

BIOS 2026 MOLECULAR BIOLOGY

Legacy Code 300817

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Student Contribution Band

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Structure of DNA, genes and chromatin.
2. Key processes of DNA replication and protein synthesis including transcription and translation
3. Transcriptional and post-transcriptional regulation of RNA; epigenetics, polyadenylation, RNA splicing and RNA interference.
4. Analysis of DNA and RNA; Polymerase chain reaction (PCR), DNA sequencing, reverse transcriptase PCR, cloning, microarray analysis, and introductory bioinformatics.
5. Techniques of molecular biology; including laboratory practicals and skills in the design, analysis and interpretation of experiments.

Subject Content

Structure of DNA, genes and chromatin.
 Key processes of DNA replication and protein synthesis including transcription and translation
 Transcriptional and post-transcriptional regulation of RNA; epigenetics, polyadenylation, RNA splicing and RNA interference.
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Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Mandatory Group Task
Online Multiple Choice Quiz (Online Problem Solving)	1 hour	15	N	Individual
Laboratory Practical Component and Critical Analysis	1,500 words	45	Y	Individual
Final Examination	2 hours	40	Y	Individual

Prescribed Texts

- Michael M. Cox, Jennifer A. Doudna, Michael O’Donnell, (2015) Molecular Biology- Principles and Practice, 2nd Edition W. H. Freeman, New York