

BACE Study Materials and Resource Guide

Resource Title	Resource Description	Content Review Documents	Video Tutorials	Online Quizzes	Lesson Plans	Interactive Tutorials	Labs & Activities	Research/ Industry Articles
cGMP Review (located in the UFEL Practice Exam Course)	An overview of the regulations involved when working in a controlled environment, such as current Good Manufacturing Practices (cGMP) and Good Documentation Practices, as well as info on the organization of a typical biotech company and the types of jobs therein.	X						X
BioRad Life Science Tutorial Videos	These basic technique videos provide training for many core biotechnology skills. Categories include Laboratory Skills, Microbiology & Cell Culture, DNA Structure & Analysis, PCR, Protein Structure & Analysis, and Immunological Applications.		X					
Khan Academy: Biotechnology Unit	Khan Academy's Biotechnology unit offers an introduction to modern biotechnology and it's uses in research, focusing on DNA structure/ analysis and techniques such as PCR, cloning and DNA sequencing.	X	X	X				
Omni Significant Figures Calculator	The significant figures calculator performs operations on significant figures and shows a step-by-step solution! Also provides a refresher on significant figures and the rules to be used in calculations.					X		
Amgen: Introduction to Biotechnology	One of the world's leading biotechnology companies, Amgen provides an excellent introduction to the field of biotechnology, along with information about discovering and developing new medicines, and the future of biotechnology.	X						
PBS Collections- Biotechnology	This PBS Learning Media Collection includes resources for common biotechnology laboratory techniques and concepts. It also includes biotechnology career profiles to show the wide-range of job opportunities available in this industry.	X	X		X	X		X
PBS Resources- Genetics and Heredity	PBS Learning Media has a wide variety of genetic and heredity resources including, but not limited to, the following concepts: DNA, RNA, protein, genetic disorders, and genetic mutations.	X	X		X	X	X	
Learn Genetics	The Genetic Science Learning Center is home to a number of resources on genetics and cell biology, as well as an excellent series of virtual labs including PCR, gel electrophoresis, microarrays, etc.	X	X			X	X	
National Center for Biotechnology Information	NCBI advances science and health by providing access to biomedical and genomic information, and is home to popular bioinformatics tools (e.g. BLAST), and literature resources (e.g. PubMed).							X
Science Primer: Serial Dilutions	The widget follows the relationship between volume of solvent, number of molecules of solute, and concentration of solution over a set of four dilutions. Practice problems are also available.			X		X		
Biotech Careers	Biotech Careers is an in-depth database of information about the industry, organized around Careers, Job Areas, Internships, Stories & Blogs, Work Experiences, and Biotech Companies.							X