

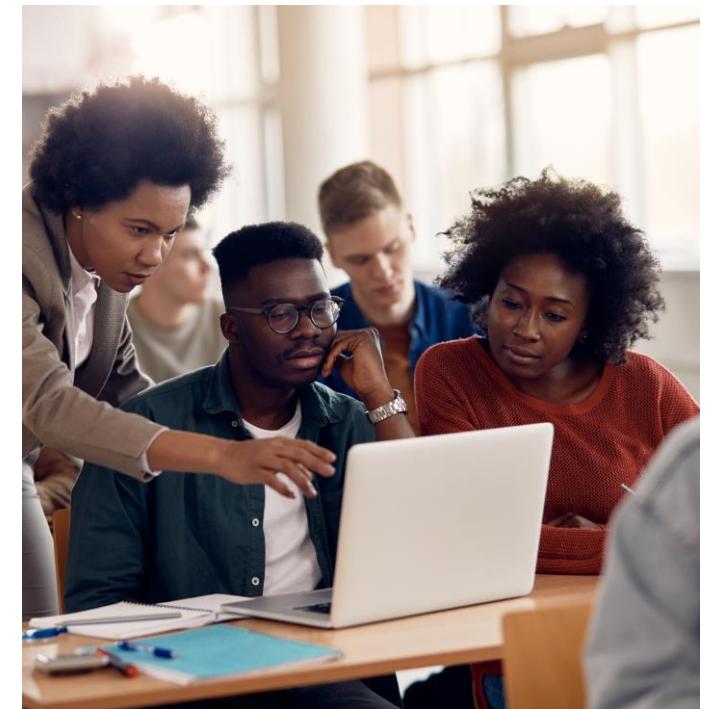


Designing Experiential Learning with a focus on JTF Competencies: The Clinical Research Sciences Program Internship at NCCU

Tracie Locklear, PhD
Research Assistant Professor
December 10, 2025

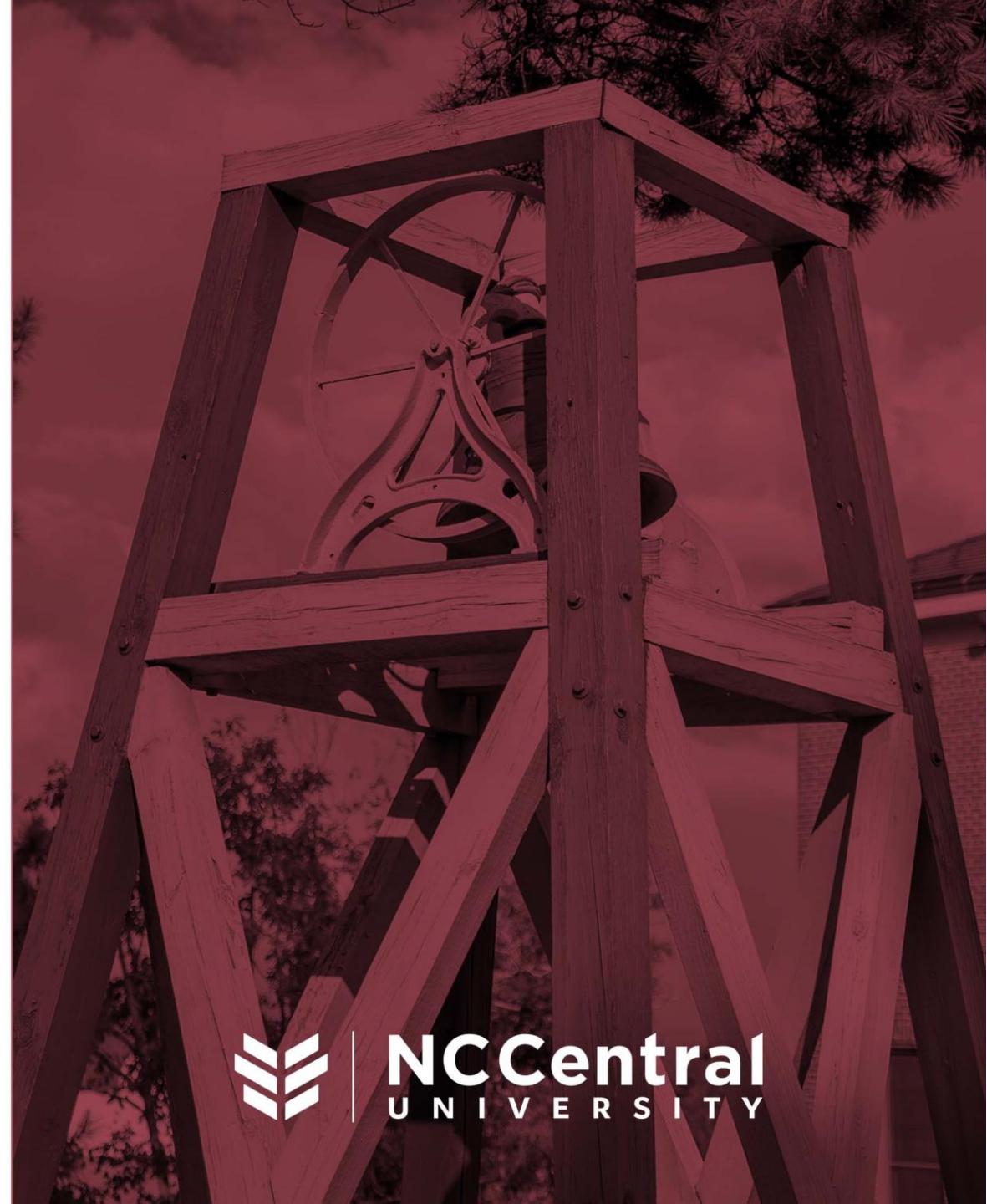
About Our Program

- The Clinical Research Sciences Program (CRSP) was established in the Fall of 2018 and launched in Spring 2020
- Asynchronous/online, hybrid, and face-to-face, to support various learning needs and meet the challenges of a busy life.
- Three unique offerings: (1) a Bachelor of Science in Clinical Research; (2) a minor; and (3) a post-baccalaureate certificate in Clinical Research.
- Instructors are clinical research professionals from various backgrounds with a combined 25 years of experience.



Bachelor of Science in Clinical Research Degree

Course Title	Credits
Principles of Clinical Research	3
Pharmaceutical Data Science/Biostatistics	3
Clinical Biostatistics	3
Clinical Trial Management I	3
Clinical Trial Management II	3
Clinical Biochemistry	3
Pharmacology	3
Regulatory Sciences	3
Pathophysiology	3
Pharm Tech Writing	3
Medical Bioethics	3
Pharmacovigilance	3
Advanced Data Management	3
Medical Terminology (online)	2
Presentation Skills	1
Literature Review	1
Interpersonal Skills	1
Clinical Trial Protocol Design	1
BioBanking & Interpreting Lab Data	1
Good Clinical Practice	1
Clinical Research Internship	12



NCCentral
UNIVERSITY

Aligning Objectives

- Align objectives with JTF competencies
- Scaffold across program curriculum
 - Freshman-Sophomore (Fundamental)
 - Junior-Senior (Skilled)



Domain 2: Ethical and Participant Safety Considerations

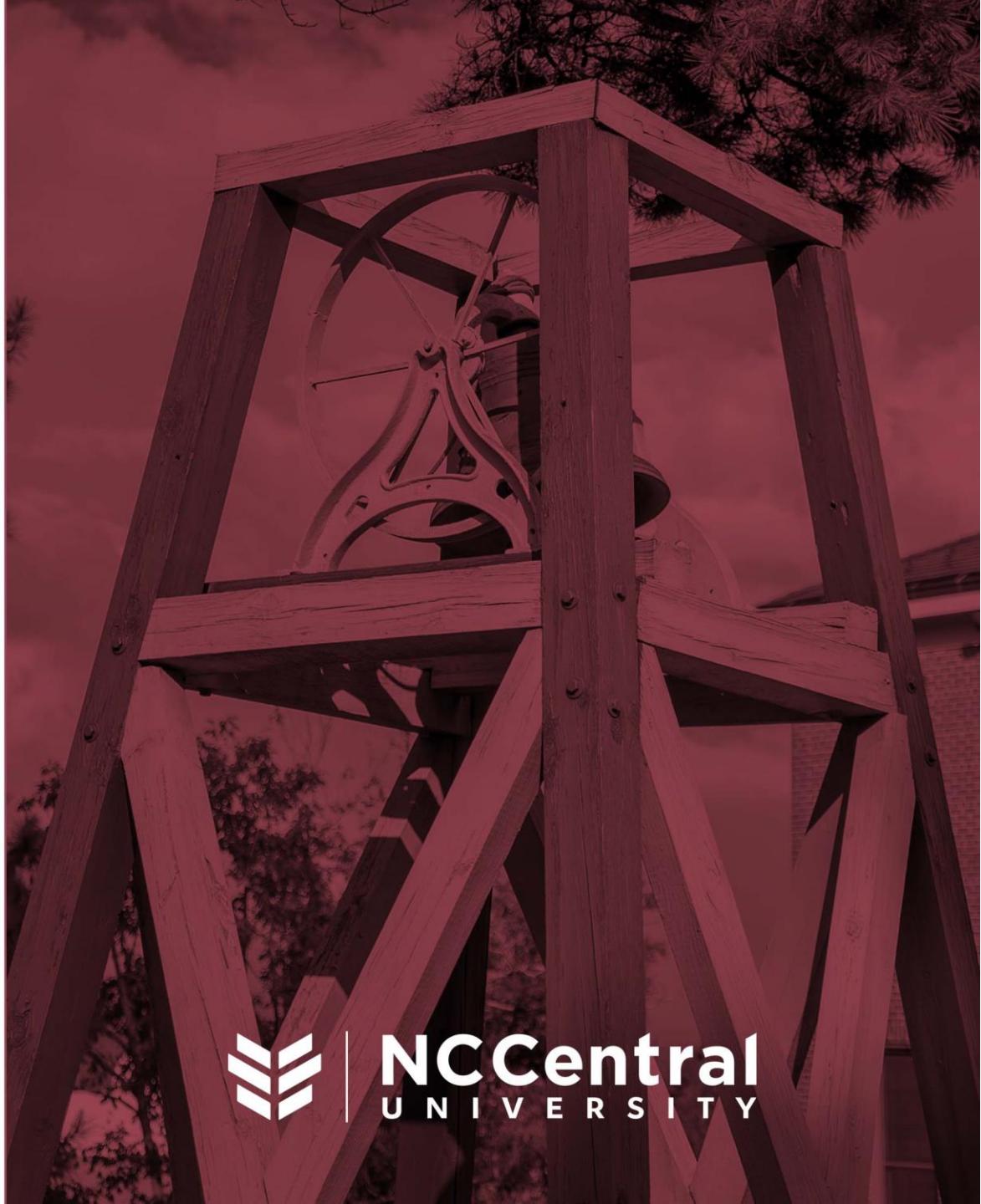
Fundamental: Recognize difference between clinical equipoise and therapeutic misconception

Skilled: Explain rationale and demonstrate how these concepts impact patient understanding

Setting and Evaluating Objectives

We focus on how students learn BEST!

- Students come with prior knowledge and life experiences
- Create opportunities for students to display personal strengths
 - **8 Intelligences** (linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalist)
 - A variety of assessments improve outcome quality (e.g., video presentation vs. written essay/poem)



NCCentral
UNIVERSITY

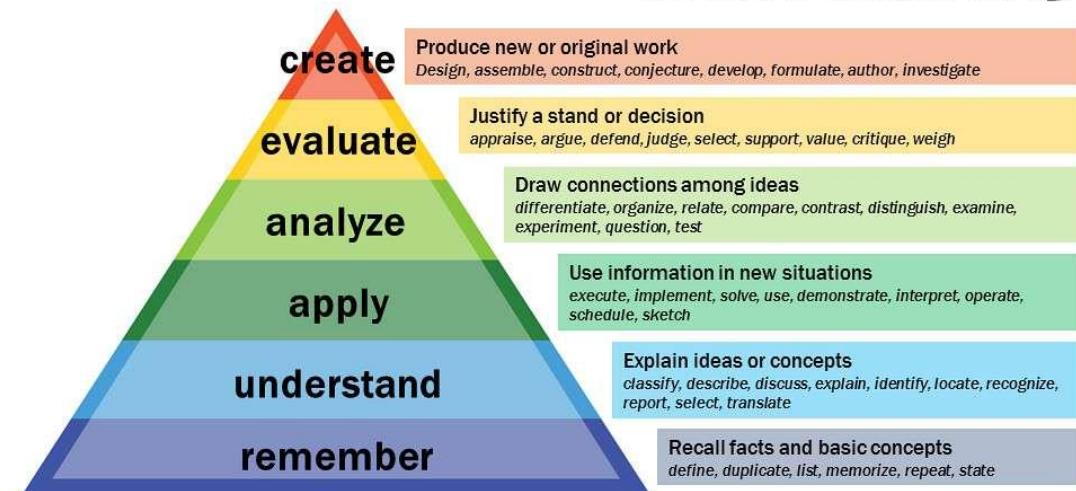
Using A Trusted Educational Framework

The Bloom's Taxonomy

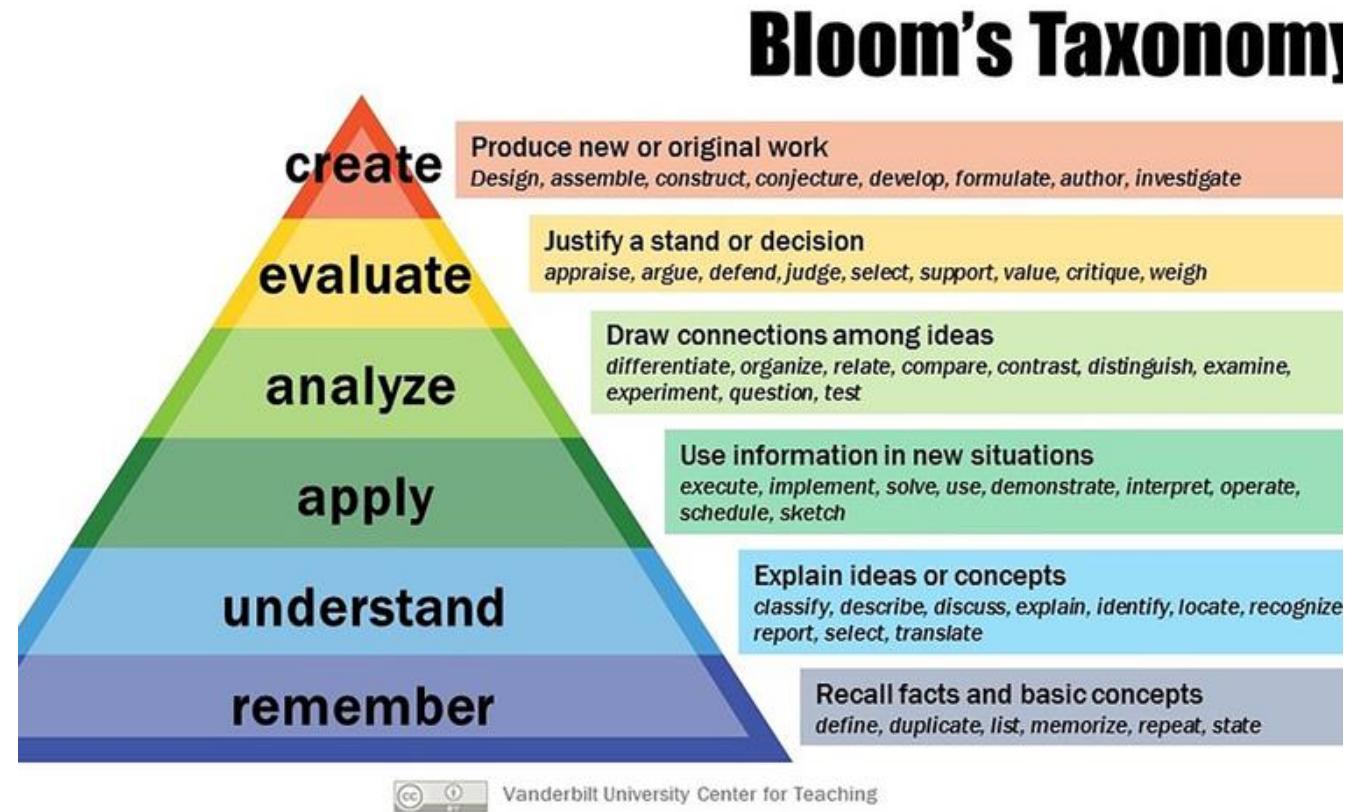
Tiered framework for developing learning objectives

Higher-order learning objectives and assessment to evaluate knowledge, as students develop

Bloom's Taxonomy



Vanderbilt University Center for Teaching



Aligning Competencies with Learning Objectives

Strategically aligning the fundamental and skilled level competencies with Bloom's Taxonomy

Internship Course Details

- Students enroll in the CRSB 4000 course for academic credit (12 credits)
- 15 weeks
- Unpaid
- Part-time (minimum of 12 hours/week and max. 30 hours/week)
- Can be on-site, fully remote, or hybrid
- Students are matched based on interests and availability
- Requires background check, drug screen, interview





Learning Objectives for Interns

- **APPLY** Good Clinical Practices in the conduct of clinical research
- **[Understand]** Execute the role/responsibility of an entry-level clinical research professional within the clinical research team
- **APPLY** professionalism and interpersonal skills to ensure success in clinical and scientific workplaces
- **[ANALYZE]** Demonstrate qualitative or quantitative data collection and analysis research skills
- **[EVALUATE]** Apply literature review skills to develop and share new knowledge in clinical and scientific research workplace
- **[CREATE]** Execute well-researched presentations with confidence



Examples of Internship Activities

- Creating newsletters, social media posts, educational materials for research studies
- Conducting literature reviews and summaries on a specific research topic
- Assist with document preparation, review, and IRB/IEB submissions
- Attend meetings and take meeting notes
- Observe/practice patient recruitment and follow up data collection
- Building databases (e.g., RedCap)
- Data management and analysis

Community Engagement Objectives

- Participate in community outreach to improve education on clinical research/clinical trial participation in underrepresented communities
- Utilizing RCMI infrastructure to support community engagement activities (e.g., food, give-aways, community connections, etc.)
- Assist with community outreach initiatives, provide clinical research education, Q/A, mobile unit tour, and providing free health assessments



Evaluating Knowledge

- **APPLY** Good Clinical Practices in the conduct of clinical research 
- **UNDERSTAND** and describe the roles of various clinical research professionals within the clinical research team 
- **APPLY** professionalism and interpersonal skills to ensure success in clinical and scientific workplaces 
- **[ANALYZE]** Build skillsets in quantitative research 
- **[EVALUATE]** Apply literature review skills to develop and share new knowledge in clinical and scientific research workplace 
- **[CREATE]** Execute well-researched presentations with confidence 

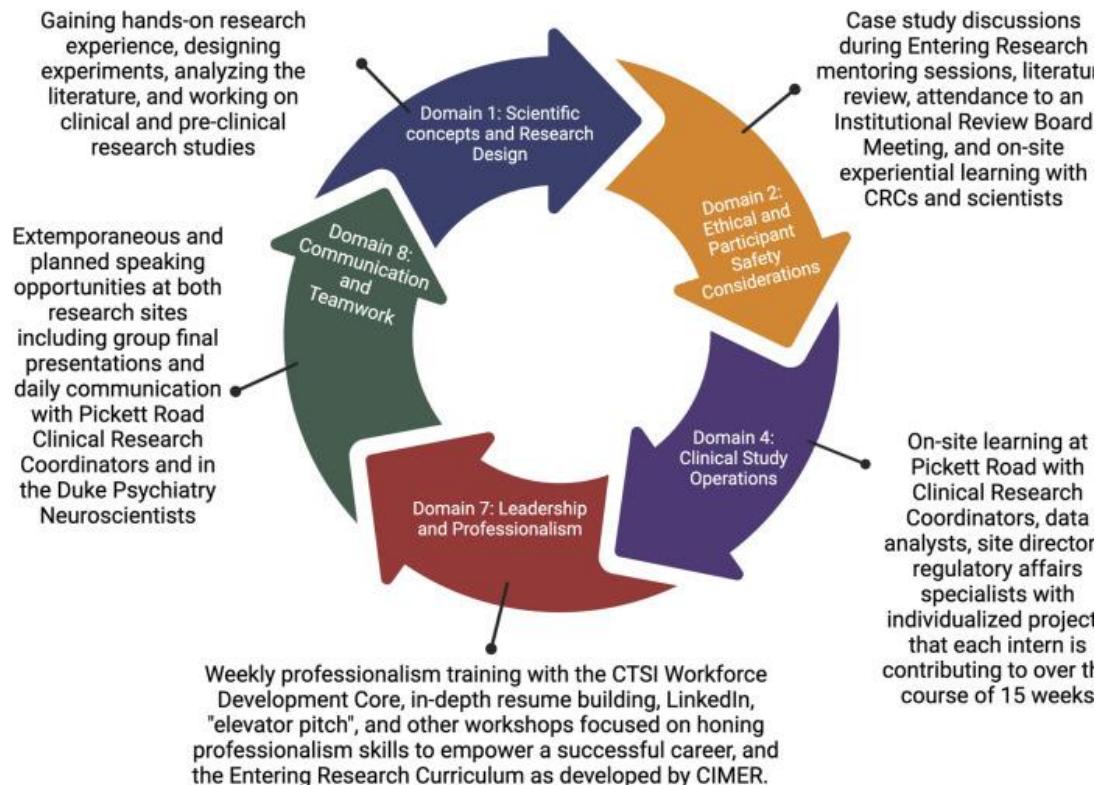
- Assessing adherence to study protocol and regulations via preceptor feedback

- Assessing journal and discussion board entries

- Assessing dress code and attendance policy adherence; verbal and written communication adherence

- Assess data collection and interpretation skills via visual presentation

Publications



Front Pharmacol. 2023 Dec 6:14:1294535. doi: 10.3389/fphar.2023.1294535. eCollection 2023.

A novel cross-institutional college internship program to train future diverse leaders in clinical research with data-driven approaches to assess impact

Julia Derk ^{1 2 3}, Kafui Dzirasa ^{1 2 3 4}, Tracie Locklear ^{2 5}

Next Steps: Assessing Student Feedback

- 9 students have gone through the internship to date
- IRB protocol in place to collect pre and post internship feedback
 - Self-efficacy
 - Feelings of belonging
 - Access to research opportunities
 - Mentor-Mentee relationship
 - Future education and career goals



NCCentral
UNIVERSITY

Discover what's Central to you.



Where Purpose Takes Flight

For more information please contact:

Tracie Locklear, PhD
Research Assistant Professor
Lead, Clinical Research Sciences
tlockl12@nccu.edu
919.530.6251

