|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Wk 1** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Overview | Chemistry 1 | Professional Development | Chemistry 1 | Professional Development |
| 10:00 | Team Building | Biology 1 | Biology 1 |
| 11:00 | Data Science 1 | Seminar | Data Science 1 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Team  Building | Responsible Conduct of Research | Racial/Ethnic  Health  Disparities | Human  Subjects Certification | Social Determinants of Health |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 3:50 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 2** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 1 | Chemistry 1 | Professional Development | Chemistry 1 | Professional Development |
| 10:00 | Biology 1 | Biology 1 | Biology 1 |
| 11:00 | Data Science 1 | Data Science 1 | Seminar | Data Science 1 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Basics of Qualitative Research | Research  Project | Basics of Qualitative Research | Research  Project |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 3** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 1 | Chemistry 1 | Professional Development | Chemistry 1 | Professional Development |
| 10:00 | Biology 1 | Biology 1 | Biology 1 |
| 11:00 | Data Science 1 | Data Science 1 | Seminar | Data Science 1 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Basics of Qualitative Research | Research  Project | Basics of Qualitative Research | Research  Project |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 4** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 1 | Chemistry 1 | Professional Development | Chemistry 1 | Professional Development |
| 10:00 | Biology 1 | Biology 1 | Biology 1 |
| 11:00 | Data Science 1 | Data Science 1 | Seminar | Data Science 1 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Basics of  Coding | Research  Project | Basics of Coding | Research  Project |
| 2:30 |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 5** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 2 | Chemistry 2 | Professional Development | Chemistry 2 | Professional Development |
| 10:00 | Biology 2 | Biology 2 | Biology 2 |
| 11:00 | Data Science 2 | Data Science 2 | Seminar | Data Science 2 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Basics of  Coding | Research  Project | Basics of Coding | Research  Project |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 6** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 2 | Chemistry 2 | Professional Development | Chemistry 2 | Professional Development |
| 10:00 | Biology 2 | Biology 2 | Biology 2 |
| 11:00 | Data Science 2 | Data Science 2 | Seminar | Data Science 2 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Virtual Reality  Neuroanatomy | Research  Project | Virtual Reality Neuroanatomy | Research  Project |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 7** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 2 | Chemistry 2 | Professional Development | Chemistry 2 | Professional Development |
| 10:00 | Biology 2 | Biology 2 | Biology 2 |
| 11:00 | Data Science 2 | Data Science 2 | Seminar | Data Science 2 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Virtual Reality  Neuroanatomy | Research  Project | Virtual Reality Neuroanatomy | Research  Project |
| 4:00 | **Study Period/Tutoring/Homework** | | | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |
| **Wk 8** | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| 8:30 | **Check-In** | **Check-In** | **Check-In** | **Check-In** | **Check-In** |
| 9:00 | Chemistry 2 | Chemistry 2 | Professional Development | Chemistry 2 | Professional Development |
| 10:00 | Biology 2 | Biology 2 | Biology 2 |
| 11:00 | Data Science 2 | Data Science 2 | Seminar | Data Science 2 | Seminar |
| 12:00 | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1:00 | Research  Project | Mock Internal Review Board | Research  Project | CPR Training & Certification | **Closing Session: Oral Presentations** |
| 4:00 | **Study Period/Tutoring/Homework** | | |
| 5:00 | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** | **Dismissal** |
|  | | | | | |

Courses will utilize a **Flipped-Classroom Framework** using recorded lectures from Wondrium™ (The Great Courses): <https://www.wondrium.com/redeem/customer/accountlogin>

**Incoming Freshmen:**

Chemistry 1: Chemistry

Chemistry 2: Understanding the Period Table

Biology 1: Biology – The Science of Life

Biology 2: Understanding the Human Body – An Introduction to Anatomy and Physiology

Data Science 1: Big Data – How Data Analytics Is Transforming the World

Data Science 2: Meaning from Data – Statistics Made Clear

**Rising Sophomores:**

Chemistry 1: Chemistry

Chemistry 2: Foundations of Organic Chemistry

Biology 1: Biochemistry and Molecular Biology – How Life Works

Biology 2: Understanding Disorders of the Brain

Data Science 1: Big Data – How Data Analytics Is Transforming the World

Data Science 2: Meaning from Data – Statistics Made Clear

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| **Activity** | **Number**  **of**  **Sessions** | **Session**  **Length**  **(Hours)** | **Total**  **Time**  **(Hours)** | **Activity Leader** |
| **Chemistry 1** | 11 | 1 | 11 | Farr Niere, PhD |
| **Chemistry 2** | 12 | 1 | 12 | Bishnu Bastakoti, PhD |
| **Biology 1** | 11 | 1 | 11 | Reggie Cannady, PhD |
| **Biology 2** | 12 | 1 | 12 | Ashley Sanderlin, PhD |
| **Data Science 1** | 11 | 1 | 11 | GTA - Michelle Farrell, MAT |
| **Data Science 2** | 12 | 1 | 12 | GTA - Arielle King, MAT |
| **Professional Development** | 16 | 2 | 32 | NoireSTEM LLC |
| **Seminars** | 16 | 1 | 16 | Simone Smith, PhD |
| **Research Projects** | 22 | 3 | 66 | Simone Smith, PhD |
| **Responsible Conduct of Research** | 1 | 3 | 3 | GTA – Ashlie Thomas, BS |
| **Human Subjects Certification** | 1 | 3 | 3 | Yudan Wang, PhD |
| **Basics of Qualitative Research** | 4 | 3 | 12 | NoireSTEM LLC |
| **Basics of Coding** | 4 | 3 | 12 | GTA – Yang (Henry) Liu, MS |
| **Virtual Reality Neuroanatomy** | 4 | 3 | 12 | GTA - Catherine Cedeno, BS |
| **Mock Internal Review Board** | 1 | 3 | 3 | Yudan Wang, PhD |
| **CPR Training & Certification** | 1 | 4 | 4 | GTA – Ashlie Thomas, BS |
| **Study Period, Tutoring**  **and/or Homework** | 38 | 1 | 38 | Graduate Teaching  Assistants (GTAs) |
| **Opening Session**  **Team Building** | 2 | 3 | 6 | Raymond Samuel, MD, PhD |
| **Closing Session**  **Oral & Poster**  **Presentations** | 1 | 4 | 4 | Raymond Samuel, MD, PhD |
| **Program Evaluation** | 2 |  |  | Strategic Evaluation Inc. |
| **GRAND TOTALS** | 150 |  | 250 |  |

Potential Seminar Speakers

|  |  |  |  |
| --- | --- | --- | --- |
| Wk | Name | Affiliation | Topic |
| 1 | Goldie Smith Byrd, PhD | Wake Forest University | ADRD in African Americans |
| 1 | Travonia Brown-Hughes, PhD | Hampton University | Memory And Aging Project |
| 2 | Patrick Martin, PhD | NC A&T COAACH | NC Brain Registry |
| 2 | Janet Branchaw, PhD | University of Wisconsin. - Madison | Entering Mentoring – Principles of Effective Research Mentoring |
| 3 | Aarti Sarval, MD | Wake Forest Medical Center | Hemorrhagic and Ischemic Strokes |
| 3 | Amy Edmunds, MS | YoungStroke, Inc | Stroke in Young Adults |
| 4 | Leon Herndon, Jr. MD  Pratap Challa, MD | Duke University | Glaucoma & Corneal Tissue Donation |
| 4 | Dorota Skowronska-Krawczyk, PhD | University of California - Irvine | Eye Diseases & Glaucoma  UC-HBCU Initiative |
| 5 | Giselle Corbie, MD | UNC Chapel Hill | Community Engagement |
| 5 | Barbara Israel, PhD | University of Michigan – Ann Arbor | Community-based Participatory Research |
| 6 | Bruce Tromberg, PhD | NIH NIBIB Director | Point of Care Diagnostics |
| 6 | Selwyn Vickers, MD | University of Alabama - Birmingham | Academic Medicine Careers: Physician Scientist |
| 7 | Herman Taylor, MD | Morehouse School of Medicine | The Jackson Heart Study |
| 7 | Ayotunde Dokun, MD, PhD | University of Iowa | Peripheral Vascular Diseases |
| 8 | Millie Worku, PhD | NC A&T | NC A&T Office of Undergraduate Research |
| 8 | Erika Barr, PhD | NIH | NIH Summer Internship Program and Post Bacc Program |
| 8 | Darryl Murray, PhD | NIH | NIH Undergraduate Scholarship Program |
| 9 | Catherine Boothroyd, PhD | Weil Cornell Medicine: Tri-Institutional MD-PhD Program | Pathway to the Laboratory Summer Program |
| 9 | Kola Okuyemi, MD, MPH | University of Utah | REACH-U2 Summer Program |
| 10 | Joanne Levy, MBA, MPC | University of Pennsylvania | Leonard Davis Institute of Health Economics – Summer Undergraduate Minority Research (SUMR) Program |
| 10 | David Siegfried, MBA | Institute for Broadening Participation | Pathwaysto science.org |
| 11 | Ebony Hearn | Massachusetts Institute of Technology and Broad Institute | MIT Summer Research Program (MSRP) |