

Course syllabus - Science Higher

(plan docente)

Course Title: Cursos de Inmersión en Lengua Inglesa - Sciences

Level: C1-C2

Duration: 40 hours (class time)

Student profile:

This course is for students who have a special interest or need to improve their English language knowledge with a special focus on science (The course is especially designed for those exploring the possibility to move into an academic or professional field where a science background would be a requirement).

Course Objectives:

- To improve oral fluency and comprehension.
- To improve on such essential communication skills as debating, discussing, presenting, and reasoning based on topics from sciences.
- To consolidate and learn vocabulary that can be applied to various aspects of science grounded subjects.
- To consolidate and reinforce existing vocabulary and structures through practical application of the language with a focus on participative communication.
- To allow the student to acquire confidence to speak in public in a variety of settings using specific English.
- To learn about and discuss a broad range of subjects from a variety of science based topics.
- To study and, in some cases, practice the writing skills needed for academic and professional application within this field.

Topics:

Statistics and data, presentations, psychology and criminology, experiments and the scientific method, computing and I.T, modern health threats, environmental problems, biotechnology and biomedical engineering, job applications and interview skills, population growth and diminishing resources, inventions.

Grammatical content:

Grammar structures will be practiced during the course through practical application. Specifically needed language structures will be incorporated into the topics.

Methodology:

The methodology used is the communicative approach with a very strong emphasis on total participation. Students will be encouraged to actively participate at all stages of the course to maximize their oral use of the language. New language and structures are taught through elicitation and the use of the language in context. Students are then helped to assimilate these new elements through natural practice (both teacher led and free practice activities).

UIMP - English Immersion Course

Science Higher Student Book



Science Higher - Day 1 - Monday

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08.30 - 09.00:

Breakfast

09:00 - 10:30

Level testing:

Teachers use prepared questions and test approx. 5 students each.

While oral tests are being conducted, students are completing a written test.

Students are graded numerically, with these provisional grades noted.

*After class on Monday, teachers will review level grades with students' performance

in class.

Any changes will

be entered in the Amended level evaluation" form.

10:30-11:30

Ice-breaker games (in groups): Getting to know one another: Students work in pairs to obtain information about each other (10 min) Presentations: Each student must present their partner to the rest of the group.

11:30-11:45

Break

11.45 - 14.15:

Presentations:

Topics:

Types of speeches

What makes a good presentation

How to choose a topic

Structure of a presentation

Writing an effective introduction and conclusion

Common connectors

Objectives:

Learn the names of different types of speeches

Discuss presentations you have listened to and talk about why they were successful

Learn new adjectives to describe presentations

Answer your questions about the Friday presentation

Discuss what makes a suitable topic

Talk about how to structure your presentation

Go over how to organize your introduction

Practice using common connectors

Discuss how to write a conclusion

Give a practice presentation

Talk about ways to calm your nerves

14.15 - 15.30:

Lunch with teachers

15.30 - 17:00:

Experiments

Topics:

Describing experiments

Laboratory supplies

The Scientific Method

How to design an experiment

Laboratory accidents

Famous experiments

Objectives:

Learn common collocations and phrasal verbs related to experiments

Discuss experiments from your studies or degree

Talk about amazing experiments currently being performed

Learn the names of basic laboratory equipment

Review the scientific method

Design an experiment to test a hypothesis

Talk about what can go wrong in a laboratory

Present a research proposal for an imaginary laboratory

Research a famous experiment

17.00- 18:00:

One-to-One sessions + On-going group project

Students receive their 15 minute one-to-one session.

While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is to create a play/report/documentary which they must perform in front of their peers in the final class on Friday.

18.00 - 18.30:

Break

18.45 - 20.30:

Group activity

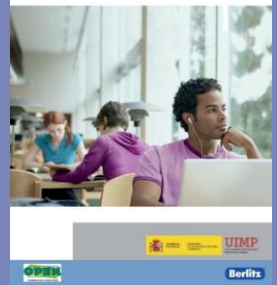
20.30 - 22.00

Dinner

Science Higher - Day 2 - Tuesday

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08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30
Topics: **Health & Hospitals**
Health science professions
Medical problems and treatments
Language for the doctor's office
Healthcare systems
Medical equipment

Objective: Discuss the challenges of a career in the health sciences
Talk about common health problems and how they are treated
Learn functional language for speaking to patients
Discuss the personality traits necessary for health science professionals
Debate the pros and cons of the Spanish healthcare system
Consider the utility of different medical equipment
Discuss what makes a good hospital
Learn important phrasal verbs related to health
Research a disease and prepare a practice presentation
Learn some common proverbs related to health

11:30-11:45 Break

11.45 - 14.15:
Topics: **Numbers and Statistics:**
Big Numbers
Small Numbers
Operations and Calculations
Probability
Statistics, Fractions & Percentages
Describing Graphs & Charts
Surveys

Objectives: Pronounce big numbers accurately
Pronounce small numbers accurately
Perform calculations in English
Discuss probability and risk
Use fractions and percentages
Describe and present data in graphs and charts
Carry out statistical surveys and present data

14.15 - 15.30: Lunch with teachers

15.30 - 17:00:
Topics: **Technology:**
Advantages and disadvantages of information technology
Common technology problems
Technology in the classroom
The impact of social media on society
Mobile phone and social media addiction
The future of information technology

Objectives: Analyze famous quotations and compare your opinion to your classmates' views
Discuss the benefits and drawbacks of everyday technological devices
Learn vocabulary to describe common technology problems
Discuss the merits of technology in the classroom in an interactive role play
Present your opinions about social media in a debate
Discuss strategies to reduce the time you spend using mobile devices
Predict the technological innovations of the future and draw up a timeline
Learn key phrasal verbs related to technology
Select items for a time capsule to be opened 100 years from now

17.00 - 18:00: One-to-One sessions + On-going group project
Students receive their 15 minute one-to-one session.
While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is

18.00 - 18.30: Break

18.45 - 20.30: Group activity
20.30 - 22.00: Dinner

Science Higher - Day 3 - Wednesday

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08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30
Topics: **Genetics**
Genetic Statistics
Nature vs.
Nurture
Heritability
Family Trees
Family History Taking
Pedigrees

Objective: Amazing Genes
Revise numbers and statistics related to Genetics
Discuss the impact of genetics and the environment on humans
Speculate as to which traits can be inherited and which cannot
Learn which traits can/cannot be passed down through generations
Learn adjective and verb patterns specific to genetics
Practice phrasal verbs specific to genetic inheritance
Describe your family tree and family relationships
Learn about pedigrees and medical family histories
Learn about amazing human genes
Learn hedging language to distance yourself from theories/studies

11:30-11:45 Break

11.45 - 14.15:
Topics: **Engineering:**
Units of Measurement
Conversion Tables
Material Properties and Uses
Commodity Trading
Ethics of Mars Colonization
Engineering a Mars Base
Choosing an Engineer Team

Objectives: Learn differences in unit measurements
Revise and practice big numbers
Practice doing calculations in English
Describe properties and uses of engineering materials
Compare engineering materials
Practice the difference between for and to
Practice negotiating, trading, buying and selling
Discuss issues in large-scale engineering projects. Develop a plan for an engineering project
Negotiate the strengths and weaknesses of candidates when putting together a team of engineers

14.15 - 15.30: Lunch with teachers

15.30 - 17:00:
Topics: **Psychology & Criminology**
Branches of psychology
Famous psychologists
Behavioral disorders and treatments
Famous psychology assessments
Psychology and the justice system

Objectives: Practice the pronunciation of key terms
Learn about famous psychologists such as Sigmund Freud and Carl Jung. Discuss different branches of psychology
Talk about how to treat a group of imaginary patients
Learn the names of different behavioral problems and talk about how they should be treated
Discuss Myers-Briggs personality types and how personality influences your life
Talk about Rorschach tests and evaluate a series of sample images
Discuss the relationship between dreams and the mind. Debate a series of ethical questions
Discuss what causes crime and talk about the responsibilities of a forensic psychologist
Debate whether psychological counseling should be offered to prison inmates

17.00 - 18:00: One-to-One sessions + On-going group project
Students receive their 15 minute one-to-one session.
While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is

18.00 - 18.30: Break

18.30 - 20.30: Group activity
20.30 - 22.00: Dinner

Science Higher - Day 4 - Thursday



08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30 **Job Applications and Interview Skills**

Topics: Work and professional life
 Applying for jobs and internships
 Best practices for interviews
 CV writing

Objective: Review basic vocabulary for jobs and interviews
 Discuss what career paths exist for someone with your qualifications
 Talk about what factors to take into account when considering a job opportunity
 Discuss the importance of internships and work placements
 Learn what documents you need to send with a job application
 Consider the merits of two sample cover letters
 Evaluate several imaginary candidates for a job
 Learn how to describe your strengths, weaknesses and skills
 Think about how to sell yourself effectively in an interview
 Participate in a practice interview
 Learn basic telephone language
 Write a CV in English

11:30-11:45 Break

11.45 - 14.15: **Inventions:**
Topics: Important Inventions in History
 Future Inventions
 Robotics and Automation
 Robot Programming
 Issues in Robotics
 Invention Business Idea

Objectives: Discuss the importance of different inventions
 Speculate as to when different inventions were first developed
 Learn adjectives related to inventions
 Discuss the trade-offs of future inventions
 Learn compound adjectives related to inventions
 Discuss the roles of robots and the effects they will have on our lifestyle
 Discuss the risk of automation to different professions
 Describe tasks commonly carried out by robots
 Practice giving instructions and commands
 Discuss ethical issues in robotics
 Create and present a sales pitch for a new invention

14.15 - 15.30: Lunch with teachers

15.30 - 17:00: **Lesson chosen depending on group:**
Possible - Anatomy - Pharmacy
Topics: - Dentistry - Biomedical Engineering
 - Veterinary Science - Nutrition

17.00- 18:00: One-to-One sessions + On-going group project
 Students receive their 15 minute one-to-one session.
 While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is to create a play/report/documentary which they must perform in front of their peers in the final class on Friday.

18.00 - 18.30: Break

18.30 - 20.30: Group activity
20.30 - 22.00: Dinner

Science High - Day 5 - Friday

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08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30 **Environment**
Topics: Environmental problems
Solutions to environmental issues
Energy sources
Endangered species
Natural disasters

Objective: Compare your views on the environment to your classmates' opinions
Brainstorm environmental problems and propose solutions
Practice language for cause and effect
Prepare a presentation to raise awareness about an environmental issue
Compare renewable and nonrenewable energy sources
Discuss the benefits and drawbacks of nuclear energy
Practice first, second and third conditionals
Choose an endangered species to protect
Learn vocabulary to discuss natural disasters

11:30-11:45 Break

11.45 - 14.15: **Student presentations:**
Students, in their groups perform the presentations they have been working on as an on-going homework activity. They will receive structured feedback from both teacher and classmates.

14.15 - 15.30: Lunch with teachers

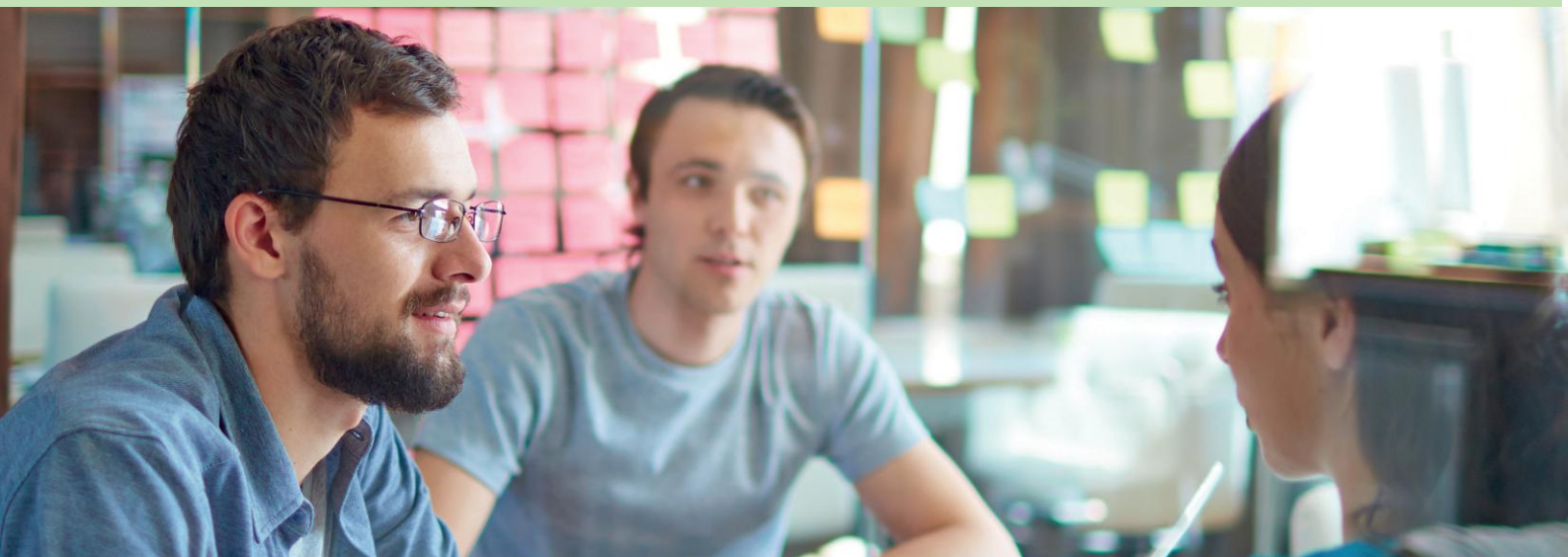
15.30 - 17:00: **FINAL EXAM AND EVALUTATIONS**

Student will take final exam and fill out all necessary paperwork for the course. There will also be a chance to consolidate their learning from the week.

17:45 – 18:00 **FINAL PERFORMANCE ACTIVITY**

Student will perform the group representation that they have been working on during the afternoon sessions from Monday to Thursday in front of their peers. Performances will be given feedback and rated.

18.00 Finish



Course syllabus - Science Lower

(plan docente)

Course Title: Cursos de Inmersión en Lengua Inglesa - Sciences

Level: B1-B2

Duration: 40 hours (class time)

Student profile:

This course is for students who have a special interest or need to improve their English language knowledge with a special focus on science (The course is especially designed for those exploring the possibility to move into an academic or professional field where a science background would be a requirement).

Course Objectives:

- To improve oral fluency and comprehension.
- To improve on such essential communication skills as debating, discussing, presenting, and reasoning based on topics from sciences.
- To consolidate and learn vocabulary that can be applied to various aspects of science grounded subjects.
- To consolidate and reinforce existing vocabulary and structures through practical application of the language with a focus on participative communication.
- To allow the student to acquire confidence to speak in public in a variety of settings using specific English.
- To learn about and discuss a broad range of subjects from a variety of science based topics.
- To study and, in some cases, practice the writing skills needed for academic and professional application within this field.

Topics:

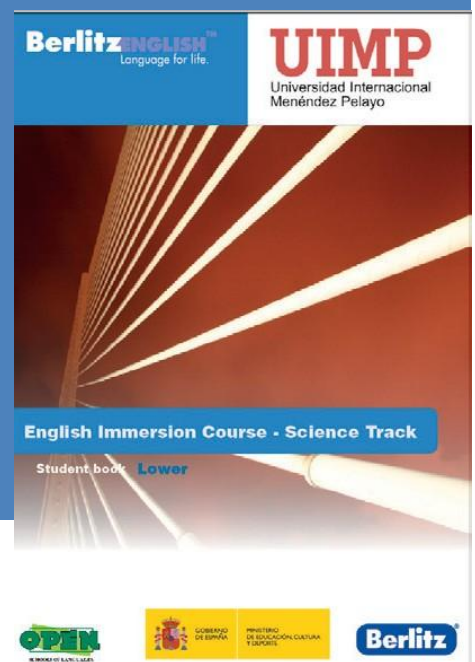
Statistics and data, presentations, psychology and criminology, experiments and the scientific method, computing and I.T, modern health threats, environmental problems, biotechnology and biomedical engineering, job applications and interview skills, population growth and diminishing resources, inventions.

Grammatical content:

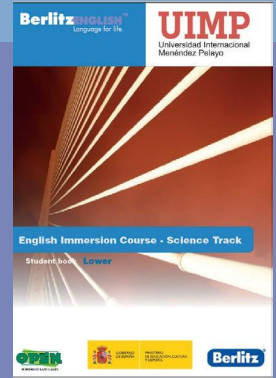
Grammar structures will be practiced during the course through practical application. Specifically needed language structures will be incorporated into the topics.

Methodology:

The methodology used is the communicative approach with a very strong emphasis on total participation. Students will be encouraged to actively participate at all stages of the course to maximize their oral use of the language. New language and structures are taught through elicitation and the use of the language in context. Students are then helped to assimilate these new elements through natural practice (both teacher led and free practice activities).



Science Lower- Day 1 - Monday



08.30 - 09.00: Breakfast
09:00 - 10:30 Level testing:
 Teachers use prepared questions and test approx. 5 students each.
 While oral tests are being conducted, students are completing a written test.
 Students are graded numerically, with these provisional grades noted.
 *After class on Monday, teachers will review level grades with students' performance in class. Any changes will be entered in the Amended level evaluation" form.

10:30-11:30 Ice-breaker games (in groups): Getting to know one another: Students work in pairs to obtain information about each other (10 min) Presentations: Each student must present their partner to the rest of the group.

11:30-11:45 Break

11.45 - 14.15: **Presentations:**
Topics: Good presentations and good speakers
 Different types of presentations
 Topics
 Dos and Don'ts of presentations PowerPoint
 pros and cons Structure of a presentation

Objectives: Making sure your presentation is tailored to the audience Talking about the most important aspects of a presentation Discussing the Dos and Don'ts of public speaking Discussing and learning nonverbal communication Talking about the content and structure of your presentation

Grammar: Phrasal verbs

14.15 - 15.30: Lunch with teachers

15.30 - 17:00: **Talking numbers**
Topics: Importance of statistics
 Graph types
 Data and mathematical functions
 Surveys and data collection

Objectives: Think about contexts where statistics are important
 Discuss what statistics you trust and mistrust
 Learn the names of different types of graphs
 Practice describing data and mathematical functions
 Use statistics to support a debate
 Discuss the role of surveys in data collection
 Think about the best practices for designing a survey
 Design your own survey and collect data from your classmates

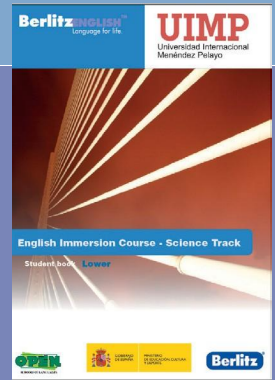
Grammar: Conjunctions

17.00- 18:00: One-to-One sessions + On-going group project
 Students receive their 15 minute one-to-one session.
 While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is to create a play/report/documentary which they must perform in front of their peers in the final class on Friday.

18.00 - 18.30: Break

18.45 - 20.30: Group activity
20.30 - 22.00: Dinner

Science Lower- Day 2 - Tuesday



08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30
Psychology and Criminology
Topics: The Branches of psychology and common treatments and problems
Current trends of medication
Group Psychology
Mental disorders in Cinema
Psychology and Criminology

Objective: Discuss the principal branches of psychology and how they are practiced
Consider the treatments for common psychological problems Discuss common behavioral problems, treatments & potential social stigma
Debate the current trend of medicating ADHD and depression Discuss group think, peer pressure and bullying
Consider the representation of mental disorders in cinema Discuss the relationship between psychology and criminology Consider whether brain scans can predict criminal behavior
Take a personality test inspired by Carl Jung & Isabel Briggs Myers' Typology
Read about famous psychology experiments

11:30-11:45 Break

11.45 - 14.15:
Eureka! - Famous Experiments in the Past and Today
Topics: The scientific method
Experiments and equipment
Facts and hypotheses
Scientific writing
Famous experiments

Objectives: Discuss the scientific method
Discuss experiments from your studies or degree Learn the names of basic laboratory equipment
Think about the difference between a fact and a hypothesis Design an experiment to test your own hypothesis
Discuss the Dos and Don'ts of scientific writing Compare two examples of scientific abstracts
Discuss famous scientific experiments, including Newton's discovery of the Laws of Motion, Archimedes' Principle, the Laws of Mendelian Inheritance, & more

Grammar: Precise language

14.15 - 15.30: Lunch with teachers

15.30 - 17:00:
Computing and Information Technology
Topics: IT and modern life
The internet and technology used in education Social media and addiction
Technology in medicine

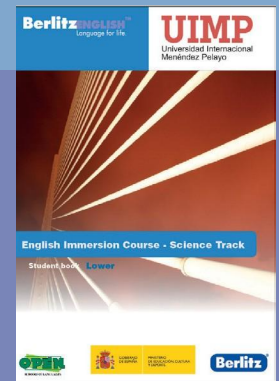
Objectives: Discuss the influence of the computing and information technology on modern life
Discuss the ways that you use the internet, and any specialized technology used in your degree
Study vocabulary for the components of a computer
Interpret quotations by famous figures about technology
Discuss the symptoms of social media addiction and how it can be cured
Participate in a role play about the value of digital whiteboards, tablets, and other kinds of educational technology
Consider the influence of technology on medicine
Research important figures from major technology companies

17.00 - 18:00: One-to-One sessions + On-going group project
Students receive their 15 minute one-to-one session.
While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is

18.00 - 18.30: Break

18.45 - 20.30: Group activity
20.30 - 22.00: Dinner

Science Lower- Day 3 - Wednesday



08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30
Topics: **Modern Health Threats**
Health threats in various parts of the world
Common diseases and symptoms
Lifestyle related diseases - Healthy life style
Welfare states and health systems

Objective: Learn some common health and nutrition proverbs
Discuss health threats in developed, developing and underdeveloped countries
Learn the names of some common diseases and discuss their symptoms
Discuss obesity and other lifestyle diseases
Think about ways to improve Britain's Five-a-Day Campaign and develop a healthy lifestyle plan of your own
Consider the concept of a "welfare state" and weigh the pros and cons of the Spanish health system
Debate the issue of healthcare for tourists
Act as a politician, & develop a policy proposal to treat modern health problems

11:30-11:45 Break

11.45 - 14.15: **The Changing World I - Environment, Global Warming and Natural Disasters**
Topics: Social issues and the environment
The history of our planet
Environmental problems & Global warming
Helping save the planet

Objectives: Discuss contemporary social issues and whether the environment is considered a priority
Discuss important geologic milestones in the earth's history
Brainstorm environmental problems, their causes and solutions
Learn vocabulary for natural disasters and key historical examples
Discuss what to pack in an emergency kit
Read about the causes and evidence of global warming, and prepare a mock presentation to world leaders
Consider the representation of environmental issues in cinema Think about what ordinary people can do to help the environment

14.15 - 15.30: Lunch with teachers

15.30 - 17:00: **Biotechnology and Biomedical Engineering**
Topics: Biotechnology and biomedical engineering
Vaccines and the history of vaccines
Genetic modification in animals, humans, and food
Hospitals and medical treatments
The Human Genome project

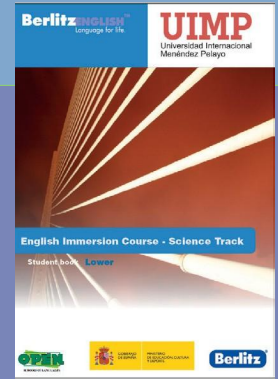
Objectives: Define biotechnology, biomedical engineering, and think about their applications in the past and present
Read about the history of vaccines
Learn basic vocabulary for biology, including the names of the parts of a cell
Discuss amazing examples of genetically modified animals
Consider the ethics of human genetic modification
Weigh the pros and cons of genetically modified foods
Read about impressive developments in biomedical engineering Participate in a role play comparing different types of hospitals & medical treatments
Learn basic vocabulary to describe a hospital Research the Human Genome Project

17.00 - 18:00: One-to-One sessions + On-going group project
Students receive their 15 minute one-to-one session.
While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is

18.00 - 18.30: Break

18.30 - 20.30: Group activity
20.30 - 22.00: Dinner

Science Lower- Day 4 - Thursday



08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30 **Job Applications and Interview Skills**
Topics: Jobs
 Career paths for science based education Job applications, CVs, Interviews Evaluating cover letters and candidates

Objective: Review basic vocabulary for jobs and interviews
 Think about what career paths exist for someone with your qualifications
 Discuss what factors you take into account when considering a job opportunity
 Learn what documents you need to send with a job application
 Evaluate a cover letter, and evaluate several imaginary candidates for a sample job description
 Learn how to describe your strengths, weaknesses and skills Think about how to sell yourself effectively in an interview
 Interview a peer, and participate in a practice interview Learn basic language for telephone interviews
 Practice writing a CV in English

Grammar: Adjectives and prepositions

11:30-11:45 Break

11.45 - 14.15: **The Changing World II: Population Growth and Energy Needs**
Topics: Global population
 Diminishing resources
 Renewable/nonrenewable energy and nuclear energy

Objectives: Discuss global population growth in recent years and consider experts' predictions for the future
 Think about the relationship between population growth, energy, and diminishing natural resources
 Learn about sources of renewable and nonrenewable energy, and compare different countries' approach to the energy problem
 Weigh the pros and cons of nuclear energy Learn how to describe the atom
 Participate in a role play
 Research current events related to this topic

Grammar: Phrasal verbs related to resources

14.15 - 15.30: Lunch with teachers

15.30 - 17:00: **Necessity is the Mother of Invention**
Topics: Great inventions
 Spanish inventions
 Metric vs. Imperial
 Ergonomics
 Advertising and marketing

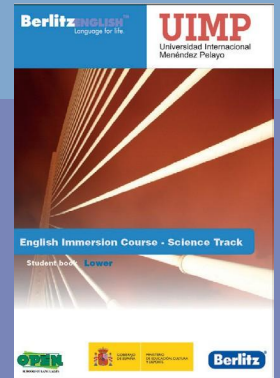
Objectives: Debate the world's greatest inventions and test your knowledge with an Inventions Quiz
 Discuss famous Spanish inventions and accidental products, and attempt to sell them to your classmates
 Learn common conversions between the Imperial and Metric systems
 Discuss the principles of ergonomics and interesting historical examples Discuss characteristics of advertisements
 Learn some idioms that are common in advertising
 Invent a product that solves an everyday problem and market it to you classmates
 Research some of the most important inventions of today – apps!

17.00 - 18:00: One-to-One sessions + On-going group project
 Students receive their 15 minute one-to-one session.
 While students are receiving their sessions, the remainder of the class will be working on an on-going project. The objective is

18.00 - 18.30: Break

18.30 - 20.30: Group activity
20.30 - 22.00: Dinner

Science Lower- Day 5 - Friday



08.30 - 09.00: Breakfast
09:00 - 09:10 Homework check

09:00 - 11:30 Professional and Practice

Topics: Session dedicated to the following:
Revision and consolidation of topics seen during the week Debate and Discussion on topics chosen by the students

Professional language: Students will look at elements of Professional English such as:

- Cross cultural awareness in the professional environment
 - Meetings
 - Telephone skills.
- (from the provided materials)

11:30-11:45 Break

11.45 - 14.15: Student presentations:

Students, in their groups perform the presentations they have been working on as an on-going homework activity. They will receive structured feedback from both teacher and classmates.

14.15 - 15.30: Lunch with teachers

15.30 - 17:00: FINAL EXAM AND EVALUTATIONS

Student will take final exam and fill out all necessary paperwork for the course. There will also be a chance to consolidate their learning from the week.

17:45 – 18:00 FINAL PERFORMANCE ACTIVITY

Student will perform the group representation that they have been working on during the afternoon sessions from Monday to Thursday in front of their peers. Performances will be given feedback and rated.

18.00 Finish

