

# 2019 AP Calculus BC Institute Details

**We look forward to your participation in our AP Calculus BC Institute on the weekdays of June 19-28, 2019 (with online preparation June 12-14) at Francis Marion University in Florence, SC.**

This institute is a graduate level course that targets secondary mathematics teachers in public high schools in South Carolina who are currently teaching AP Calculus BC without AP endorsement, who will be teaching AP Calculus BC for the first time next year, and who are teaching the "lead-in" course to AP Calculus BC, namely algebra trigonometry, or precalculus. Most days consist of content lectures by Dr. Thomas Fitzkee and problem-working sessions and graphing calculator demonstrations by Mrs. Vicki Carter. As graphing calculators are now required in the AP Calculus BC course, this technology will be used throughout the course with appropriate instruction of its use in each of the major subject areas.

Dr. Fitzkee, Chair and Professor of Mathematics at Francis Marion University, will be the Director of the institute. Dr. Fitzkee has served as a national Reader of AP Calculus Exams for ten years and hosted an AP Calculus Institute at FMU for five years. Mrs. Vicki Carter is the Master-Teacher for this course. She is an instructor and math department head at West Florence High School. She has taught AP Calculus for over thirty years and has served as the master teacher in eleven previous AP Calculus BC Institutes. Through her work with College Board, she served as an AP Calculus Table Leader in 2008-2011, an AP Calculus Question Team Member in 2010-2011, a member of the AP Calculus Course and Exam Review Commission in 2011-12, the AP Calculus Question Leader in 2012-2015, a member since 2010 and Co-Chairman in 2014-17 of the AP Calculus Development Committee, and AP Calculus Alternate Exam Leader in 2018, member of the AP Calculus Instructional Development Team in 2017-2019, and AP Calculus International Exam Leader in 2019. Mrs. Carter also has extensive knowledge of the Texas Instruments-Nspire handheld (calculator) which has revolutionized the AP Calculus Exam. The TI-Nspire is now an essential technology tool used on the AP Calculus exam. She has led TI professional development seminars throughout the country.

**Online preparation will occur on June 12-14.** The online preparation will review precalculus topics. It will involve online lecture videos, assignments, collaboration with instructors and fellow teachers, and a pretest. The assignments and pretest will be from an online etextbook.

**The institute officially begins on June 19 with lunch at 12:00pm in the Cottage or Ervin Dining Hall, depending upon number of teachers participating.** A campus map is available online <http://www.fmarion.edu/campus>. The course will meet in room LSF308 of the Leatherman Science Facility (June 19 at 1:00pm – 5:00pm, and June 20-21 and 24-28 at 8:30am – 5:00pm).

Teachers have the choice of staying in University housing or commuting. Parking permits will be issued on June 11 in class. These permits should be hung from the rearview mirror (not placed on the dashboard) at all times while on campus. Public Safety reserves the right to stop any car on campus at night that does not display a parking permit.

**Payment of Registration fee, Housing fee (if applicable), and submission of forms included in this mailing (Payment form, Information form, and Medical and Emergency Contact Information form) are due by June 5, 2019. Forms and fee(s) can be submitted separately as completed.**

Please do not hesitate to contact Mrs. Maria McCormick ([amccormick@fmarion.edu](mailto:amccormick@fmarion.edu) or 843-661-1589) or Dr. Fitzkee ([tfitzkee@fmarion.edu](mailto:tfitzkee@fmarion.edu)) if you have any questions. Information is also available online at <http://people.fmarion.edu/tfitzkee/apcalculus.htm>.

# Materials for the AP Calculus BC Institute

Please bring a calculus book of your choice (preferably the text used at your school) and feel free to bring any other study aids you think might be useful. Please bring a graphing calculator as we will use them extensively during the Institute. We recommend a TI-84, TI-89, or TI-Nspire calculator as we will use those types in classroom demonstrations and discussions. It will be very helpful if you also know how to use the graphing capabilities of your calculator. We will use the TI-Nspire CAS Handheld most often because you will be given the TI-Nspire CAS Teacher software and other materials listed below for free!

- 1) Materials from College Board
- 2) Calculus etextbook
- 3) TI-Nspire CAS Teacher Software
- 4) "Multiple Choice and Solutions" from D&S Marketing

This is an intensive course for nine days that covers a great deal of material. Therefore, please review Precalculus topics on your own. Precalculus topics include domain, range, graphs, translations, and transformations of the elementary functions. Special emphasis should be placed on trigonometric, exponential, and logarithmic functions.

Finally, come prepared to work hard and have fun (mathematically speaking). If it is possible, reside on campus rather than commute. In previous years, the teachers who resided on campus received much more from the course than those who were commuting. The reasons are fairly obvious but some of the most compelling are as follows:

1. The homework assignments are extensive and those who reside can help each other and work together.
2. Those who reside have ample opportunities to share teaching methods and strategies.
3. Perhaps most importantly, staying on campus limits distractions like housework, yardwork, childcare, etc.
4. A compromise might be to reside during the week and go home over the weekends.

Because the Institute runs from June 19-28, the included weekend can be a time to "catch up" and "rest up". Part of each class day will be in informal problem sessions, and there will also be about four hours of lecture most days.

If you are currently teaching calculus, be prepared to help the others and share with us the topics, methods, etc. that you have found useful and effective. If you are not teaching calculus, come prepared to learn a great deal. It sounds tough, but it can be a very rewarding experience.

## Housekeeping Details

**Teachers staying on campus should report to the Allston Housing Office 10:00a.m. - 12:00p.m. on June 19 to check-in.**

You are scheduled to stay in the Forest Villas which have individual bedrooms and common dining area, kitchen, living room and (two) bathrooms. **You will need to plan your own meals for breakfast and supper.** Please bring single long bed sheets and bath linens and a pillow. You might also bring a reading lamp since the rooms are equipped with only overhead lights.

For housing questions, please contact Cheryl Tuttle in the Housing Office at (843) 661-4684 (<http://www.fmarion.edu/housing/>).

The Library will also be available for evening study. You may also bring bathing suits, sports clothes, and racquetball and tennis equipment. You have full use of the Smith University Center which has basketball courts, racquetball courts, weight room, game room, and indoor pool, and outdoor tennis courts and the outdoor pool.

# 2019 AP Calculus BC Institute Payment Form

## (Due June 5)

*Please complete the following requested information:*

Name: \_\_\_\_\_

Registration Fee of \$90.

Indicate your choice by checking the appropriate box:

Housing Fee of \$237 (which includes housing June 19-28 and facility usage fee).

OR

I will commute.

If paying with a Credit Card,  
please call the Accounting/Cashier's Office at (843) 661-1597.

*Regular hours of operation are Monday – Friday: 8:00 a.m. – 5:00 p.m.*

*Summer hours (beginning May 6) of operation are Monday – Thursday: 8:00 a.m. – 5:15 p.m.*

If paying by check,  
please make checks payable to FRANCIS MARION UNIVERSITY  
(with AP Calculus BC Institute written in the Memo section)

Mail or email this form to:  
Maria McCormick  
Department of Mathematics  
Francis Marion University  
Post Office Box 100547  
Florence, South Carolina 29502  
amccormick@fmarion.edu

# 2019 AP Calculus BC Institute Information Form

## (Due June 5)

*Please complete the following requested information even though you have previously completed a similar form:*

Name (first, middle, last) \_\_\_\_\_ Previously used last name \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Social Security Number: \_\_\_\_\_

Home Address: \_\_\_\_\_

City/State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone number: (     ) \_\_\_\_\_ Email: \_\_\_\_\_

Last Institution Attended: \_\_\_\_\_ Degree Earned: \_\_\_\_\_ Degree Date: \_\_\_\_\_

**A copy of SC Driver's License or Proof of Citizenship (Birth Certificate, Passport) will be required on the first day of class.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Francis Marion University is a non-smoking campus!!***

*Mail or email this form to:  
Maria McCormick  
Department of Mathematics  
Francis Marion University  
Post Office Box 100547  
Florence, South Carolina 29502  
amccormick@fmarion.edu*

# Medical and Emergency Contact Information Form

## (Due June 5)

Please fill this form out completely.

NAME: \_\_\_\_\_

DATE OF BIRTH: \_\_\_\_\_

HOME ADDRESS: \_\_\_\_\_

*Street/P.O. Box*

*City*

*State*

*Zip*

TELEPHONE: (Home) \_\_\_\_\_ (Cell) \_\_\_\_\_

NAME OF EMERGENCY CONTACT: \_\_\_\_\_

TELEPHONE: (Home) \_\_\_\_\_ (Cell) \_\_\_\_\_

Please check those that apply:

<b>CHRONIC AILMENTS:</b>		<b>ALLERGIES:</b>	
Asthma or Other Respiratory Problems		Medication	
Diabetes or Hypoglycemia		Bee Sting/Insect Bites	
Hemophilia or Other Bleeding Problems		Foods	
Circulatory or Heart Problems		Other Allergies:	
Epilepsy			
Other:			

Details: \_\_\_\_\_

\_\_\_\_\_

Current Medications, If Any: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date of Last Tetanus Shot: \_\_\_\_\_

Blood Type: \_\_\_\_\_

Mail or email this form to:  
Maria McCormick  
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Francis Marion University  
Post Office Box 100547  
Florence, South Carolina 29502  
amccormick@fmarion.edu