SYLLABUS

PSYCHOLOGY 734-002: Cognition, Stress, and Individual differences in Performance

***Instructor*: Tyler Shaw, Ph.D.**
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Office Hours: Thursday 12p-1:30p or by appt.

Course Description: This course reviews the psychology of human performance, i.e. the factors that influence people's efficiency and style of response in performing laboratory and real-world tasks. The course will cover both theory, derived primarily from cognitive science, and some aspects of human factors practice. It also covers general methodological principles in studies of performance, including the use of experimental studies to test information-processing models of performance. Performance depends on various factors, including the nature of the task performed, the environment in which performance takes place, and the human performer. The course will have three major themes. The first theme focuses on task factors. Performance is controlled by a variety of different component processes, associated with functions such as attention, memory, response selection and so forth, and we will begin with a review of these models. The second theme for the course considers environmental factors that can cause stress. The third and major theme of the course is concerned with individual differences in performance, covering factors such as emotional intelligence, personality, error-proneness, mood, evaluation anxiety, and the relevance of these concepts to real-world problems such as occupational selection. At the end of the course, you should have a deeper understanding of psychological theories of performance, the use of experimental methods in testing these theories, and the relevance of laboratory performance studies to human factors and occupational psychology.

Course structure: This course will be predominantly taught in a seminar format -- the instructor will lead the discussion for the first portion of class, and students will lead the discussion of the papers assigned for each week for the remainder of the class. I expect everyone (especially the discussion leaders!) to read the assigned articles before class.

Reading Assignments: Matthews, G., Davies, D.R., Westerman, S.J., & Stammers, R.B. (2000) *Human Performance: Cognition, Stress and Individual Differences*. London: Routledge.+ **reading list**

The following texts may be helpful but are not required:

Anderson, J.R. (1999). *Cognitive psychology and its implications* (5th ed.). New York : W.H. Freeman. Publisher's website: http://www.bfwpub.com.

Hancock, P.A., & Desmond, P.A. (Eds.) (2001). ***Stress, workload, and fatigue*. Mahwah, NJ: Erlbaum.**

Wickens, C.D., & Hollands, J.G. (1999). *Engineering psychology and human performance* (3rd ed.) New York: Prentice-Hall. Publisher's website: http://vig.prenhall.com.

Attendance Policy Although I do not grade on or take attendance, this is a graduate level course and I expect to see you in class each week. Furthermore, your absence does not allow you to participate in course discussion and will therefore affect your participation grade.

Grading & Evaluation:
Your course grade will be based upon facilitation of class discussions, a final term paper, a take-home midterm, 2 reaction papers, and participation in class discussions. Each of these will contribute the following percentage toward your final grade:

Discussion leads (2 @ 10% each): 20%
Take-home Midterm: 25%
Final Paper: 25%
Reaction papers (2 @ 10% each): 20%
Participation: 10%

Grading scale: I use a 10-point grading system (e.g., 90-100 = A, 80-89 = B, etc.) with +/- (e.g., 79.5-82 = B-, 88-89.49= B+, etc.).

Discussions/Readings **(20%):** Students will be assigned to lead 2 class discussions of the assigned readings. It may be necessary to prepare a handout or a few PowerPoint slides to help organize the discussion. **All students must read the article/chapter ahead of time and be prepared to take involvement in the class discussion. Your grade for your discussion is not based solely on your presentation/ discussion lead, but is also based on your contribution to discussions in general.**

Some tips on a great discussion: Ideally, what I would like to see is an interactive session that actively engages members of the class. PowerPoint slides are certainly an acceptable format for facilitating discussion, but it is recommended that you pose interesting questions to the class at various points during the discussion. Additionally, the more creative your discussion, the better! Creativity can be induced through the use of videos, demonstrations, anecdotes, a consideration of real-world applications, other literature, etc. Since we're together for almost 3 hours every week we may as well have some fun!

Reaction papers **(20%).** You are required to write a short reaction paper (300 words) following two readings. Your paper should describe your views on what is important and challenging about the topic. The purpose of these papers is to give you the opportunity to express your own ideas regarding the readings for that week. The paper must be submitted to me AND THE STUDENT(S) leading the discussion that day at least 24 hours before the topic to be discussed and CANNOT overlap with your discussion days. You will receive full credit for your paper provided that it is relevant to the topic, clearly expresses your views, and is of adequate length. Points will be deducted only if these criteria are not met.

Paper **(25%):** You are required to write an 8-10 page paper. The paper should be a unique performance/real-world application of one of the major topics we've discussed (EXAMPLE: evaluation anxiety in sports performance). Though this paper is not meant to be a comprehensive literature review, the use of multiple references is ideal. To ensure that the topic you've chosen is appropriate, you should submit your topics to me at least 2 weeks before the due date of the paper. Paper will be due on Friday, May 4.

Take-home midterm **(25%):** There will be one take home exam that you will have 1 week to complete. The format of this exam will be a mix of short answer and essay questions.

Make-up policy: If you miss the due date for the take-home midterm or paper, a well documented excuse will be required, unless you received the OK from me beforehand. The take-home exam will be due on March 6.

Other Policies:
***Special needs*:**
Every effort will be made to accommodate students with a disability or special needs. If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office.

***University Honor policy*:**

Academic dishonesty in any form will not be tolerated. I will deal with academic dishonesty in accordance with George Mason University's Student Code of Conduct. I recommend that you familiarize yourself with the policies set forth by GMU. The instructor for this course reserves the right to enter a failing grade to any student found guilty of an honor code violation.

Important Dates:
Last day to add: January 31st
Last day to drop: February 24th

Course Schedule

Week	*Date*	*Topic*	*Corresponding Matthews Chapter**
1	*24-Jan*	*Course Intro*	*Ch1*
2	*31-Jan*	*Cognitive Psychology*	*Ch 2 (pgs 21-35)/Ch 3 (pgs45-49)*
3	*7-Feb*	*Working Memory and Selective/Divided Attention*	*Ch 3 (63-65)/ Ch 70-80/ Ch 5*
4	*14-Feb*	*Vigilance and monitoring*	*Ch 6*
5	*21-Feb*	*Skill acquisition*	*Ch 7*
6	*28-Feb*	*Human error*	*Ch 8*
7	*6-Mar*	*Stress and arousal (**test due**)*	*Ch 9*
8	***13-Mar***	***no class-Spring break***	
9	*20-Mar*	*Driver Stress and Fatigue*	*See reading list*
10	*27-Mar*	*Individual differences in ability*	*Ch 14*
11	*3-Apr*	*Personality and Mood*	*Ch 15*
12	*10-Apr*	*Health, cognition and performance Cognitive and Emotional*	*Ch 13*
13	*17-Apr*	*Intelligence (**paper topic approval**)*	*See reading list*
14	*24-Apr*	*Evaluation anxiety & performance*	*See reading list*
15	*1-May*	*Cognitive aging (**paper due May 4**)*	*Ch 16*

***All readings listed are accompanied by the reading list.**

Note: This schedule may be subject to change.