

Texas A&M University Marketable Skills - Bachelor of Science in Microbiology

Program	Microbiology
Degree	BS
Department	Biology
Contact Name	Thomas D. McKnight
Contact Phone	979-845-3896

Outcome	Master the depth of knowledge required for a degree
Marketable Skills	<ul style="list-style-type: none"> • Knowledge of microbial biodiversity • Knowledge of microbial genetics and physiology • Knowledge of how microbes affect health of humans, other animals, and plants • Understanding of experimental methods used to increase our knowledge of microorganisms • Knowledge of how microbes can be used in industrial processes

Outcome	Demonstrate critical thinking
Marketable Skills	<ul style="list-style-type: none"> • Use logic and reasoning to interpret scientific results • Identify proper controls to use for experiments • Identify and assess alternative explanations that could account for given results • Identify non-scientific and pseudoscientific arguments • Design methods for testing hypothesis • Apply critical thinking to all problems, not just scientific ones

Outcome	Communicate effectively
Marketable Skills	<ul style="list-style-type: none"> • Ability to make effective oral presentations • Ability to communicate scientific ideas and concepts in writing • Ability to listen to and interpret scientific presentations • Ability to read and summarize scientific publications • Ability to adjust technical depth of presentations to be appropriate for the audience • Ability to criticize arguments in a rational and non-personal manner

Outcome	Work collaboratively
Marketable Skills	<ul style="list-style-type: none"> • Ability to work in teams to perform research • Ability to work in teams to develop presentations • Ability to understand and follow oral instructions and protocols written by others • Ability to lead team projects and motivate others

Outcome	Engaging in life-long learning
Marketable Skills	<ul style="list-style-type: none"> • Expanding knowledge of field by reading scientific literature • Ability to search relevant databases for new scientific literature or information • Willingness to update ideas in light of new information • Willingness to take advantage of training opportunities as they arise

Outcome	Demonstrate personal, corporate, and social responsibility
Marketable Skills	<ul style="list-style-type: none"> • Ability to understand and comply with all safety guidelines • Ability to identify safety concerns and bring them to the attention of supervisors • Understand and articulate ethical, legal, and societal implications of research projects