

# University of Pretoria Yearbook 2017

## Eukaryotic gene control and development 351 (GTS 351)

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| <b>Qualification</b>          | Undergraduate                                 |
| <b>Faculty</b>                | Faculty of Natural and Agricultural Sciences  |
| <b>Module credits</b>         | 18.00   |
| <b>Programmes</b>             | BSc Biochemistry                              |
|                               | BSc Biotechnology                             |
|                               | BSc Entomology                                |
|                               | BSc Genetics                                  |
|                               | BSc Human Genetics                            |
|                               | BSc Human Physiology                          |
|                               | BSc Human Physiology, Genetics and Psychology |
|                               | BSc Medical Sciences                          |
|                               | BSc Microbiology                              |
|                               | BSc Plant Science                             |
|                               | BSc Zoology                                   |
| <b>Prerequisites</b>          | GTS 251 GS and GTS 261 GS                     |
| <b>Contact time</b>           | 1 practical per week, 2 lectures per week     |
| <b>Language of tuition</b>    | Module is presented in English                |
| <b>Academic organisation</b>  | Genetics                                      |
| <b>Period of presentation</b> | Semester 1                                    |

### Module content

Regulation of gene expression in eukaryotes: regulation at the genome, transcription, RNA processing and translation levels. DNA elements and protein factors involved in gene control. The role of chromatin structure and epigenetic changes. Technology and experimental approaches used in studying eukaryotic gene control. Applications of the principles of gene control in embryonic development and differentiation, cancer and other diseases in humans.

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