



Dr. Raynor explains to student on how to streak an agar plate.

FSU BIOMEDICAL SCIENCE SUMMER CAMP APPLICATION

<https://www.uncfsu.edu/assets/Documents/Biology/FSU-RISE/BSSC%20final%20Application%202019a.pdf>



Please send tax-exempt donations to :
FSU Biomedical Science Summer Camp
Fayetteville State University
1200 Murchison Road Fayetteville, NC 28301

*Enrichment Activities include seminars on preparing for college, Biomedical Science/STEM-related careers, and team building exercises.



General Program Information

Name: FSU Biomedical Science Summer Camp

Type: Residential Summer Enrichment Program

Location: BCBE 255

Dates: June 16-21 or June 23-28, 2019

Application Deadline: April 31, 2019

Cost: \$300

Contact: Nakia Walcott: nswalcott@uncfsu.edu

or 910-672-1081

Eligibility

- ◆ Must be a high school rising freshman to rising senior
- ◆ Must be interested in science or health related careers
- ◆ Must commit to the satisfactory completion of all components of the camp
- ◆ Must submit a completed application, 2 letters of recommendation from teachers, and a \$300 program fee.

Program Benefits

- ◆ Enhance skills in math, science, technology, and critical thinking for academic success in college
- ◆ Gain hands-on laboratory science experience using cutting-edge laboratory instruments and technology
- ◆ Explore health and biomedical science fields
- ◆ Receive a certificate of completion upon successful completion of summer camp
- ◆ Field trip to biomedical research facility



***“PREPARING FOR CAREERS IN
SCIENCE and MEDICINE”***

***Fayetteville State University
Biomedical Science Summer
Camp (FSU-BSSC)***

for

***Rising High School Freshman,
Sophomore, Junior & Seniors***

FACTS

Statistics indicate that underrepresented minority (URM) groups, including African-Americans, Hispanics, Native Alaskans,

Native Americans, Native Hawaiians and Native Pacific Islanders continue to experience high dropout rates, low graduation rates, and low enrollment in graduate programs. At the same time, trends indicate that these groups will constitute an important part of the population of the United States by year 2050. Given these facts, it is crucial to prepare these groups for post-secondary education and careers in science, technology, engineering, and mathematics (STEM) fields, which they are underrepresented. It has been shown that early engagement in inquiry-based lab experiences and critical thinking building activities are critical elements for preparing URM students for post-secondary studies and careers in STEM fields. The Fayetteville State University Biomedical Science Summer Camp (FSU-BSSC) will provide students an intensive one week educational experience, which will help strengthen their math, science, technology and critical thinking skills for success in college.



CAMP INFORMATION

The Fayetteville State University Biomedical Science Summer Camp (FSU-BSSC) is a one-week, residential math and science enrichment program for rising high school freshman through rising seniors. The goal of the camp is to increase students' interest and preparation for pursuing science, technology, engineering, and mathematics (STEM) post-secondary education and careers. Participants will engage in an intensive, hands-on, biology-based science laboratory experience in which they will apply the Scientific Method and critical thinking skills to obtain laboratory results. The laboratory experience will consist of one of four science modules each year including: DNA Transformation of pGlo DNA; Plasmid DNA Isolation and Purification; Restriction Digestion of Lambda DNA; and Genetics: Amplification of *Alu* genes in buccal cells by polymerase chain reaction (PCR). Additionally, activities such as gel electrophoresis, gene mapping and calculation of unknown sizes of DNA fragments will be taught with modules to improve students' analytical and problem-solving skills.

Students will also participate in seminars and workshops to broaden their understanding of health disparities and the critical need for more URM in biomedical research and health careers. Additionally, students will attend a field trip to research facility to learn more about the field of biomedicine and educational pathways leading to the field. Finally, students will take a comprehensive examination and make group presentations on their science laboratory projects during the Closing and Awards Ceremony on the last day of the program. Outstanding performing students will receive awards, while all participants will receive certificates. Pre- and Post test scores will be evaluated to determine the effectiveness of FSU-BSSC in strengthening students' math, science, technology and critical thinking skills.

Dr. James E. Raynor, a FSU professor and a 20 plus -years veteran in working with minority enrichment programs, has an outstanding record for developing critical thinkers in science. In fact, Dr. Raynor received a number of awards for mentoring and preparing students for careers in science. Several of Dr. Raynor's former students have given testimonies that Dr. Raynor has helped develop life-long skills that were instrumental in the successful pursuit of their career goals.