

principles and applications of immunological techniques.

2. Explain the theoretical principles of radioactivity and appreciate the uses of radioisotopes.
3. Explain the theoretical principles of centrifugation techniques and appreciate the scope of their applications.
4. Explain the theoretical principles of electrophoretic and some electroanalytical techniques and some of their applications.
5. Explain the theoretical principles and applications of a range of chromatographic techniques.

Indicative Module Content

Immunological Methods: Basic structure of antibodies, polyclonal and monoclonal antibodies, production & uses. Agglutination & precipitation tests.

Imunodiffusion, immunelectrophoretic, radioimmunological, complement-based and enzyme-linked immunosorbent assays.

Radioactive Isotopes and their Uses: Radioactive decay, measurement of radioactivity, biologically useful radioisotopes and radiological protection.

Centrifugation: Principles, types of centrifuges, separation methods and safety.

Mode of Delivery

This course is delivered by formal lectures, directed study and supporting workshops with appropriate tutorial support.

Assessment Plan

| | Learning Outcomes Assessed |
|-------------|----------------------------|
| Component 1 | 2,3,4,5 |
| Component 2 | 1 |

The examination will be closed book.

The coursework is on Immunological Methods.

Indicative Bibliography

1. REED, R., HOLMES, D., WEYERS, J. AND JONES, A., 2003. *Practical Skills in Biomolecular Sciences*. 2nd ed. Pearson.
2. HOLME, D.J. AND PECK, H., 1998. *Analytical Biochemistry*. 3rd ed. Longman.

Additional Notes

This module covers, at least in part, the following Health Professions Council Standards of Proficiency for Biomedical

Electrophoresis: Principles,
protein and nucleic acid
separation techniques, detection
and applications.

Scientists (035/SOP/BMS/A5 July
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