**FIRE - FIRST-YEAR INNOVATION & RESEARCH EXPERIENCE**

**FIRE120 FIRE SEMESTER 1 (3 Credits)**
Engages the research process through the design, research, collaborative authorship and iterative review-based refinement of research proposals. Students find and analyze primary literature, think creatively, author and communicate research proposals in a scholarly fashion and work collaboratively to solve scientific and societal problems using technology, delegation and productive team communication.

**Additional Information:** This is the first course in the FIRE (First-Year Innovation & Research Experience) program sequence.

**FIRE150 FIRE SEMESTER 2: Antibiotic Resistance (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Antibiotic Research research stream.

**Recommended:** FIRE120.

**FIRE151 FIRE SEMESTER 2: Sustainability Analytics (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Sustainability Analytics research stream.

**Recommended:** FIRE120.

**FIRE152 FIRE SEMESTER 2: Environmental Pathogens (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Environmental Pathogens research stream.

**Recommended:** FIRE120.

**FIRE153 FIRE SEMESTER 2: Found In Translation (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Found In Translation research stream.

**Recommended:** FIRE120.

**FIRE154 FIRE SEMESTER 2: Risk Communication & Resilience (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Risk Communication and Resilience research stream.

**Recommended:** FIRE120.

**FIRE155 FIRE SEMESTER 2: Terrapin Genome Project (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Terrapin Genome Project research stream.

**Recommended:** FIRE120.

**FIRE157 FIRE SEMESTER 2: Addiction Science (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Addiction Science research stream.

**Recommended:** FIRE120.

**FIRE160 FIRE SEMESTER 2: Transgenerational Brain Initiative (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Transgenerational Brain Initiative research stream.

**Recommended:** FIRE120.

**Restriction:** Must be in the program FIRE.

**FIRE162 FIRE SEMESTER 2: Once and Future Planet (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Once and Future Planet research stream.

**Recommended:** FIRE120.

**Restriction:** Must be in the program FIRE.

**FIRE163 FIRE SEMESTER 2: Animal and Human Relationships (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Animal and Human Relationships research stream.

**Recommended:** FIRE120.

**Restriction:** Must be in the program FIRE.

**FIRE164 FIRE SEMESTER 2: Autonomous Unmanned Systems (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Autonomous Unmanned Systems research stream.

**Recommended:** FIRE120.

**Restriction:** Must be in the program FIRE.

**FIRE165 FIRE SEMESTER 2: Designing Innovations (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Designing Innovations research stream.

**Recommended:** FIRE120.

**FIRE166 FIRE SEMESTER 2: Immunogenetics (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining this research group.

**Recommended:** FIRE120.

**FIRE167 FIRE SEMESTER 2: Felons not Families (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Felons not Families research stream.

**Recommended:** FIRE120.

**FIRE170 FIRE SEMESTER 2: Phillips Virtual Culture (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Phillips Virtual Culture research stream.

**Recommended:** FIRE120.

**FIRE171 FIRE SEMESTER 2: Capital One Machine Learning (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Capital One Machine Learning research stream.

**Recommended:** FIRE120.

**FIRE172 FIRE SEMESTER 2: Engineering Biosensors (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Engineering Biosensors research stream.

**Recommended:** FIRE120.

**FIRE173 FIRE SEMESTER 2: Deep Brain Neurotech (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the Neural Systems research stream.

**Recommended:** FIRE120.

**FIRE174 FIRE SEMESTER 2: African American Digital Humanities - Digital Archives (3 Credits)**
FIRE SEMESTER 2 course for students in the FIRE program joining the African American Digital Humanities - Digital Archives research stream.

**Recommended:** FIRE120.

**FIRE190 FIRE SEMESTER 2 (2 Credits)**
This is the second course in the FIRE (First-Year Innovation & Research Experience) program sequence. Students in this course join a research stream and gain discipline-specific training in that lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.

**Recommended:** FIRE120.
FIRE198 FIRE SEMESTER 2 (2 Credits)
This is the second course in the FIRE (First-Year Innovation & Research Experience) program sequence. Students in this course join a research stream and gain discipline-specific training in that lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.
Recommended: FIRE120.
Repeatable to: 2.0 credits.

FIRE250 FIRE SEMESTER 3: Antibiotic Resistance (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Antibiotic Research research stream.
Prerequisite: FIRE150.

FIRE251 FIRE SEMESTER 3: Sustainability Analytics (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Sustainability Analytics research stream.
Prerequisite: FIRE151.

FIRE252 FIRE SEMESTER 3: Environmental Pathogens (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Environmental Pathogens research stream.
Prerequisite: FIRE152.

FIRE253 FIRE SEMESTER 3: Found In Translation (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Found In Translation research stream.
Prerequisite: FIRE153.

FIRE254 FIRE SEMESTER 3: Risk Communication & Resilience (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Risk Communication and Resilience research stream.
Prerequisite: FIRE154.

FIRE255 FIRE SEMESTER 3: Terrapin Genome Project (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Terrapin Genome Project research stream.
Prerequisite: FIRE155.

FIRE257 FIRE SEMESTER 3: Addiction Science (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Addiction Science research stream.
Prerequisite: FIRE157.

FIRE260 FIRE SEMESTER 3: Transgenerational Brain Initiative (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Transgenerational Brain Initiative research stream.
Prerequisite: FIRE160.

FIRE262 FIRE SEMESTER 3: Once and Future Planet (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Once and Future Planet research stream.
Prerequisite: FIRE162.

FIRE263 FIRE SEMESTER 3: Animal and Human Relationships (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Animal and Human Relationships research stream.
Prerequisite: FIRE163.

FIRE264 FIRE SEMESTER 3: Autonomous Unmanned Systems (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Autonomous Unmanned Systems research stream.
Prerequisite: FIRE164.

FIRE265 FIRE SEMESTER 3: Designing Innovations (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Designing Innovations research stream.
Prerequisite: FIRE165.

FIRE266 FIRE SEMESTER 3: Immunogenetics (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining this research group.
Prerequisite: FIRE166.

FIRE267 FIRE SEMESTER 3: Felons not Families (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Felons not Families research stream.
Prerequisite: FIRE167.

FIRE270 FIRE SEMESTER 3: Phillips Virtual Culture (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Phillips Virtual Culture research stream.
Prerequisite: FIRE170.

FIRE271 FIRE SEMESTER 3: Capital One Machine Learning (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Capital One Machine Learning research stream.
Prerequisite: FIRE171.

FIRE272 FIRE SEMESTER 3: Engineering Biosensors (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Engineering Biosensors research stream.
Prerequisite: FIRE172.

FIRE273 FIRE SEMESTER 3: Deep Brain Neurotech (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the Deep Brain Neurotech research stream.
Prerequisite: FIRE173.

FIRE274 FIRE SEMESTER 3: African American Digital Humanities - Digital Archives (3 Credits)
FIRE SEMESTER 3 course for students in the FIRE program joining the African American Digital Humanities - Digital Archives research stream.
Prerequisite: FIRE174.