# COURSE DETAIL

| MOLECULAR MECHANISMS OF GENE EXPRESSION AND REGULATION |
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| **Country**<br>United Kingdom - England |
| **Host Institution**<br>University College London |
| **Program(s)**<br>English Universities,University College London |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Biochemistry |
| **UCEAP Course Number**<br>122 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>MOLECULAR MECHANISMS OF GENE EXPRESSION AND REGULATION |
| **UCEAP Transcript Title**<br>MOLEC MECHNSM/GENES |
| **UCEAP Quarter Units**<br>6.00 |
| **UCEAP Semester Units**<br>4.00 |

**Course Description**

This course shows how molecular biology is steadily revealing the mechanisms of previously intractable problems, for example, control of gene expression. Topics include gene expression in bacteria (integrated control networks, two component signal transduction systems); transcriptional regulation in higher organisms and molecular techniques for studying gene function (the pre-initiation complex, signals that activate transcription factors, DNA cloning, and complementation techniques for identifying DNA-protein and protein-protein interactions); chromatin structure and gene expression; gene regulation and function in vivo; post transcriptional and translational control of gene expression (RNA splicing, RNA editing and mRNA stability); examples of alternative splicing; and protein synthesis (mechanisms and regulation of translation).

**Language(s) of Instruction**

English

**Host Institution Course Number**

BIOC0020

**Host Institution Course Title**

MOLECULAR MECHANISMS OF GENE EXPRESSION AND REGULATION

**Host Institution Course Details**

**Host Institution Campus**

University College London

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**

Molecular Biosciences

**Course Last Reviewed**

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