

Course Title	Mathematics for Management
Course code	Math 120
Pre-required courses	Math 110
Course Level	Second
Credit Hours	3 hours
Teaching Language	Arabic
Course Description	
<p>This course is designed to give students expanded knowledge of mathematic applications for personal use and business applications. It also aims to deepen students' abilities to solve problems and economic problems mathematically and to overcome them by learning the concept of related topics to functions such as limits, continuity, differentiation and integration. Finally, the application of functions on some economic issues can help students to acquire the needed skills to recruit mathematics in their field of study.</p>	
Course Aims	
<p>At the end of this course, the students will be able to:</p> <ul style="list-style-type: none"> • Use some of the mathematical methods in solving various issues. • Understand the concept of functions and its types in order to employ them in several applications and a variety of economic issues. • Understand the meaning of simple profit and compound profit and differentiate between of them. • Recognize the concept of limits in general and applied it to some economic functions and applications. • Make use of concept of differentiation and its types to apply them to some economic applications where students will be able to solve some of the economic problems. • Introduce the concept of integration and its rules in order to investigate them in solving a various economic problems. 	
Course Contents:	
<p>Groups, Cartesian axis, Cartesian product on groups</p> <ul style="list-style-type: none"> • Definition of functions and represent them graphically • Kinds of functions • Arithmetic operations on functions • Types of linear equations • Parallel and perpendicular lines • Economic applications of functions <p>Financial Mathematics:</p> <ul style="list-style-type: none"> • Simple Profit • Compound Profit <p>Limits and continuity:</p> <ul style="list-style-type: none"> • Definition of limit • Theories of limits • Properties of limits • Economic application of limits <p>The derivatives:</p> <ul style="list-style-type: none"> • Derivative definition • Derivatives Rules • The chain rule • Partial differentiation 	

- Derivative of exponential function
- Derivative of the logarithmic function
- Higher Derivatives
- Slope of the tangent
- Economic applications of derivatives

Integrations:

- The concept of indefinite integral
- Rules for integration
- Integration methods (Integration by parts & by substitution)
- Areas and volumes
- Economic application for integrals