



## Selected Course Descriptions

### Fundamentals of Biology and Physiology

Aims: To provide a broad overview of the fundamentals of biology, from the cellular level to the ecosystem. To provide an understanding of the fundamental principles of physiology at an anatomical and functional level.

### Introduction to Biomedical Science

Aims: To provide a background in the specialised terminology used in medical disciplines. To introduce the principles of disease and diagnosis of disease. To introduce key concepts in pathobiology; inflammation, cell injury and cell death. To provide an introduction to the biological basis of key diseases, using named examples.

### Genetics

Aims: To provide a deeper understanding of the fundamental principles of transmission genetics and molecular genetics, with particular emphasis on eukaryotic systems. To provide students with the ability to analyse and interpret a wide variety of genetic data, such as the outcome of crosses and data from molecular genetic techniques.

### Bioanalytical Techniques

Aims: To provide students with the relevant tools to plan and carry out investigations in an appropriate manner and to familiarise students with the routine diagnostic investigations within medical laboratories. To gain an understanding of principles behind a range of analytical techniques, and to be able to apply them in the relevant specialised field of investigation and the consequent data interpretation.

### Cancer Biology and Therapeutics

Aims: To facilitate an understanding of the relationship between cell biology and the basis of cancer; To provide an advanced understanding of the control of mechanisms of cell division, cell differentiation and cell signalling; To relate an understanding of concepts in carcinogenesis and of current molecular therapeutic strategies.

### Medical Biochemistry

Aims: To provide a detailed review and understanding of the biochemical basis of human disease. To extend depth of understanding of the principles of physiology and pathology of blood and selected organ system and those areas of current active research activity. To evaluate the significance of biochemical laboratory data to the diagnosis, pathogenesis and treatment of human disease. To develop a critical and analytical approach to the investigation of the biochemical basis of human disease.

### Medical Microbiology

Aims: To build upon students prior knowledge of microbiology by examining advanced topics in the field of medical microbiology. To provide a critical understanding of infectious diseases, the link between pathogens and host, microbial identification, control and therapy.

### Advanced and Clinical Immunology

Aims: To provide a detailed review and understanding of the science of immunology and the conceptual and experimental framework underpinning modern immunology. To provide an in-depth understanding of the physiology of the immune system and how it can go wrong in disease and the laboratory investigation of immune disorders. To explain the role of the immune system during infection and both currently existing and experimental immunotherapeutic strategies for various disease states. To integrate molecular, cellular, physiologic and pathologic aspects of the immune system.

### Haematology and Blood Transfusion Science (II)

Aims: To provide a detailed review and understanding of white blood cells and coagulation factors. To extend depth of understanding of the haematopoietic processes and pathophysiological basis of blood disorders. To develop a critical and analytical approach to the diagnosis and prognosis of haematological disorders including associated technologies. To develop a detailed appreciation of current views on a number of haematological diseases e.g. haematological malignancies, haemostatic disorders. To develop a critical appreciation of the importance of blood transfusion science in managing selected haematological disorders.

### Project (Life Sciences)

Aims: To provide an opportunity for personal development in applying prior theoretical and practical learning to a specific project and to demonstrate the ability to carry out a sustained piece of work.

## why choose this programme

### Multidisciplinary Academic Education

The curriculum balances theoretical and practical skills across a broad spectrum of scientific fields related to human health, including genetics, immunology, cancer biology, microbiology, haematology, pathology, and modern bioanalysis

### Highly Qualified Academic Staff

Our faculty, experts in their fields, bring strong academic education, scientific research, and professional experience to our curriculum. They are dedicated to supporting your academic growth and ensuring your success

### Further Academic Education Opportunities

Our graduates can enhance their professional opportunities with postgraduate studies in rapidly developing fields like pharmaceutical formulation, regenerative medicine, advanced biotechnology, and bioinformatics, all in high demand worldwide

### Professional Practical Experience

The program equips students with practical skills using specialized instruments and executing experimental protocols in modern laboratories. This is enhanced by placements in real healthcare settings, developing their professional abilities to address real case problems

### Strong Employment Prospects

Biomedical Science is a versatile degree that meets market demands, creating diverse job opportunities in scientific institutes, research centers, clinical diagnostics, forensic labs, and biotech companies



“

The undergraduate degree programme in Biomedical Science equips graduates with the scientific knowledge and practical skills necessary to pursue careers in a wide range of professional environments. These include hospitals, clinics, and medical diagnostic centres, as well as genetic, histopathology, and microbiology laboratories. Graduates are also well-prepared for roles in pharmaceutical and biotechnology companies, research centres and scientific institutes, forensic science services, and companies engaged in the development of cosmetics and medical devices with therapeutic applications. In addition to immediate career opportunities, the programme provides a solid foundation for postgraduate studies abroad, allowing students to specialise in areas aligned with their interests and professional aspirations. Many students have benefited from the dedicated support of the New York College Career Office, completing internships at organisations based in Athens and Thessaloniki, which often lead to long-term employment following graduation.



### Apply Now!

**Athens:** 38 Amalias Ave., Syntagma  
tel.: +30 210 32 25 961  
**Thessaloniki:** 138 Egnatias & P.P. Germanou  
tel.: +30 2310 88 98 79  
**info@nyc.gr, www.nyc.gr**



NYC ATHENS CAMPUS  
ATHENS, SYNTAGMA



NYC THESSALONIKI CAMPUS  
THESSALONIKI



UNIVERSITY OF NEW YORK  
IN PRAGUE (UNYP)  
PRAGUE



**NEW YORK COLLEGE**  
THE INTERNATIONAL COLLEGE OF GREECE  
**The LEADING College**  
**of University Studies in Greece:**  
The **ONLY** Greek College with expertise in founding and  
operating Private Universities in Europe!



**UNIVERSITY OF  
GREENWICH**



**NEW YORK COLLEGE**  
THE INTERNATIONAL COLLEGE OF GREECE





The **BSc (Hons) in Biomedical Sciences** is designed to provide students with a detailed study of human health and disease, focusing on the pathogenesis (mechanism) of disease, diagnostic pathway and therapeutic intervention. It provides preparation for careers in medical diagnostic and research environments.

## SCIENCE FOR A HEALTHIER WORLD

The first year of this programme is intended to be a foundation for the more advanced studies in subsequent years. Approximately one quarter of the programme is taken up with practical-based courses that build students' skills in this area. The second and final years take skills and theoretical development to more advanced levels. In the final year, students also carry out an independent research project that comprises one quarter of final-year study.

RESEARCH



ANALYSIS



PROBLEM-SOLVING



COLLABORATION



INNOVATION



“

Welcome to the BSc (Hons) in Biomedical Science program, the “heart” of the modern Health sector. Our curriculum covers the combined theoretical and experimental knowledge of many scientific fields dedicated to research developments for the early identification and treatment of various diseases.

This program fosters the growth of skilled young bioscientists with the passion to carry out innovative studies and offer new knowledge to the scientific community. Your practical experience will be enhanced through research in the modern laboratories of the college as well as placements at esteemed hospitals, clinics or medical diagnostic centres, where you will gain valuable insights into the real-world challenges of the field.

**Dr. Eugenia Papadaki**

Head of Biomedical Science Department,  
New York College



### Programme Duration

Program Flexibility  
with full-time or part-time  
studies

Full time 3 years

Part time 4 years

### CURRICULUM

#### Year 1

- Fundamentals of Biology and Physiology
- Practical and Academic Skills (Chemistry/Biology Laboratories)
- Basic Chemistry for Life Science
- Biochemistry 1
- Biochemistry 2
- Introduction to Biomedical Science

#### Year 2

- Haematology I
- Genetics
- Physiological Systems and Regulation
- Bioanalytical Techniques
- Infection and Immunity
- Metabolism and Disease
- Cellular and Molecular Pathology
- Research and Professional Skills in Life Science

#### Year 3

- Biomedical Science Placement
- Medical Microbiology
- Medical Biochemistry
- Cancer Biology and Therapeutics
- Advanced and Clinical Immunology
- Haematology and Blood Transfusion Science (II)
- Project (Life Sciences)

# University of Greenwich Great Britain

The state UNIVERSITY OF GREENWICH is located in London and is well known worldwide due to the high employability rate of its graduates, which demonstrates its good reputation in the labour market. UNIVERSITY OF GREENWICH was ranked as the best University of London in teaching quality by the Sunday Times. The UNIVERSITY OF GREENWICH offers, in cooperation with New York College, undergraduate and postgraduate programmes with studies entirely in Greece, where students receive the original degree of this world-renowned British State University.

**New York College has a franchise agreement under the Greek Ministry of Education legislation and the degree you will receive at the end of your studies is awarded by the University itself.**

### ENTRY REQUIREMENTS

The standard entry requirement for the BSc(Hons) Biomedical Science will include:

- High School Certificate –min 15.0
- IELTS Score - min. 6.5, or TOEFL 213 (or 550 paper-based)

Students who do not meet these entry criteria will be required to attend the 0-Year Foundation programme and pass it with an overall average of 60%.

### ASSESSMENT

Written assignments, examinations, practical assignments in the laboratory and presentations.

### INTERNSHIP

The Practical Training, with a total duration of 960 hours, takes place in hospitals, clinics, or diagnostic centers. It begins at the end of the second year and continues throughout the third year of study.

