# Jefferson County Educational Service Center Virtual Learning Academy Required Course Materials MATHCALCAP: AP CALCULUS AB

#### **Unit 01: Introduction**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### Unit 02: Prerequisites for Calculus - Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## Unit 03: Prerequisites for Calculus - Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## Unit 04: Prerequisites for Calculus – Part 3

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## Unit 05: Limits and Continuity – Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

# Unit 06: Limits and Continuity - Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### Unit 07: Derivatives - Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

CALCULUS\_CONTANDDIFF\_ILARIA installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

#### Unit 08: Derivatives - Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### **Unit 09: Mid-Semester Review**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

HELICOPTERBUNGEEJUMP installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

#### Unit 10: Derivatives - Part 3

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### Unit 11: Derivatives – Part 4

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### Unit 12: Derivatives - Part 5

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## Unit 13: Applications of Derivatives – Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

CRITICAL\_POINTS installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 14: Applications of Derivatives - Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

CONCAVITY installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 15: Applications of Derivatives – Part 3

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

CALCACT06\_OPTIMIZATION\_EN installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 16: Applications of Derivatives – Part 4

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

# Unit 17: Applications of Derivatives - Part 5

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### **Unit 18: First Semester Exam**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

SHUTTLEASCENT installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

## Unit 19: The Definite Integral - Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## Unit 20: The Definite Integral - Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

Calculus\_RiemannSums installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

#### Unit 21: The Definite Integral - Part 3

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

FTC\_2 installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

## Unit 22: The Definite Integral - Part 4

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

AverageRollerCoaster installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 23: Differential Equations - Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

Slope\_Fields installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 24: Differential Equations - Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

# Unit 25: Differential Equations - Part 3

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

InfestationToExtermination installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

#### Unit 26: Mid-Semester Review

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

ExamPrep installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

## Unit 27: Applications of Definite Integrals – Part 1

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## Unit 28: Applications of Definite Integrals – Part 2

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

AreaBetween installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

## Unit 29: Applications of Definite Integrals – Part 3

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

Solid\_Disks installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

Visualizing\_Solids\_of\_Revolution\_Washers installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 30: Applications of Definite Integrals – Part 4

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### Unit 31: Final Test Review

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

Conquer\_the\_Calculus\_Exam\_with\_the\_Nspire installed on the Graphing Calculator (Instructions for downloading the program are provided in the content section of the unit.)

# Unit 32: Preparation for AP Test

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

# **Unit 33: Preparation for AP Test**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

## **Unit 34: Preparation for AP Test**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

# **Unit 35: Preparation for AP Test**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator

#### **Unit 36: Second Semester Final**

TI-Nspire CX or TI-Nspire CX CAS graphing calculator or any model of TI-Nspire graphing calculator