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INSTRUCTOR: DR. JEFF BUECHNER

**CRITICAL THINKING
RUTGERS UNIVERSITY**

SYLLABUS

TEXT:

Ways of Reasoning: Tools and Methods for Thinking Outside the Box,
Jeff Buechner; University Publishing Solutions, 2008 edition.

Electronic rental (\$39.95) available at: <http://tinyurl.com/a2772j4>

Paperback (\$79.95) available at: <http://tinyurl.com/cfjo63k>

COURSE OBJECTIVE:

Most people are notoriously bad at reasoning. This is not so much a cultural fact of life as it is a biological one. We do not possess an innate ability to engage in effective critical thinking. Critical thinking skills must be learned and cognitive science has taught us that learning them is hard work and requires considerable practice. It easily follows that if you have never received explicit instruction in these skills, you will not be an effective critical thinker. Yet within and outside the university, it is expected that you are able to critically assess arguments effectively and construct well-designed arguments. When and where did you receive instruction in these skills?

Without good reasoning skills, putting together a set of reasons to back up your claims about the world is little more than a shot in the dark. Moreover, we have no reasonable defense against intimidation and propaganda if we can't critically assess patterns of reasoning. Without critical thinking tools the best we can do is fight unreason with unreason. That is a losing proposition. Not knowing what distinguishes good reasons from bad reasons, we have no more reason to believe the propagandists' position than we do our own. In which case, we lose both autonomy and effectiveness as thinkers and become nothing more than imitators of prescribed inferential patterns

without knowing whether the patterns we imitate have real worth or not. In short, we become slaves of the machine.

Worse yet, only 5% of the graduates of Rutgers University know how to determine when someone's reasons for their claims are good or bad, even though Rutgers claims that a graduate will possess the requisite critical and analytical thinking skills. Since assessing goodness of reasons is the most fundamental critical and analytical thinking skill, very few Rutgers graduates possess this most fundamental skill. (Source: A statistical generalization from a database of 14,000 responses over a twenty year time period at Rutgers.) Unless you learn how to determine goodness of reasons from someone who knows how to do it, you will not be able to do it. Being told that you should make sure your claims are supported by your reasons (or by your evidence) is true, but worthless, unless you are also given a tool that you use to show exactly how premises support claims.

The tool for determining whether reasons for claims are good or bad is continuous with scientific method and with establishing the validity of scientific claims. But it is antecedent to scientific method in that scientific method is a corollary of this tool, and this tool is used in assessing claims in any arbitrary subject matter, whether it is a scientific claim about the world, an economic one, a political one, a common sense claim—indeed, any claim about the world at all. It follows that this tool is essential for successfully navigating a university degree, as well as for successfully navigating a profession and a life. But unless you take this course, you will not know how to do it—you will not know how to tell whether reasons for claims are good or bad. More than likely, you—along with 95% of all Rutgers graduates—will hold a false view about how to do it. It is only upon completion of this course that you will know how to do it—you will have a tool that is easy to use, that engages the imagination in a powerful way, and that is effective in arbitrary disciplines.

Can a course in critical thinking help you in becoming an autonomous and effective thinker? Yes, it can help immensely. In this course you will acquire the necessary proficiency to critically assess arguments from a broad range of college disciplines, areas of employment (such as the law) and worldly concerns (such as politics and culture). In this course you will learn how to use your mind (and the power of your imagination) to measure how much information is contained in the premises of an argument in support of its conclusion.

You will learn the requisite vocabulary, principles, concepts and tools needed to become an effective critical thinker. In particular, you will learn the only reliable method for determining the goodness of one's reasons for the claims one makes. You will also see how to use this method to conduct an intelligent literature search and why this method requires the active and creative use of the imagination. You will find that the more ethnically diverse the classroom in which you learn, the smarter you will become.

Learning Goals:

First Learning Goal: You will be able to explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory

in analysis of some specific content, such as historical analysis, social analysis, or philosophical analysis.

Second Learning Goal: You will be able to formulate, evaluate, and communicate conclusions and inferences from qualitative data.

Third Learning goal: You will be able to analyze and synthesize information and ideas from multiple sources to generate new insights.

COURSE REQUIREMENTS (Read** **carefully**):**

You will be graded on the following:

- (i) **EXAMS: three** quizzes, a **mid-term**, and a **final examination**
- (ii) **CRITICAL ASSESSMENTS: five** critical assessments of various arguments
- (iii) **PORTFOLIO: a PORTFOLIO** (i.e., a Word file) consisting of written work, such as solutions to homework problems, questions about material in the text, critical assessments of arguments, solutions to movie and newspaper (current events) problems, and answers to critical thinking, philosophical, and logical puzzles. As you go through the units in the course, you will encounter assignments to put in the PORTFOLIO. The assignments should be put into the PORTFOLIO sequentially—matching the order of the units on the course home page. Make sure that you read the assignment carefully—so that you do everything required.

There are 11 gradable items. Each counts 1/11 of your final grade.

You can purchase the text (Ways of Reasoning: Tools and Methods for Thinking Outside the Box, Jeff Buechner; University Publishing Solutions, 2009 edition) on-line:

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Paperback (\$79.95) available at: <http://tinyurl.com/cfjo63k>

The text (paperback hard copy) will also be available at the Rutgers University Bookstore in the Hayne building.

The PORTFOLIO. You will add entries to your portfolio as you go through the units of the course sequentially. The units are in the boxes which appear on the far left of the course homepage. You are responsible for finding and doing the problems for your portfolio which appear in the units. It is not difficult to find them—they are clearly marked as such. The only way to miss them is to not do a unit. At the end of the semester (or when you have finished the course—which might be well before the official end of the semester on Wednesday, December 20th), submit your PORTFOLIO to

the PORTFOLIO unit on the course homepage. Make sure that you have submitted all of the portfolio entries—double-check by going through each unit and checking for portfolio entries. I will e-mail everyone a list of all of the PORTFOLIO entries two weeks before the end of the semester.

Critical assessment of arguments. You will use the critical thinking tools you learn to critically assess various arguments. Most of the arguments are in the text. Which arguments you will critically assess will appear in the units. You are responsible for finding those arguments, which are clearly marked as such in the individual units. Submit critical assessments of arguments to the units. Which arguments to critically assess you will submit to units and which arguments to critically assess you will add to your log will be clearly marked as such.

IMPORTANT!!!!

Quiz 1: Quiz 1 is due by the end of the second week of classes. You do not have to have any special knowledge to do it, and you will get 100 for completing it. But it must be finished by Friday, January 26th. If you hand in Quiz 1 later than that, you will not get 100 for it—you will be penalized 40 points. Make sure you follow the directions when you do Quiz 1.

SUPER-IMPORTANT—YOU MUST READ THIS!

Blackboard does not allow students to revise their graded work (such as exams). But I do allow students to revise their written work—including exams. If you submit work for a grade, I cannot give it back to you for revision **UNLESS I grade it!!!** So **IF I want you to revise and re-submit your written work, I'll have to give you a temporary grade.**

We will use the following convention for temporary grades: the grade will be '0.'

IF you see you have a grade of '0' on your submitted work, it means I want you to revise and re-submit the work for an actual grade. IT DOES NOT MEAN YOU GET '0' FOR A FINAL GRADE FOR THAT WORK. Once you receive the actual grade, the '0' will vanish.

DO NOT THINK YOU HAVE GOTTEN A PERMANENT '0' FOR YOUR WORK. IT IS ONLY A TEMPORARY EXPEDIENT SO YOU CAN REVISE YOUR WORK AND RE-SUBMIT IT.

I'm harping on this point, because last semester, up until the last day of classes, many students thought that '0' meant a final grade. It means only that you must revise and re-submit your work for an actual grade.

One last point to harp on: YOU ARE RESPONSIBLE FOR RE-SUBMITTING WORK THAT IS CURRENTLY GRADED 0. YOU ARE RESPONSIBLE FOR CHECKING MY GRADES FOR ANY 0'S YOU MIGHT HAVE.

Suppose that you have 80% of the answers on a quiz correct, but still have a 0 on that quiz. That means you have the opportunity to revise and re-submit the quiz for a higher grade. But if you do not re-submit that quiz, the grade will remain 0. The grade will not magically turn into 80. If you do not want to revise the quiz, re-submit it and ask for a real (non-0) grade.

COURSE OUTCOMES:

You will acquire proficiency in critically assessing reasons for claims made about the world. You will be able to successfully assess arguments, and to successfully construct your own arguments. You will acquire an appreciation of and skills in using language, as well as a sense of how language is used to convey information about the world. You will discover how to use the techniques of critical thinking to ask questions, find interesting and important things to say about texts (of any kind), how to find deficiencies in information, how to measure the quantity of information in a text using your imagination, how to conduct an intelligent literature search, how to find fallacies in reasoning, how to answer certain kinds of questions that appear on the LSAT exams, how to engage in a debate, and how to determine the argument structure of large texts.

COURSE ASSESSMENT

Assessment of student's ability to critically analyze simple and complex arguments will be achieved by the employment of examinations, written analyzes of selected texts that will be done at home, in-class participation, solutions to various problems and puzzles posed in class and in the textbook, and a mid-term and final examination which will emphasize written critical argument analyzes over short answers. The percentage breakdown of these assessment requirements will be as follows:

Quizzes (3)	27%	(9% each)
Mid-term	9%	
Final examination	9%	
Written evaluations of arguments (5)	45%	(9% each)
Portfolio of written work	10%	

There are 11 items that will be graded, so there are $100 \times 11 = 1100$ total points. Since $90 \times 11 = 990$, any total from 990 through 1100 is an A. Here are the numbers:

A	990-1100
B+	935-989
B	880-934
C+	825-879
C	770-829
D	660-769
F	0-659

QUIZ #1 (Due before the end of the second week of class, Friday, January 26th)

Make sure you do this assignment the first week of class. Submit it to the Quiz #1 unit on the course webpage. Do not e-mail it to me. You will get 100 on this quiz by simply completing it and submitting it to me on time. If you submit it later than Friday, January 26th, you will be penalized 40 points. (Use double-spacing and standard margins for the 4 pages.)

Background information: When we argue, we make claims about the world (these claims are called the conclusion of the argument) and provide reasons or evidence for those claims (these reasons are called the premises of the argument). Whenever one confronts an argument, the basic question is: are the reasons good? If they are good reasons, it is rational to believe the claim is true. If the reasons are bad, it is rational to withhold belief about the truth of the claim.

The assignment: NOTE CAREFULLY THAT THERE ARE 2 PARTS TO THIS ASSIGNMENT. **MAKE SURE YOU DO BOTH PARTS.**

CALL THE FIRST PART 'ANALYSIS.' CALL THE SECOND PART 'METHODS.'

- (i) **PART 1** Find a newspaper editorial. (The best place for that is The New York Times.) Write a two page critical evaluation of it. **IMPORTANT:** Either clip the editorial out of the newspaper, download it (if you are reading it on-line), or **SAVE THE LINK TO THE EDITORIA. SAVE IT.** You will need it at a future date in this course.
- (ii) **PART 2** Describe in two pages the method you use to make a critical evaluation of an argument (such as your critical evaluation of the newspaper editorial). Try to describe this method in as much detail as you can provide. Think very carefully about it as you write.

Note: The critical evaluation of the editorial is two pages and the description of your method of critical evaluation is at most two pages. So you will submit 4 pages of writing.

Plagiarism

You should be aware that plagiarism is a serious offense that can jeopardize your academic career at Rutgers and your future career as well. For information, either consult the University Code of Student Conduct or visit the Student Judicial Affairs website <http://judicialaffairs.rutgers.edu>

**ALL REQUIRED WORK IS DUE
Wednesday, May 9th Noon**

**Any work submitted after that
time will NOT be accepted.**

**Students with disabilities, please
read the following:**

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this

letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>."