualifications.
8. Old people have problems with new .....
9. MIT (Massachusetts Institute of Technology) and Caltech (California Institute of Technology) are the best ..... schools in the USA.
10. The artist, the scientist, the ..... is, in his way, a designer of things.
11. Professor X made a great contribution not only to the profession of electrical ..... but also to ..... in general.
12. This description is too ..... for me – I don't understand it.
13. The College offers training in marketing .....
14. Modifications in paper production ..... have reduced the use of chlorine.
15. We have been having some ..... problems with that new apparatus.

#### V. Can you complete the table? The list of expressions you may not be familiar with might help you. For more help go back to the Notes (Universities; Faculties and Departments).

<b>prerequisite</b>	<b>open-book examination</b>	<b>enrolment/intake</b>
<b>tenure</b>	<b>syllabus</b>	<b>closed-book examination</b>
<b>continuous assessment</b>	<b>defend</b>	<b>graduation (ceremony)</b>
<b>written</b>	<b>admit</b>	<b>enrol on/for; register for</b>
<b>coursework</b>	<b>drop out</b>	<b>final examination/ finals</b>
<b>tutorial</b>	<b>courseware</b>	<b>home assignment/homework</b>

oral

e-learning

graduate

Which word/s?

1. number of students who join a university at a time	
2. accept a student, allow a student to enter university	
3. teaching/research unit smaller than a faculty/college	
4. ranks of academic staff (from the highest to the lowest) at British universities	
5. ranks of academic staff (from the highest to the lowest) at US universities	
6. teacher who gives lessons to a small group of students	
7. class/discussion conducted by such a teacher	
8. staff involved in research only	
9. PhD students engaged in teaching and research	
10. right to stay permanently in an academic job	
11. undergraduate degrees in engineering sciences	
12. (post)graduate degrees in engineering sciences	
13. courses students have to take	
14. courses students can choose but do not have to take	
15. put one's name down for a course	
16. a course a student must take before he/she is admitted to a follow-up course	
17. a term covering attendance at lectures, seminars, lab work, various assignments (reports, projects)	
18. a plan of what is taught in a course	
19. studying without direct contact with the teacher, using electronic media	
20. software that is designed to teach a subject	
21. work to be done at home	
22. judging students' performance throughout the semester	
23. two basic kinds of examinations	
24. the kind of examination prevailing in the British and American systems	
25. examination during which students may use books	
26. examination during which students are not allowed to use books	
27. examination that students take at the end of	

their studies	
28. present one's thesis and use arguments in its support	
29. complete a university course of study	
30. the ceremony at which you receive your degree	
31. leave a university/a course without finishing it	

**VI. Complete the sentences using the right forms of the verbs below. In some sentences two or three words can be used in the same gap.**

<b>resit</b>	<b>give</b>	<b>fail</b>	<b>scrape through</b>	<b>sit for</b>
<b>go to</b>	<b>listen to</b>	<b>take</b>	<b>pass</b>	<b>do</b>
<b>retake</b>	<b>skip</b>	<b>sail through</b>	<b>attend</b>	

1. Only some students ...../..... classes regularly.
2. Yesterday, the visiting professor ..... a lecture on higher education in Great Britain.
3. Had you ..... him more carefully, you would know that the choice of degrees offered by the British universities is greater than that offered by our universities.
4. As he ...../..... the exam, he will have to ...../..... it in September.
5. The pass mark was 60%. With 61% he just ..... the test.
6. He was one of the best students in our class. No wonder that he ..... the finals.
7. He ..... Professor White's lectures several times this semester without any obvious reason.
8. When are you going ...../...../..... the English examination?

**VII. Topics for discussion**

1. Do you think that merging the Faculty of Electrical Engineering, the Faculty of Mechanical Engineering and the Faculty of Applied Sciences into one (following the Birmingham pattern) would be a good idea? Why/Why not?
2. Do you think that splitting an existing faculty into two, more specialized ones, is a good idea? Could you name the advantages and drawbacks of such a decision?
3. What are the advantages/disadvantages of written/oral examinations? Should oral examinations be abolished?
4. Both university teachers and employers are speaking about falling academic standards. Do you agree with them? If so, what are the reasons?
5. What "employability" skills should a graduate possess?

