

Date of Creation-April 25, 2010										
Calculus 1 Refresher Course										
Week 1										
Objectives	Assessment of the Objective	Formative assessment	Activities	Teaching	AP & AB Calculus	Seat Time	Online	Synchronous	Precious	
Objective 1										
Participants will converse and become comfortable with the online environment.	Participants will successfully post to questions and to a general forum discussion.		Participants will Log on to http://moodle.nyit.edu/p and log into the class, post to the forum discussion and answer questions.		N/A	15 minutes				
Objective 2										
Participants will be able to list course objectives and expectations	Participants will discuss and interpret expectations		Participants will respond to objectives and expectations and post to forum.		N/A	30 minutes				differentiation Special Resources
Objective 3										
Participants will be able to evaluate limits using properties of limits.	Participants will list limit properties and give one example for each.	Participants will respond to at least one of the other posts and comment on clarity of examples.	Participants will search resources to find quality and appropriate examples.		Stand 2.1 Demonstrate the understanding of limit properties, e.g., limit of a constant, sum, product and quotient.	60 minutes				
Objective 4										
Participants will be able to determine the equation of the tangent and normal line to a curve at a point.	Participants will compose a question and determine the tangent and normal line.	Participants will respond to at least one of the other posts and comment onf the clarity and appropriateness of examples.	Participants will derive or find a question applicable to the tangent and normal line.		2.5 Demonstrate an understanding and application of the formal definition of derivative of a function at a point and the	45 minutes				
Objective 5										
Objective 6										
					Total	2.5 hours				
Week 2										
Objectives	Assessment of the Objective	Formative assessment	Activities	Teaching Strategies	AP & AB Calculus Mathematics Standards	Seat Time total	Online Time	Synchronous time	Precious Attributes	
Objective 1										
Participants will be able to determine the derivative of a function in general and at a point.	Participants will write all rules for determining derivatives with an example for each.	Participants will comment on at least one other post regarding clarity and appropriateness of examples.	Participants will search sources and find examples to demonstrate derivatives.		2.5 Demonstrate an understanding and application of the formal definition of derivative of a	50 minutes				
Objective 2										
Participants will be able to	Participants will write a real life				2.11 Evaluate the average					

Week 5										
Objectives										
Objective 1	Assessment of the Objective	Formative assessment	Activities	Teaching Strategies	AP & AB Calculus Mathematics Standards	Seat Time total	Online Time	Synchronous time	Precious Attributes	
Participants will be able to calculate the distance traveled by computing the area under a velocity function.										
Objective 2	Participants will write and solve a problem calculating the distance traveled by computing the area under the velocity function.	Participants will comment on at least one other post regarding clarity and appropriateness of examples.	Participants will search sources, write and solve an example calculating the distance traveled by computing the area.		3.2 Use integration techniques to find distance and velocity from acceleration with initial conditions	50 minutes				
Participants will be able to estimate the area under a graph of a nonnegative function using a rectangular approximation method.										
Objective 3	Participants will write and demonstrate the process for using rectangular approximation.	Participants will comment on at least one other post regarding clarity and appropriateness of examples.	Participants will search sources and explain the rectangular approximation method they found useful.		3.3 Apply the definite integral concepts such as area, approximations to the definite integral by using rectangles and the limit as a sum	50 minutes				
Participants will be able to explain the relationship between areas and integrals										
Objective 4	Participants will demonstrate and explain through example the relationship between areas and integrals.	Participants will comment on at least one other post regarding clarity and appropriateness of examples.	Participants will search sources, write and solve an example distinguishing the relationship between areas and integrals.		3.1 Use techniques of integration including basic integration formulas, integration by substitution, change of variables, and simple integration by parts	50 minutes				
Participants will be able to calculate the total area between a function and the x-axis.		Participants will comment on at	Participants will search							

