

**AEC 5416 – Critical and Creative Thinking in Problem Solving and Decision Making- 3 credits  
Agricultural Education and Communication**

**Course Instructor:**

Dr. Sarah Bush  
117C Bryant Hall  
[sab5271@ufl.edu](mailto:sab5271@ufl.edu)  
352-273-2613

**Office Hours:** Thursdays 10:30-12:30PM or by appointment

**Course Time and Location:** Tuesday 5-7 periods (11:45-2:45), Rolfs 316

**Course Description:**

Creating a foundation for effective leadership practice through the analysis and development of critical and creative thinking skills and dispositions as applied to dynamic organizational and community contexts. Contexts include agriculture, life sciences, natural resources, and related settings.

**Course Objectives:**

Upon completion of this course, the student will be able to...

- Identify central tenants of critical and creative thinking processes.
- Analyze elements of critical and creative thinking in a broad set of contexts.
- Synthesize elements of critical and creative thinking into a philosophy of practice.
- Apply critical and creative thinking skills to address problem solving and decision making.

**Course Required Textbooks:**

- DeBono, E. (1985). *Six thinking hats*. Back Bay Books.
- Haber, J. (2020). *Critical thinking*. The MIT Press.

**Optional/Additional Readings:**

Additional supplementary readings will be assigned. An electronic copy or web address will be provided in Canvas for access. Other textbook and online resources include:

- Cropley, A. J. (2000). Defining and measuring creativity: Are creativity tests worth using? *Roeper Review*, 23(2), p. 72.
- DeBono, E. (1995). Serious creativity. *The Journal for Quality and Participation* 18(5), p. 12-18 Elder, L. and Paul, R. (1998). Critical thinking: Developing intellectual traits. *Journal of Educational Development*, 21(3), p. 34-26.
- Facione, P. A., Giancarlo, G. A., Facione, N. C., and Gainen, J. (1995). The disposition toward critical thinking. *Journal of General Education*, 44(1), p.1-25.
- Gardner, H. (1994). Intelligences in theory and practice: A response to Elliot W. Eisner, Robert J. Sternberg, and Henry M. Levin. *Teachers College Record*, 95(4), p. 576-583.
- Kahneman, D. (2011). *Thinking fast and slow*. Farrar, Straus, and Giroux.
- Mahoney, M., & Chesters, K. (2021). *The creative nudge: Simple steps to help you think differently*. Laurence King Publishing.

- Neuronswaves. (2023). *Critical thinking, logic & problem solving: The complete guide to superior thinking, systematic problem solving, making outstanding decisions, and uncover logical fallacies like a pro*. Self-publishing.
- Nijs, D. E. L. W. (2015). The complexity-inspired design approach of Imagineering. *World Futures: The Journal of New Paradigm Research*, 71(1-2), p. 8-25.
- Nilsook, P., Utakrit, N., and Clayden, J. (2014). Imagineering in education: A framework to enhance students' learning performance and creativity in thinking. *Education Technology*, 54(1), p. 14-20.
- Paul, R. and Elder, L. (2020). *International critical thinking manifesto*. Retrieved from <https://www.criticalthinking.org/pages/international-critical-thinking-manifesto/1372>
- Prosperi, L. J. (2018). *The Imagineering process: Using the Disney theme park design process to bring your creative ideas to life*. Theme Park Press.
- Rutherford, A. (2018). *Critical thinkers: Methods for clear thinking and analysis in everyday situations from the greatest thinkers in history*. Self-publishing.
- Stedman, N. and Andenoro, A. C. (2015). Emotionally engaged leadership: Shifting paradigms and creating adaptive solutions for 2050. In M. Sowcik (Ed.), *Leadership 2050: Critical challenges, key contexts, and emerging trends* (p145-157). Emerald Printing.
- Sternberg, R. J., O'Hara, L. A., and Lubart, T. I. (1997). Creativity as an investment. *California Management Review*, 4(1), p. 8-21

**Course Expectations:**

First and foremost, this class should be fun and enjoyable! With that, this is an interactive class with a high level of student engagement – you must participate. This course is pragmatic in its approach, and it is one that you will find useful in your future contacts and work with people.

Attendance is mandatory and recorded. It is up to you to attend class and make the most of it.

All students are expected to check Canvas (<http://elearning.ufl.edu>) on a regular basis. Please ensure that you have access to this service. Additional handouts, readings and supplemental material will be housed on Canvas, this includes your grades.

All assignments are due at 11:55pm on the date indicated on Canvas and in this syllabus, unless otherwise noted. Late work is accepted, penalized by 10% per University business day.

**Attendance and Make-Up Work:**

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: (<https://gradcatalog.ufl.edu/graduate/regulations/>) and require appropriate documentation. Additional information can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

**Grade Breakdown:**

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

**Please note grades are based on points not percentages. You cannot earn a percentage of a point.**

A: 465 - 500 pts	B+: 435 - 449 pts	B-: 400 - 414 pts	C: 365 - 384 pts	D+: 335 - 349 pts	D-: 300 - 314 pts
A-: 450 - 464 pts	B: 415 - 434 pts	C+: 385 - 399 pts	C-: 350 - 364 pts	D: 315 - 334 pts	E: 299 and Below

**Assignment Summary:**

Assignment	Due Date	Points Available	Points Earned
Task Master (X2)	Assigned	25 each (50 total)	
Creativity in the News	2/27	25	
Journal Article Critiques (X5)	1/16, 2/6, 2/20, 3/19, 4/2	25 each (125 total)	
KAI Reflection	1/30	50	
Creativity/Critical Thinking in Popular Culture & Teaching Creativity	3/26	100	
A Children's Story (Or AOC)		100	
Presentation	4/16	25	
Final	4/23	100	
Personal Application- Culminating Assignment	4/30	25	
<b>TOTAL POINTS AVAILABLE</b>		<b>500</b>	

### Assignment Descriptions:

All assignments must be turned in on Canvas on the date assigned by 11:55pm. Emailed assignments will not be accepted unless pre-arranged (this includes through Canvas). All papers are expected to be typed in 12-point Times New Roman or Calibri with 1-inch margins and utilize APA style formatting. Each assignment must follow the requirements in the rubric. All assignments will be returned to students on Canvas.

#### Task Master (25 points each; 50 points total)

At the beginning of each class, we will complete an activity that will require creative and critical thinking. This fun exercise will be modeled after the television show- Taskmaster. You'll serve as the task master twice throughout the semester.

#### Creativity in the News (25 points)

You'll be tasked with finding an example of a time creativity was used to create a solution to a complex issue. You'll complete a worksheet and share about your article in class.

#### Journal Article Critiques (20 points each; 100 points total)

For five of articles discussed this semester you are to provide a critique of the piece. The Critique should include the demonstrated use of critical thinking tools and a Reflective statement (what did you learn, how did you feel about it/what did you think of the piece, and how can you use it). 1 page single-spaced or 2 double-spaced pages. These are due on the weeks that the articles are discussed in class.

#### KAI Reflection (50 points)

You will be taking the KAI as part of this course, with that in mind, you will complete a reflection sharing your thoughts about your score, what that means to you, and how you can effectively use this information in your work. Paper should be 2-4 (double-spaced) pages.

#### Creativity/Critical Thinking in Popular Culture & Teaching Creativity (100 points)

In a small group, you'll be assigned a popular culture book. Your group will create a 2-page white paper handout and teach a 45-60 minute lesson on the content of the book

#### A Children's Story or Assignment of Choice (100 points)

Concepts of class will be used to create a story – a children's story! You are to identify a topic within

your field of study, but break it down into reasonable chunks for a child. The book should include illustrations and may be completed digitally. If you have a different idea for a creative way to present your information, you may propose an alternative project or “assignment of choice.”

### **Personal Application (25 points)**

As a culminating assignment, you’ll be asked to complete a worksheet outlining how you can apply course content to a passion or future/current work related project.

### **Online Course Evaluation Process:**

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

### **Academic Honesty:**

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

### **Software Use:**

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

### **Student Privacy:**

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

### **Services for Students with Disabilities:**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

### Campus Helping Resources:

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu](http://www.counseling.ufl.edu)
  - Counseling Services
  - Groups and Workshops
  - Outreach and Consultation
  - Self-Help Library
  - Wellness Coaching
- U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)
- Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>
- Student Success Initiative, <http://studentsuccess.ufl.edu>
- Student Complaints:
  - Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/>
  - Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

### Course Outline:

Week	Topic	Reading	Assignment Due
1 Jan. 9	Introduction and Course Expectations		
2 Jan. 16	Intellectual Traits	Elder & Paul, 1998 Gardner, 1989*	Journal Critique 1
3 Jan. 23	How we think – Facts and Figures	DeBono, White Hat	
4 Jan. 30	Emotions and Feelings	DeBono, Red Hat Stedman & Andenoro, 2015	KAI Reflection
5 Feb. 6	Caution and Speculation	DeBono, Black and Yellow Hats Paul & Elder, 2020*	Journal Critique 2
6 Feb. 13	Genealogy of Critical Thinking	Haber, Part 1	
7 Feb. 20	Components of Critical Thinking	Haber, Part 2 Facione, et al 1995*	Journal Critique 3

8 Feb. 27	Creative Thinking	DeBono, Green Hat DeBono, 1995	Creativity in News
9 Mar. 5	Creativity and Designing	DeBono, Blue Hat	
<b>Spring Break</b>			
10 Mar. 19	How we Create	Prosperi, Part 1 Nijs, 2015*	Journal Critique 4
11 Mar. 26	Student Led Day		Pop Culture
12 Apr. 2	Blue Skies Ahead	Prosperi, Part 2 Nilsook, 2014*	Journal Critique 5
13 April 9	Assessment and Measurement	Cropley, 2000	
14 April 16	Putting the Pieces Together & Class Culmination		A Children's Story (or AOC) presentation
15 April 23	<b>No Class- AIAEE</b> A Children's Story (or AOC) Due		
<b>Finals Week</b> Personal Application Due 4/30			

Drop/Add, 1/8-12

Last Day to Drop, 4/12