MSc Genes, Environment and Development

http://www.kcl.ac.uk/ioppn/depts/mrc/study/pgtaught/sgdpMSconlyprogramme.aspx

See our video here: https://www.youtube.com/watch?v=18nrWXwItlw

MSc Genes, Environment and Development is a one year, full time programme taught at the MRC Social, Genetic and Developmental Psychiatry Centre at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN). See the link to the course website overleaf for more information.

Funded scholarships are available for this programme for September 2015 – please see our webpage for more information:
http://www.kcl.ac.uk/ioppn/depts/mrc/study/pgtaught/Peter-McGuffin-Anne-Farmer-Prize-Bursaries.aspx

The module structure for the course is shown below:

Module 1: Introduction to Genes, Environment & Development

Credit value: 30 credits
Assessment: coursework essay; oral presentation; journal clubs

This module introduces students to the subject areas that are considered fundamental to an MSc in behavioural genetics and social development, providing an in-depth knowledge of the advances that have been made in this field during recent years with the growing evidence for the role of genes in shaping our behaviour. The module will cover a range of mental health disorders including cognitive disability, attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), anxiety and depression and schizophrenia.

Module 2: Research Methods

Credit value: 60 credits
Assessment: coursework essays; practical lab assignments

This module will cover the molecular mechanisms and techniques, and the specialised analysis methods relevant to interdisciplinary research in this field. Supporting the taught lectures, the students will undertake several practical sessions, acquiring molecular techniques, twin model fitting, genetic epidemiology, statistical genetics and bioinformatics analysis skills. By focusing on current research methods and practical skills, this module will enhance the student's understanding of the research methods used in behavioural genetics, building and developing the knowledge gained from module 1.

Module 3: Psychology and Psychopathology

Credit value: 30 credits
Assessment: written abstract examination; coursework essay

This module will focus on the specialist research into normal and abnormal behaviour, including detailed description of behavioural traits and mental health disorder classification and the role of genetic, environmental and developmental factors and the interaction between these factors in the processes underlying behaviour. The uses and pitfalls of modern classifications and systems of psychiatric diagnosis will be considered. The following subject areas will be covered:

- Developmental psychology
- Social development
- Psychosis and bipolar disorder
- Emotional/behavioural disorders
- Model systems (in vitro and in vivo)

Module 3 will consolidate the knowledge and skills learnt in modules 1 and 2, with a strong emphasis on developing a comprehensive understanding of behavioural traits and specific mental health disorders including cognitive disability, attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), anxiety, depression and schizophrenia.

Module 4: Research Project

Credit value: 60 credits
Assessment: research dissertation; laboratory notebook; poster presentation

This module provides students with the opportunity to work, uninterrupted, on a closely-supervised research project relevant to behavioural genetics for approximately 20 weeks' full-time study. This will enable them to use the specialist knowledge that they have acquired from the previous modules (1-3) to, first, generate testable hypotheses and then, using appropriate laboratory techniques, to obtain empirical data that they can record, analyse, present and critically evaluate in a discussion resulting in conclusions that either support or refute their hypotheses.

The full module list can be found below:

http://www.kcl.ac.uk/ioppn/depts/mrc/study/MScGEDModules2014v3.pdf