UNDERSTANDING THE PAST I
UNDERSTANDING THE PAST II

ARCHAEOLOGY: THEORY AND PRACTICE
**OPTIONS 40 CREDITS FROM:**
HUMANS-ANIMALS-LANDSCAPES-RELATIONSHIPS (20)
MEDIEVAL EUROPE AND THE MEDITERRANEAN (20)
THE SILK ROAD (20)
COMMODITIES, CONSUMPTION AND CONNECTIONS (20)
HUMAN OSTEOLOGY (20)
ROME AND THE MEDITERRANEAN (20)
THORUGH A GLASS DARKLY (20)

NATURAL SCIENCES SYNOPTIC MODULE
**OPTIONS 40-60 CREDITS FROM:**
HUMANS-ANIMALS-LANDSCAPES-RELATIONSHIPS (20)
MEDIEVAL EUROPE AND THE MEDITERRANEAN (20)
THE SILK ROAD (20)
COMMODITIES, CONSUMPTION AND CONNECTIONS (20)
HUMAN OSTEOLOGY (20)
ROME AND THE MEDITERRANEAN (20)
THORUGH A GLASS DARKLY (20)

NATURAL SCIENCES DISSERTATION
**OPTIONS MIN 20/MAX 40 CREDITS FROM:**
SPECIAL TOPICS 1 (20)
SPECIAL TOPICS 2 (20)

MOLECULAR BIOLOGY AND GENETICS SUBPATHWAY
GENES, MOLECULES AND CELLS

**MOLECULAR BIOLOGY AND GENETICS SPECIALISM**
THE GENOME & HUMAN DISEASE
BACTERIAL GENES & DEVELOPMENT
MICROBIAL BIOTECHNOLOGY

**OPTIONS 20 CREDITS FROM:**
INFECTION & IMMUNITY (20)
EVOLUTIONARY BIOLOGY OF ANIMALS (10)
DEVELOPMENTAL BIOLOGY (10)
NEUROBIOLOGY OF DISEASE (20)

**MOLECULAR BIOLOGY AND GENETICS SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
GENE REGULATION
HUMAN VARIATION
MOLECULAR BIOLOGICAL LAB SKILLS

**OPTIONS 20 CREDITS FROM:**
ADVANCED DEVELOPMENTAL BIOLOGY (10)
MOLECULAR AND CELLULAR NEUROSCIENCE (10)
PATHOGENS (10)
AGING, SEX & DNA REPAIR (10)
CANCER BIOLOGY (10)

EVOLUTIONARY BIOLOGY & ECOLOGY SUBPATHWAY
EVOLUTION, ECOLOGY & BEHAVIOUR
LIFE ON EARTH

**EVOLUTIONARY BIOLOGY & ECOLOGY SPECIALISM**
ECOLOGY
THE GREEN PLANET

**OPTIONS 20 CREDITS FROM:**
INFECTION & IMMUNITY (20)
BUILDING BRAINS (20)
EVOLUTIONARY BIOLOGY OF ANIMALS (10)
REPRODUCTIVE PHYSIOLOGY (10)
ANIMAL BEHAVIOUR & PHYSIOLOGY (20)

**EVOLUTIONARY BIOLOGY & ECOLOGY SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
EVOLUTIONARY ECOLOGY
CONSERVATION

**OPTIONS 20 CREDITS FROM:**
MOLECULAR AND CELLULAR NEUROSCIENCE (10)
MOLECULAR BIOLOGICAL LAB SKILLS (10)
MOLECULAR EVOLUTION (10)
SCIENCE AND SOCIETY (10)

BIOLOGICAL RESEARCH PROJECT
RESEARCH PLANNING & PREPARATION
RESEARCH PRESENTATION SKILLS
**OPTIONS MIN 0/MAX 20 CREDITS FROM:**
PROCESS & PRACTICE IN SCIENCE (10)
CUTTING EDGE TECHNOLOGIES IN MOLECULAR BIOLOGY (10)
ADVANCED EXPERIMENTAL DESIGN & ANALYSIS (10)

HALLMARKS OF CANCER
CAUSES AND CONSEQUENCES OF CANCER

**60 CREDITS FROM:**
ANGIOGENESIS AND TUMOUR-HOST INTERACTIONS (20)
CANCER CELL GENETICS (20)
COLORECTAL CANCER AND OVARIAN CANCER (20)
LUNG CANCER AND BREAST CANCER (20)

NATURAL SCIENCES SYNOPTIC MODULE
**MODULES TBA**

**MODULES TBA**

FUNDAMENTAL CHEMISTRY THEORY & PRACTICAL

ORGANIC/INORGANIC CHEMISTRY SPECIALISM
CORE LAB WORK
INTERMEDIATE ORGANIC SYNTHESIS & SPECTROSCOPY
INTERMEDIATE SYNTHETIC ORGANIC CHEMISTRY
INTERMEDIATE INORGANIC CHEMISTRY

**OPTIONS 10 CREDITS FROM:**
PRINCIPALS IN ANALYTICAL CHEMISTRY (10)
SUSTAINABLE CHEMISTRY (10)

**INORGANIC/PHYSICAL CHEMISTRY SPECIALISM**
CORE LAB WORK
INTERMEDIATE INORGANIC CHEMISTRY
ENERGY, SPECTROSCOPY & SOLID STATE CHEMISTRY (20)

**OPTIONS 10 CREDITS FROM:**
PRINCIPALS IN ANALYTICAL CHEMISTRY (10)
SUSTAINABLE CHEMISTRY (10)

ORGANIC/INORGANIC CHEMISTRY SPECIALISM
NATURAL SCIENCES SYNOPTIC MODULE
ADVANCED LABORATORY TECHNIQUES
ORGANOMETALLIC & ASYMMETRIC SYNTHESIS
PERICYCLIC CHEMISTRY & REACTIVE INTERMEDIATES

**OPTIONS 20 CREDITS FROM:**
BIOINORGANIC & METAL COORDINATION CHEMISTRY (10)
CHEMICAL BIOLOGY & ENZYMES (10)
PROTEINS, BIOSPECTROSCOPY & BIOINFORMATICS (10)
CATALYSIS (10)

**INORGANIC/PHYSICAL CHEMISTRY SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
ADVANCED LABORATORY TECHNIQUES
CHEMICAL BONDING & REACTIVITY
SOLIDS, INTERFACES & SURFACES

**OPTIONS 20 CREDITS FROM:**
BIOINORGANIC & METAL COORDINATION CHEMISTRY (10)
CATALYSIS (10)
STRUCTURAL DETERMINATION METHODS (10)
TOPICS IN INORGANIC CHEMISTRY (10)

CHEMISTRY RESEARCH PROJECT
**OPTIONS MIN 20/MAX 60 CREDITS FROM:**
ADVANCED PHYSICAL CHEMISTRY 1 (10)
CONTEMPORARY ORGANIC SYNTHESIS (10)
INORGANIC & MATERIALS CHEMISTRY A (10)
INORGANIC & MATERIALS CHEMISTRY B (10)
ADVANCED BIOCATALYSIS, BIOSYNTHESIS & CHEMICAL BIOLOGY (10)
ADVANCED PHYSICAL CHEMISTRY 2 (10)
MEDICINE FROM NATURE/PHARMACEUTICAL PROCESS CHEMISTRY (10)
MOLECULAR INTERACTIONS AND SUPRAMOLECULAR ASSEMBLY (10)
NUCLEIC ADICS & BIOORGANIC MECHANISM (10)
ENTERPRISE FOR CHEMISTS (10)

PLANET EARTH: EXPLORING PHYSICAL ENVIRONMENT
20 CREDITS FROM THE FOLLOWING:
ECOLOGY OF NATURAL & MANAGED ECOSYSTEMS (20)
CLIMATE, ATMOSPHERE AND OCEANS
INTRODUCTION TO GIS
ON EARTH AND LIFE

**60 CREDITS FROM:**
ECOSYSTEM PROCESSES (10)
FOREST ECOLOGY & MANAGEMENT (10)
CLIMATE CHANGE SCIENCE (10)
COMPUTATIONAL MODELLING (INTRODUCTION (20)
ENVIRONMENTAL MANAGEMENT FIELD COURSE (10)
PATTERNS OF LIFE (20)
ENVIRONMENTAL CHANGE (20)
FIELDWORK SKILLS: SAMPLING & SURVEYING (10)
TECHNIQUES IN PHYSICAL GEOGRAPHY (20)

NATURAL SCIENCES SYNOPTIC MODULE
**40-60 CREDITS FROM:**
COMPUTATIONAL MODELLING: APPLICATIONS (20)
ECOSYSTEMS FUNCTION AND CONSERVATION (10)
EMERGING CHALLENGES IN BIOGEOGRAPHY (20)
ENVIRONMENTAL BIOTECHNOLOGY (10)
ENVIRONMENTAL MODELLING (20)
PALEOBIOLOGY (10)
GLOBAL CLIMATE CHANGE (20)
QUATERNARY ENVIRONMENTS (20)

RESEARCH PROJECT IN ENVIRONMENT
PROJECT MANAGEMENT
STATISTICS & EXPERIMENTAL DESIGN
WRITING & REVIEWING RESEARCH PROPOSALS
COMMUNICATION & PUBLIC ENGAGEMENT FOR SCIENTISTS
**OPTIONS MIN 0/MAX 10C**
CLIMATE CHANGE MITIGATION (10)
ECOSYSTEM FUNCTION, MANAGEMENT AND CONSERVATION (10)

ENVIRONMENTAL GEOSCIENCE
20 CREDITS FROM THE FOLLOWING:
GLOBAL ENVIRONMENTAL PROCESSES (20)
PHYSICAL LANDSCAPES OF BRITAIN
INTRODUCTION TO GIS
ON EARTH AND LIFE

**60 CREDITS FROM:**
SOILS (10)
RIVER PROCESSES & DYNAMICS (20)
EARTH OBSERVATION (20)
ENVIRONMENTAL GEOCHEMISTRY (10)
SPATIAL DECISION MAKING (20)
TECHNIQUES IN PHYSICAL GEOGRAPHY (20)

NATURAL SCIENCES SYNOPTIC MODULE
**40-60 CREDITS FROM:**
FRESHWATER MANAGEMENT (20)
PALEOBIOLOGY (10)
ENVIRONMENTAL POLLUTANTS (20)
GEOLOGICAL HAZARDS & RESOURCES (20)
GEOPHYSICS & GEOLOGICAL MAPPING (20)
MINERALOGY & PETROLOGY (20)

NATURAL SCIENCES DISSERTATION
**OPTIONS MIN 20/MAX 60 CREDITS FROM:**
PROJECT MANAGEMENT (10)
STATISTICS & EXPERIMENTAL DESIGN (10)
WRITING & REVIEWING RESEARCH PROPOSALS (20)
COMMUNICATION & PUBLIC ENGAGEMENT FOR SCIENTISTS (10)
ADVANCES IN MANAGING RIVERS AND CATCHMENTS (10)

CALCULUS & LINEAR ALGEBRA

VECTOR CALCULUS
DIFFERENTIAL EQUATIONS & FOURIER ANALYSIS

**APPLIED COMPUTATION AND STATISTICS SPECIALISM**
**40 CREFITS FROM FOLLOWING:**
MODELLING WITH DIFFERENTIAL EQUATIONS (20)
INTRODUCTION TO SCIENTIFIC COMPUTING (20)
APPLIED STATISTICS AND PROBABILITY (20)

**OR**

**MATHEMATICAL PHYSICS SPECIALISM**
VECTOR CALCULUS
DIFFERENTIAL EQUATIONS & FOURIER ANALYSIS
MODELLING WITH DIFFERENTIAL EQUATIONS
INTRODUCTION TO MATHEMATICAL PHYSICS

**APPLIED COMPUTATION AND STATISTICS SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
**OPTIONS 50 CREDITS FROM:**
CODING AND CRYPTOGRAPHY (10)
MATHEMATICAL MEDICINE & BIOLOGY (20)
OPTIMIZATION (20)
FLUID DYNAMICS (20)
GAME THEORY (10)
SCIENTIFIC COMPUTATION AND NUMERICAL ANALYSIS (20)

**MATHEMATICAL PHYSICS SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
**OPTIONS 50 CREDITS FROM:**
ADVANCED QUANTUM THEORY (20)
CODING AND CRYPTOGRAPHY (10)
DIFFERENTIAL EQUATIONS (20)
FLUID DYNAMICS (20)
GAME THEORY (10)
RELATIVITY (20)

MATHEMATICS DISSERTATION
**OPTIONS MIN 40/MAX 80CREDITS FROM:**
ADVANCED TECHNIQUES FOR DIFFERENTIAL EQUATIONS (20)
DIFFERENTIAL GEOMETRY (20)
FINANCIAL MATHEMATICS (20)
INTRODUCTION TO QUANTUM INFORMATION SCIENCE (20)
SCIENTIFIC COMPUTING AND C++ (20)
STATISTICAL FOUNDATIONS (20)
BLACK HOLES (20)
COMPUTATIONAL APPLIED MATHEMATICS (20)
TIME SERIES FORECASTING (20)
TOPICS IN BIOMEDICAL MATHEMATICS (20)

FROM NEWTON TO EINSTEIN

**EXPERIMENTAL PHYSICS SPECIALISM**
CLASSICAL FIELDS
EXPERIMENTAL TECHNIQUES & INSTRUMENTATION
THE QUANTUM WORLD

**THEORETICAL PHYSICS SPECIALISM**
THERMAL & STATISTICAL PHYSICS
OPTICS & ELECTROMAGNETISM
**OPTIONS 20 CREFITS FROM FOLLOWING:**
STRUCTURE OF STARS (10)
FORCE AND FUNCTION AT THE NANOSCALE (10)
STRUCTURE OF GALAXIES (10)
INTRO TO SCIENTIFIC COMPUTING (20)

**EXPERIMENTAL PHYSICS SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
PHYSICS LAB PROJECT
ATOMS, PHOTONS & FUNDAMENTAL PARTICLES
THERMAL & STATISTICAL PHYSICS

**THEORETICAL PHYSICS SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
PHYSICS LAB PROJECT
ATOMS, PHOTONS & FUNDAMENTAL PARTICLES
INTRO TO SOLID STATE PHYSICS

PHYSICS RESEARCH PROJECT
**CORE FOR BIOLOGY, CHEMISTRY, GEOGRAPHY, PSYCHOLOGY STUDENTS**
SOLID STATE PHYSICS
**OPTIONS MIN 20/40/MAX 40/60CREDITS FROM:**
ATMOSPHERIC & PLANETARY PHYSICS (10)
FROM ACCELERATORS TO IMAGING (10)
INTRODUCTION TO COSMOLOGY (10)
SOFT CONDENSED MATTER (10)
EXTREME ASTROPHYSICS (10)
SEMICONDUCTOR PHYSICS (10)
THEORETICAL PARTICLE PHYSICS (10)

**BIOLOGICAL PSYCHOLOGY SPECIALISM**
COGNITIVE PSYCHOLOGY 1
BIOLOGICAL PSYCHOLOGY

**BIOLOGICAL PSYCHOLOGY SPECIALISM**
COGNITIVE PSYCHOLOGY 2
NEUROSCIENCE & BEHAVIOUR
RESEARCH METHODS AND ANALYSIS

**BIOLOGICAL PSYCHOLOGY SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
NEUROPSYCHOLOGY APPLED NEUROIMAGING
NEUROPHSYCOLOGY OF ACTION
THE VISUAL BRAIN
**OPTIONS 20 CREDITS FROM:**
ALTRUISM, COOPERATION & HELPING (10)
COGNITIVE DEVELOPMENT & AUTISM (10)
SOCIAL NEUROSCIENCE RESEARCH (20)
MECHANISMS OF LEARNING & PSYCHOPATHOLOGY (20)

**SOCIAL & DEVELOPMENTAL PSYCHOLOGY SPECIALISM**
COGNITIVE PSYCHOLOGY 1
SOCIAL PSYCHOLOGY
DEVELOPMENTAL PSYCHOLOGY

**SOCIAL & DEVELOPMENTAL PSYCHOLOGY SPECIALISM**
COGNITIVE PSYCHOLOGY 2
CONCEPTUAL & HISTORICAL ISSUES
PERSONALITY & INDIVIDUAL DIFFERENCE
SOCIAL & DEVELOPMENTAL PSYCHOLOGY

**SOCIAL & DEVELOPMENTAL PSYCHOLOGY SPECIALISM**
NATURAL SCIENCES SYNOPTIC MODULE
UNDERSTANDING DEVELOPMENTAL DISORDERS
DEVELOPMENTAL DYSLEXIA
**OPTIONS 30 CREDITS FROM:**
EDUCATIONAL PSYCHOLOGY (10)
FORENSIC & MENTAL HEALTH (10)
ALTRUISM, COOPERATION AND HELPING (10)
CLINICAL PSYCHOLOGY (10)
COGNITIVE DEVELOPMENT & AUTISM (10)
SOCIAL NEUROSCIENCE RESEARCH (20)

PSYCHOLOGY DISSERTATION
**OPTIONS MIN 20/40/MAX 60 CREDITS FROM:**
INTRO TO MATLAB PROGRAMMING (10)
PSYCHOLOGICAL ASSESSMENT (20)
ADVANCED METHODS IN PSYCHOLOGY (20)
CURRENT ISSUES IN COGNITIVE NEUROSCIENCES (10)
DATA ANALYSIS FOR NEUROIMAGING (10)
CHILDHOOD CLINICAL AND BEHAVIOURAL DISORDERS (20)