

# INDV 460: MCNAIR RESEARCH INTERNSHIP II ♦ 13 May-21 July 2017\*

\* dates under review and will be confirmed in SP2017

**Credit Hours:** 4

**Class Days/Times & Locations:** Varied (see schedule below)

## **Faculty Instructors:**

Dr. John Quinn, Research Process

Dr. Heather Cianciola, Professional Writing

Ms. Lydia Whitacre, GRE Preparation-Verbal

Dr. Bill Miller III, GRE Preparation-Quantitative

## **Internship Description:**

The McNair Research Internship II is designed to advance your understanding and experiential knowledge and practice of research from the base knowledge acquired in McNair Research Internship I. To ensure successful completion of the Internship, you will

- attend weekly seminars on Research Process and Professional Writing,
- participate in three mandatory time-on-task meetings with the McNair Research Coordinator based on monthly progress reports from faculty research supervisors,
- attend seminars to help you prepare for the Graduate Record Examination (GRE) through content and strategy review of the Verbal, Quantitative, and Analytic Writing sections of the test, and
- develop a graduate admissions essay for use in applying for graduate school during your senior year.

The completed research project and graduate admissions preparation activities will subsequently afford you greater confidence as well as necessary skills and experiences for successfully pursuing future research activities, admission to graduate school, and achievement of a Ph.D. degree.

**Restrictions:** Students must have successfully completed INDV 400: Graduate School Preparation with a grade of "C" or higher, have junior level status or higher, and be a McNair Scholar in good standing at Truman State University.

## **GENERAL POLICIES**

### **Attendance:**

Regular attendance and the timely completion of homework assignments, as well as seminar participation and participation in group discussions and individual meetings, are all critical elements to the success of every student in the course. Be on time and prepared for all workshops and meetings with your research supervisor, and consult the Blackboard website and your email daily for important updates and announcements.

### **Communication and Late Work:**

Please respond promptly to all email communication, even if you send something like "received with thanks." Please use greetings and signatures on all emails unless a professor indicates that you should do otherwise. Assume that faculty members are typically available to answer questions or address concerns between the hours of 8a-5p, Monday through Friday. Allow at least 24 hours for a response.

Each instructor will tell you the best way to contact them. Please use that method of communicating consistently. Because Blackboard is linked to Truman accounts, please use your Truman email address for all correspondence.

No late work will be accepted in any workshop unless you make previous arrangements with the appropriate instructor. If time is short or something is urgent (e.g. you're sitting in the ER), call the McNair Office (x7735) and leave a message with Ryan. If you have a health or safety emergency after 5p, call 911 or Dr. C (in that order!).

### **Data File Management:**

Nothing on a computer is really saved unless it's saved in at least two places. Save your work on your computer as well as your Truman network drive, your McNair jump drive, and something like Dropbox or Google Drive.

### **Academic Honesty and Integrity:**

At the core of every community of scholars is the shared belief and knowledge that the intellectual work, accomplishments and products of every person should be respected, valued, and acknowledged. For this reason, we must all—students and faculty alike—practice habits of academic integrity. Students should "complete all of their coursework and assignments using their [own] original words and ideas and will properly cite the words and ideas of others" for written assignments and tests \*\*, in accordance with the university's *Student Conduct Code* (8.050.1). When in doubt about how to properly cite quotations and references, please seek clarification, advice and/or guidance from your instructor or Research Supervisor. Definitions of academic dishonesty are formally stated at the official TSU webpage at: <http://www.truman.edu/conduct/>. These behaviors include: cheating, fabrication, facilitation of academic dishonesty, plagiarism and sabotage, which are all serious offenses that will result in serious consequences for one's academic career. Such acts are fundamentally contrary to Truman's institutional values. \*\*Truman State University (2009) *Resources for Academic Integrity*, The Center for Teaching and Learning.

### **Students with Disabilities:**

If you have disabilities for which you may need special accommodations, please contact the seminar instructors and the campus Disability Services office (ext. 4478) as soon as possible. For additional information please visit the Disabilities Services website: <http://disabilityservices.truman.edu>.

### **Required Course Texts (provided for you by the McNair Program)**

- Booth, W. C., Colomb, G. G., & Williams, J. M. (2008). *The Craft of Research* (3rd edition). Chicago: University of Chicago Press.
- Cambridge Educational Services (2011). *Victory for the GRE Test* (9th edition).
- Educational Testing Service (2010). *The Official Guide to the GRE revised General Test*. New York: McGraw Hill.
- Kaplan (2011). *GRE Exam Vocabulary in a Box*. Kaplan Publishing.

## INTERNSHIP WORKSHOPS

### Research Process

Dr. John Quinn, McNair Research Coordinator  
Email: jquinn@truman.edu  
Phone: 660-785-4578/ 660-785-4779 (Adair)  
Office: Adair Building Basement

#### Overview of the Course:

Consistent with the liberal arts tradition, and in accordance with our university's standards for intellectual development and academic growth for undergraduate scholars, the Ronald E. McNair Research Internship II *Research Process Workshops* seek to advance your understanding and experiential knowledge of research methods across an array of academic disciplines and through *modes of inquiry* appropriate to their fields of specialization. However, we will present a generic, interdisciplinary research template from which you can fashion and tailor your research to your discipline's norms. When in doubt, however, about whether to follow our generic advice, or the specific advice of your research supervisor, follow the advice of your research supervisor. However, do communicate that we are targeting an audience of intelligent students and faculty across disciplines as our default. Nonetheless, this is not one-size-fits-all, even if it starts with a general template. Also, this approach allows our scholars to understand how research is done across discipline as we see our fellow McNair scholars work through their processes.

#### Research Process Objectives

By the end of the internship, you will have

1. improved your ability to review scholarly literature associated with your topic and discipline,
2. improved your ability to develop a reasonable working knowledge and understanding of a specific topic of your choice within it,
3. sought out and recognized problems in current or past research,
4. thought creatively to generate and explore new questions arising from those problems,
5. carried out the steps necessary to investigate your proposed thesis / hypothesis or research question(s) in accordance with an approved research design,
6. analyzed the findings,
7. effectively communicated the rationale for YOUR research and findings using *PowerPoint* presentation software,
8. presented these findings in a public forum, and
9. gain practical experience in the step-by-step process of carrying out a research project to its conclusion.

The finished project will subsequently afford you greater confidence in future research explorations and support your preparation for graduate studies – with the pursuit and attainment of a doctorate degree as the ultimate goal. Also, students who successfully complete the INDV 460 process, along with some REU scholars, will be

invited to submit their completed research paper to *The McNair Scholarly Review* for publication of their undergraduate research experience. This paper will then undergo a review process similar to the one needed for peer reviewed publications. Acceptance is common, but not guaranteed.

### **Types of Assignments:**

**Attendance** In this workshop, your attendance grades will be based on workshop attendance (60%) and active participation (40%). Participation includes giving practice PowerPoint presentations in class, along with Q and A arising from these, in order to demonstrate progress and highlight how different scholars approach the research process. Also, asking and answering questions during workshops will be included in this calculation.

**Quizzes** There will be online quizzes associated with readings from *The Craft of Research*. Each quiz will be on chapters assigned for the week, and each quiz will have ten questions. These quizzes will be on line in blackboard **and they open the day after the chapter is assigned, and they will remain open for one week** (or until the last day of the last week of the INDV 460 workshop, whichever is first). When you begin the quiz, be ready, as it will only be open for 10 minutes and you only get one shot at it. Also, the questions will be sequential (with no going backwards) and you will only be able to see one at a time. The final grade for the quizzes will be based upon an average of all quiz scores. So if you have an average of 80%, you will get 8 points, if 95% right, 9.5. [I will also round down and up so scores will be integers or half integers.] Missed quizzes cannot be made up (since the windows for taking them are so wide!). If you experience difficulties, let me know. Also, these tend to work better on computers than on phones or iPads.

**Written work** Please see the calendar for Blackboard submission guidelines. All work will be submitted on Blackboard. Use your discipline's format (APA, MLA, Chicago, etc.) for page setup, citations, and a bibliography. When in doubt, refer to the Purdue Owl webpage: <https://owl.english.purdue.edu/owl/>. This is a strong expectation, and your grade will be impacted if you follow your citation style poorly or unevenly.

**Goals/reflection on goals** Each scholar will be asked to write out a set of goals and reflections for the week. This should reflect goals need to accomplish for the Research Process workshop and the goals for the week in how to make progress in the research project itself as well as any appointments or tasks needed to be completed for any aspects of the INDV 460 process. Think of this as a weekly INDV 460 timeline with reflection on how well the goals were met or achieved (so no reflections for week 1).

The goals written down should be ones which can be shown to have been completed with specific evidence. So do not write, "work on literature review"; rather write something like "read two articles recently found, extract the key ideas, and integrate them into the current literature review in the form of one or two paragraphs." Or "find two or three additional articles looking at . . . for my project." Or "meet with Dr. X and discuss X" or "Work on literature review and rewrite first two paragraphs," or "rewrite literature review for 2 hours." Also, please include any scheduled appointments or scheduled due assignments. This will help you navigate your many competing tasks during the summer.

Then starting the second week, include a reflection upon the prior week's goals, what percentage were completed, if too much was scheduled or too little, or some analysis of how well your goals were met. Show that you understand what you set out to do, and how well you did in light of this. These are due by 11a on blackboard the day of Research Process workshops.

**Power Point Presentations:** You will give a formal presentation of your research, beyond the one which counts for the participation grade. This presentation is integral to the INDV 460 experience. The presentation will introduce your original topic, explain the research problem, review relevant literature on the topic, report the findings of your project, and discuss implications. It should run approximately 12-15 minutes in length in order to allow for audience questions and discussion (20 minutes total with questions). As mentioned above, we will also have some preliminary PowerPoint presentation leading up to the one with Dr. James Cianciola [in addition to public presentation on July 27<sup>th</sup>].

<b>Research Process Assignments</b>	<b>Points</b>
Goals/Reflection on Goals	<b>20</b>
Research Paper Rough Drafts (3 at 20 pts each)	<b>60</b>
Presentation Practice Sessions with Dr. James Cianciola (2 at 10 pts each)	<b>20</b>
Quizzes on <i>The Craft of Research</i>	<b>10</b>
Attendance/Participation (including 3 Time On Task Meetings at 10 pts. each)	<b>40</b>
<b>Total</b>	<b>150</b>

### **Professional Writing**

Dr. Heather Cianciola, McNair Project Director

Email: heatherc@truman.edu

Phone: 660-234-5339 (call/text M-F, 8a-5p only) and 660-785-4022 (McNair Office)

Office: Adair Building 300

#### **Description/Objectives:**

The purpose of this workshop is to enable you (1) to prepare for the Graduate Record Exam (GRE) Analytical Writing section through an improved or consistent score in regular practice throughout the internship and (2) to complete at least one full Graduate Admissions Essay (GAE) draft in preparation for the 2016-2017 graduate school application season.

All other course policies that apply to this workshop may be found under General Policies on pgs. 1-2, above.

<b>Professional Writing Assignments</b>	<b>Points</b>
GRE Intro & Body Paragraph Assignments	<b>30</b>
Midpoint Assessment	<b>25</b>
Graduate Admissions Essay Drafts	<b>25</b>
Attendance/Participation	<b>20</b>
<b>Total</b>	<b>100</b>

### **GRE Preparation**

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Ms. Lydia Whitacre, English & Linguistics: GRE Preparation – Verbal  
Email: lwhitacre@truman.edu  
Phone: 660-785-4401  
Office : TBA

Dr. Bill Miller, Chemistry: GRE Preparation – Quantitative  
Email: brmiller@truman.edu  
Phone: 660-785-4622  
Office: Magruder Hall 3128

### **Description**

The GRE component of the INDV 460 internship helps students prepare for the Graduate Record Examination through content and strategy review of the Verbal and Quantitative parts of the test. We will first have a computer-based pre-test to determine your basic abilities for each aspect of the test as well as for setting goals for each student. Students are required to discuss personal strengths and weaknesses as well as goals for improvement in the GRE scores during the first time on task meeting with Dr. Quinn. During the workshop for the GRE, we will review several aspects of Verbal Reasoning: Reading Comprehension, Text Completion, and Sentence Equivalence, as well as several aspects of Quantitative Reasoning: Discrete Quantitative, Numeric Entry, Comparisons, and Data Interpretation. Then we will have a post-test to assess improvements and determine likely GRE scores. Homework is also a key component of the workshop and students have assigned homework for each class. It will be based upon reviews of basics in verbal and quantitative materials. A complete Math review is part of the homework scheme as are basic vocabulary and reading reviews. The elements of the GRE which deal with the writing aspects of the GRE will be discussed in the professional writing workshop.

### **Learning Philosophy:**

The material discussed in this course is designed to forward your long-term success and academic goals through mastering the GRE. The topics included may not align with your particular academic interests, but improving your GRE score through the study of these topics is to your best benefit. Along with collegiate GPA, your GRE score is the 2<sup>nd</sup> most important criteria when determining acceptance and funding packages for graduate school, which can make the difference between attending your dream school instead of a fallback school. Therefore, engagement and participation in this workshop is critical to your success as you prepare yourself for graduate school.

### **Learning Objectives**

By the end of the Internship, you will have:

1. Taken two computer based GRE tests (a pre- and posttest).
2. Completed a Math review (Arithmetic, Algebra, Geometry, and Data Analysis as well as all the homework associated with it).
3. Completed a Verbal Comprehension Review and the homework associated with it.
4. Become familiar with the basic format and aspects of the GRE Verbal and Quantitative Analysis portions of the exam.
5. Become familiar with good strategies for test taking for the GRE

6. Become familiar with the reading completion and reading comprehension aspects of the GRE and basic strategies for improving the chances of getting more questions right on the test
7. Become familiar with the quantitative aspects of the GRE and basic strategies for improving the chances of getting more questions right on the test
8. Demonstrated some improvement in their Post-test scores over their Pre-test scores or maintained good scores.
9. Worked on reading/work assignments without distraction for 4 hours.

### **Management of Homework:**

Most homework due is posted on the syllabus. However, homework may also be assigned in class. It is the responsibility of students to write the assignment down at the time. If you miss class, it is your responsibility to find out what was covered, have your assigned homework turned in, and find out if new homework is due.

### **Assessment:**

Student performance will be evaluated according to the quality and sincerity of their efforts to engage with the tasks and material covered in the seminar or tutorial meetings as well as required consultation appointments with instructors. Due dates for assignments and scheduled appointments should be respected, so that instructors can provide you with helpful feedback in a timely fashion. If unforeseen, extenuating circumstances of a legitimate nature prevent timely submission of an assignment or keeping of an appointment, it is the responsibility of the student to contact the appropriate instructor to request guidance and make alternative arrangements whenever reasonably possible. Although everyone deserves a second chance after a mistake, as well as constructive support for developing strategies for improvement, the instructors nonetheless reserve the right to set limits and penalties for irresponsible behavior on the part of any student who repeatedly demonstrates poor planning or time mismanagement.

Your grade in INDV 460 comes from several sources, and this GRE Prep workshop represents 20% of your total INDV 460 grade. Assessment in this component of the INDV 460 is based upon several criteria: class participation (15%), attendance (15%), homework completion (40%) and either improvement or sustained excellence in the two tests (quantitative and verbal reasoning (15% each)). To score the test, those who maintained average scores will get a C, and those who maintained above average will get a B, and those who maintained high scores will get an A). Loss of scores will lower these grades depending on starting position. Strong improvements in scores will be either a B or an A depending on how strong the improvements are and the starting position. For the homework, you should show that you did the homework, [list the answers, and show the correct answer when it was wrong, and then explain briefly why it was wrong (if you can determine it, e.g. what type of question was being asked, what equation was needed/ type of math problem, et cetera)).

<b>GRE Preparation Assignments</b>	<b>Points</b>
Class Participation	<b>30</b>
Attendance	<b>30</b>
Homework Completion	<b>80</b>
Improvement or Excellence in Verbal	<b>30</b>
Improvement or Excellence in Quantitative	<b>30</b>
<b>Total</b>	<b>200</b>

**Types of Assignments:**

*Homework:* As discussed above, homework should be submitted the day of the assignment, and it will be collected after a review of it. You must show that you did the homework, [list the numbers, and put your answer, and then show that it was corrected. These will be self-graded and scored. For each answer that was incorrect, please show the correct answer, and a brief sentence of why it was wrong (if you can determine why).

**Seminar Participation, Discussion and Truman Values:**

Truman is a public institution and we must respect the rich diversity of viewpoints and beliefs among our campus community members. This Internship will provide an excellent opportunity for students to develop listening and communication skills within a moderated, group discussion setting. This means that students should take turns fairly, listen actively and politely to others when it is their turn to speak, and acknowledge the rights of other students to their opinions as you expect them to respect your rights to hold your own personal viewpoints. In short, we must learn to respectfully agree to disagree. For the GRE portion, sometimes students will be asked to go to the board, or work in groups or help other students. This should be seen as an exercise in team work.

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## OTHER INTERNSHIP ASSIGNMENTS

Research Supervisor Reports and Approval Form	Points
Research Supervisor Progress Reports (3 at 50 pts. each)	<b>150</b>
Research Supervisor Approval of Final Manuscript	<b>150</b>
<b>Total</b>	<b>300</b>

Final Portfolio	Points
Research Paper Final Draft	<b>75</b>
Grad Admissions Essay Final Draft	<b>25</b>
Final PowerPoint Presentation	<b>25</b>
Graduate Institutions List Final Draft	<b>25</b>
<b>Oral Presentation</b>	<b>100</b>
<b>Total</b>	<b>250</b>
<b>COURSE TOTAL</b>	<b>1000</b>

## Sample Course Schedule

<b>Course Schedule</b>	This schedule may be changed at the discretion of the instructors and with due notice to you. Unless otherwise noted, all assignments are due on the day they are listed.	
<b>Week 1</b>		



Sat May 13	By appointment	Check-in with Residential Life for on-campus housing
Sun May 14	4-6p	Internship Overview & Dinner, Adair House
Mon May 15	9-11a	Research Process – Dr. Quinn, Library
	11:15a-12p	Meeting with Janet, TBA
	12-1p	Break
	1-3p	Library Hours
	3-5p	Mentor Meetings Writing Workshop

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