



Selected Course Descriptions

Exploring Biomedical Science This module introduces the core principles of biomedical science with a focus on disease mechanisms, diagnostic processes, and the investigation of clinical samples. Students explore how disease develops and is identified across a range of conditions, alongside the use and interpretation of laboratory data in clinical diagnosis and monitoring. The module also develops understanding of biomedical terminology and the pre- and post-analytical factors that affect the accuracy and reliability of laboratory results.

Concepts in Science This module covers the fundamental scientific concepts that underpin scientific challenges faced by the world today, ranging from climate change to human health. Students will learn about biochemistry and its underlying chemistry concepts, molecular and cellular biology, genetics, human gross anatomy, microbiology, evolution, and conservation.

Genetics This module provides an in-depth introduction to transmission and molecular genetics, with a focus on eukaryotic systems. Students explore key principles such as Mendelian and non-Mendelian inheritance, gene expression, linkage and mapping, population genetics, and cytogenetics. The module also covers molecular techniques, model organisms, and the use of genomic and bioinformatic tools to investigate the human genome. Emphasis is placed on developing skills in interpreting and analysing genetic data from experimental and computational approaches.

Bioanalytical Techniques This module introduces key analytical methods used in biological and clinical laboratories. Students gain an understanding of the principles behind major techniques including spectroscopy, chromatography, electrophoresis, immunoassays, PCR, and flow cytometry, as well as emerging tools such as automation and point-of-care testing. The module emphasises practical application, including sample preparation, calibration, and data interpretation, alongside the development of laboratory and teamwork skills relevant to diagnostic and research settings.

Cancer Biology and Therapeutics This module explores the cellular and molecular basis of cancer, focusing on how normal cell processes such as cell division, differentiation, and signalling become disrupted in disease. Students examine mechanisms of carcinogenesis, including genetic mutations, tumour development, and metastasis, alongside current approaches to cancer diagnosis and molecular therapies. The module also develops skills in interpreting scientific literature and applying critical analysis to contemporary research in cancer biology.

Advanced and Clinical Immunology This module aims to provide an in-depth understanding of the immune system in health and disease. It explores the molecular and cellular mechanisms underlying immune function, including antibody diversity, lymphocyte development, cytokine regulation, and host responses to infection. The module also examines immune-related disorders such as hypersensitivity, autoimmunity, and immunodeficiency, alongside current and emerging immunotherapeutic approaches and vaccine development. Emphasis is placed on interpreting experimental and clinical data, evaluating current research, and linking immunological theory to disease and laboratory investigation.

Haematology and Blood Transfusion Science (II) This module develops advanced understanding of white blood cells, coagulation, and haematopoiesis, alongside the pathophysiology of blood and haemostatic disorders. It examines the diagnosis and prognosis of conditions such as leukaemia and myeloma, as well as disorders of coagulation and thrombosis, with a focus on laboratory and analytical approaches. The module also covers blood group systems, transfusion science, and compatibility testing, emphasising safe blood provision, regulatory frameworks, and clinical application in the management of haematological disease.

Biomedical Science Placement This module provides a biomedical science placement (960 hours) in a clinical laboratory environment, allowing students to apply theoretical knowledge to real-world practice. Students develop practical laboratory skills, professional competencies, and an understanding of the role of a biomedical scientist. The placement is supported by academic and workplace mentors and enhances learning and professional development.

Project (Life Sciences) This module provides an opportunity to undertake an independent life sciences research project, applying theoretical knowledge and practical learning to investigate a defined scientific problem. Students plan, design, and carry out a sustained piece of scientific work, developing skills in experimental design, data collection, analysis, and interpretation. The module also supports the development of critical thinking through the evaluation of scientific literature and research findings.

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

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

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

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

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



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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!

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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



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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 (Level 4)

- Exploring Biomedical Science (30 credits)
- Concepts in Science (30 credits)
- Practical Skills for Science (30 credits)
- Skills for Tomorrow's Scientist (30 credits)
- Academic English for Undergraduates (0 credits)

Year 2 (Level 5)

- Haematology I (15 credits)
- Genetics (15 credits)
- Physiological Systems and Regulation (15 credits)
- Bioanalytical Techniques (15 credits)
- Infection and Immunity (15 credits)
- Metabolism and Disease (15 credits)
- Cellular and Molecular Pathology (15 credits)
- Research and Professional Skills in Life Science (15 credits)

Year 3 (Level 6)

- Biomedical Science Placement (15 credits)
- Medical Microbiology (15 credits)
- Medical Biochemistry (15 credits)
- Cancer Biology and Therapeutics (15 credits)
- Advanced and Clinical Immunology (15 credits)
- Haematology and Blood Transfusion Science II (15 credits)
- Project (Life Sciences) (30 credits)

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.

