

	KINGDOM OF SAUDI ARABIA-Imam Mohammad Ibn Saud Islamic University-College of Science المملكة العربية السعودية - جامعة الإمام محمد بن سعود – كلية العلوم قسم الأحياء	
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مفردات الاختبار التحريري للمتقدمين علي برنامج الماجستير التنفيذي في العلوم الجنائية

للعام الجامعي 1448- قسم الأحياء

Below are the topics covered in the Master's in Forensic Science Admission Examination Guide:

		Topics to be Covered
1	General Biology and Life Sciences	• Cell biology and molecular biology fundamentals • Cell organelle's structure and functions • Membrane dynamics • Genetics and inheritance patterns • Human anatomy and physiology • Microbiology and pathogenic organisms • Biochemistry and metabolic processes
2	Chemistry Foundations	• Organic chemistry principles • Inorganic chemistry applications • Analytical chemistry techniques • Physical chemistry concepts • Chemical bonding and molecular structure • Spectroscopic methods
3	Forensic Science Fundamentals	• History and development of forensic science • Legal aspects and court proceedings • Chain of custody and evidence handling • Quality assurance and laboratory standards • Ethical considerations in forensic practice • Expert witness testimony principles
4	DNA Analysis and Molecular Genetics	• DNA structure and replication • PCR (Polymerase Chain Reaction) techniques • RNA structure • Mitochondrial DNA • DNA degradation and mixture interpretation

Reference List

1. **Levine, B.** (2013). *Principles of Forensic Toxicology* (4th ed.). Academic Press.
2. **Houck, M. M., & Siegel, J. A.** (2020). *Fundamentals of Forensic Science* (4th ed.). Academic Press.
3. **Butler, J. M.** (2015). *Advanced Topics in Forensic DNA Typing: Interpretation*. Academic Press.
4. **Saferstein, R.** (2020). *Criminalistics: An Introduction to Forensic Science* (12th ed.). Pearson.
5. **White, P. C.** (2017). *Crime Scene to Court: The Essentials of Forensic Science* (4th ed.). Royal Society of Chemistry.
6. **Goodwin, W., Linacre, A., & Hadi, S.** (2011). *An Introduction to Forensic Genetics* (2nd ed.). John Wiley & Sons.
6. **Buckleton, J., Bright, J. A., & Taylor, D.** (2016). *Forensic DNA Evidence Interpretation* (2nd ed.). CRC Press.
8. **DiMaio, V. J., & DiMaio, D.** (2001). *Forensic Pathology* (2nd ed.). CRC Press.
9. **Spitz, W. U.** (2006). *Spitz and Fisher's Medicolegal Investigation of Death* (4th ed.). Charles C Thomas.
12. **Petraco, N., & Kubic, T.** (2004). *Color Atlas and Manual of Microscopy for Criminalists, Chemists, and Conservators*. CRC Press.