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**Class Meets:** 9:00 - 11:55 AM **Thursday** **Room 115 / Bldg 41**

**Text:**

Plous, S. (1993). *The psychology of judgment and decision making*. New York: McGraw-Hill.

**Readings**

Chapman, G. B. (2004). The psychology of medical decision making. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment & decision making* (pp. 585-603). New York: Blackwell Publishing.\*

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist*, 49, 725-747.

Ericsson, K. A., Krampe, R. T., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert Performance. *Psychological Review*, 100, 363-406.

Ericsson, K. A., & Lehmann, A. C. (1996). Expert and exceptional performance: Evidence of maximal adaptation to task constraints. *Annual Review of Psychology*, 47, 273-305.

Gigerenzer, G. (2004). Fast and frugal heuristics: The tools of bounded rationality. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment & decision making* (pp. 62-88). New York: Blackwell Publishing.\*

Keren, G., & Teigen, K. H. (2004). Yet another look at the heuristics and biases approach. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment & decision making* (pp. 89-109). New York: Blackwell Publishing.\*

Larrick, R. P. (2004). Debiasing. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment & decision making* (pp. 316-337). New York: Blackwell Publishing.\*

Lipshitz, R., Klein, G., Orasanu, J., & Salas, E. (2001). Taking stock of naturalistic decision making. *Journal of Behavioral Decision Making*, 14, 331-352.

Payne, J. W. & Bettman, J. R. (2004). Walking the scarecrow: The information-processing approach to decision research. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment & decision making* (pp. 110-132). New York: Blackwell Publishing.\*

Phillips, J. K., Klein, G., & Sieck, W. R. (2004). Expertise in judgment and decision making: A case for training intuitive decision skills. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment & decision making* (pp. 297-315). New York: Blackwell Publishing.\*

Van Gog, T., Ericsson, K. A., Rikers, R. M. J. P., & Paas, F. (2005). Instructional design for advanced learners: Establishing connections between cognitive load and deliberate practice. *Educational Technology, Research and Development*, 53, 73-81.

Weiss, D. J., & Shanteau, J. (2003). Empirical assessment of expertise. *Human Factors*, 45, 104-114.

Weiss, D. J., & Shanteau, J. (2004). The vice of consensus and the virtue of consistency. In K. Smith, J. Shanteau, & P. Johnson (Eds.), *Psychological investigations of competence in decision making* (pp. 226-240). Cambridge: Cambridge University Press.\*

Williams, A. M., & Ericsson, K. A. (2005). Perceptual-cognitive expertise in sport: Some considerations when applying the expert performance approach, *Human Movement Science*, 24, 283-307.

\* Requested for UWF course reserve, 2 hour check-out.

### **Course Description**

This course will survey current theories of human judgment and decision making. Students will be introduced to both normative models of decision making (based in statistics, philosophy, psychology, and economics) and descriptive models of decision making (based on research in cognitive psychology and social psychology). The role of expertise in judgment and decision making will also be discussed. The course will include discussion of judgment and decision making under a variety of conditions of uncertainty, including aviation, diagnosis and treatment decisions in clinical psychology and medicine, forecasting, risk assessment, and evaluation of eyewitnesses and jury decisions.

### **Student Learning Outcomes**

The successful student will be able to:

Describe and understand the theoretical and empirical background on judgment and decision making.

Describe normative and probabilistic models for decision making.

Identify heuristics and biases in decision making.

Describe naturalistic decision making and differentiate this from normative models of decision making.

Describe the differences between expert and novice decision makers in terms of knowledge and information processing strategies.

Understand the development of expertise in decision making.

Develop a detailed knowledge and understanding of theory and empirical data concerning decision making within a specific domain of knowledge.

### **Evaluation**

The course will be organized as a seminar and divided into two sections. The first section will consist of a survey of the theories and literature on judgment and decision making in general.

The second section will consist of an in-depth study of research questions, methodology, and empirical findings on a specialized topic in judgment and decision making. This semester, the specialized topic will be the development of expertise and the influence of expertise on judgment and decision making.

Class participation will be essential for a successful course. Students will be expected to come to class prepared to discuss the scheduled topic.

### **Exams**

Take-home essay exams will be given at the end of discussion of the material in Plous and at the end of discussion of the readings. Each exam will consist of 5-6 questions. You may use your books, class notes, and other print sources to prepare your answers. You may not consult with any other student or faculty member when preparing your responses.

Exam essays must be submitted either electronically or in hard copy **no later than 5:00 PM** on the due date for the exam.

**Format for essay exams.** Prepare a cover page for your exam with your name, exam information (e.g., Essay Exam 1), class information (EXP 5575, Fall 2006), and a statement that you have adhered to the restriction to use only your books, class notes, and other print sources when preparing your answers. All answers should be typed, double-spaced, using 1 inch margins and 10-12 point font. Use a unique header that is not your name on all pages of your exam. This will ensure that I can keep all parts of an exam together during printing (if you send your exam electronically) without putting a personal identifier on each page. (I prefer to read answers without easily seeing the name of the author.) You need not answer the questions in the order asked, but your answers should appear in your submission in the same order as the questions in the exam. Clearly identify the question number at the beginning of each response. (You do not need to reproduce the question itself.)

Responses for questions worth 5 points should be no longer than 3 pages.

Responses for questions worth 10 points should be no longer than 5 pages.

*NOTE:* Page limits are **upper limits** for responses. You are not required to write a response of the maximum length to earn full credit. A clear, concise answer might be written that does not require the maximum page allowance.

### **Paper on Expertise and JDM**

Each student will identify a domain in which to examine the nature of expertise. This will not be a typical literature review paper. Instead, you will be expected to briefly identify and describe the domain selected and describe the nature of expertise within that domain. This discussion should include the following:

- how expertise is defined
- criteria that distinguish experts from non-experts (how are experts identified in the domain?, how is expertise assessed?)
- the process that characterizes the development of expertise (how is it trained?, how does skill evolve during the development of expertise?)

- the consequences of expertise on judgment and decision making within the domain (include a comparison with novices or non-experts)

The readings on expertise and JDM will suggest some general characteristics of experts and expert decision making that might apply across domains. However, you should go beyond these general statements and provide specific illustrations and discussions of the nature of expertise for the domain you select. This paper will serve as the basis for a discussion of domain-specific expertise on during the final class session.

**Co-Facilitation Assignment**

Each student will act as resource person and co-facilitator for one class session based on primary source readings. A co-facilitator is expected to read the assigned papers especially carefully, write a summary of the important points made in the readings, and write two substantive questions that he/she will use to lead a discussion of the readings, and be prepared to answer questions about the readings. **Co-facilitators should send this written assignment to me electronically no later than 5:00 PM on the Tuesday before the class in which the relevant readings will be discussed.**

**Grading**

Grades will be based on two take-home essay exams, co-facilitation of a class discussions (and the written preparatory work for this activity), a paper on expertise and JDM, and class participation. These will be weighted as follows:

Take-Home Exam (Plous)	30%
Take-Home Exam (Readings)	30%
Co-Facilitation of Class Discussions	15%
Includes written preparatory assignment	
Paper on Expertise in a Domain	15%
Class Participation	10%

Letter grades will be assigned as follows:

93% or better	A	77% to 79%	C+
90% to 92%	A-	73% to 76%	C
87% to 89%	B+	70% to 72%	C-
83% to 86%	B	60% to 69%	D
80% to 82%	B-	50% or less	F

**UNIVERSITY POLICY ON ACADEMIC CONDUCT**

Honesty in our academic work is vital, and we will not knowingly act in ways which erode that integrity. Accordingly, we pledge not to cheat, nor to tolerate cheating, nor to plagiarize the work of others. (UWF Student Handbook).

Academic dishonesty is a serious offense and will be taken seriously. Please refer to the UWF

Student Handbook for a list of behaviors that fall under the definition of academic misconduct. The Handbook also outlines the penalties for academic misconduct and the due process procedures that must be followed. (The handbook is posted on the UWF web site at: <http://www.thezonelive.com/zone/public/6/handbook.asp>)

**ASSISTANCE FOR STUDENTS WITH SPECIAL NEEDS**

Students with special needs who require specific accommodations for examinations or other course activities should contact Barbara Fitzpatrick, Director of the Student Disability Resource Center (SDRC) (web address: <http://www.uwf.edu/SDRC>, e-mail: [sdrc@uwf.edu](mailto:sdrc@uwf.edu), telephone: 474-2387). SDRC will provide the student with a letter for the instructor that will specify recommended accommodations for individual students.

## Schedule of Lecture Topics, Assigned Readings, and Exams

Lecture Topics, Assigned Readings, and Exams		
Date	Lecture Topics / Exams	Assigned Reading
Aug 31	Course Mechanics Overview and theoretical background for JDM in sensory processing and cognition	Plous: Ch 1, 2, 3, & 4
Sept 7	Contextual and social influences on JDM	Plous: Ch 5, 6, 17, & 18
Sept 14	Normative & descriptive models of decision making	Plous: Ch 7, 8, & 9
Sept 21	Florida Faculty Development Consortium Conference	Class will not meet Dr. Stanny out of town
Sept 28	Heuristics & biases as irrational cognition <b>Distribute Take-Home Exam on Plous</b>	Plous: Ch 10, 11, 12, 13, 14, 15, & 16
Oct 5	Heuristics & biases as bounded rationality	Gigerenzer (2004) Keren & Teigen (2004) Payne & Bettman (2004)
<b>Oct 12</b>	Decision traps Debiasing <b>Take-Home Exam on Plous Due (5:00 PM)</b>	Plous: Ch 19, 20, & 21 Larrick (2004)
Oct 19	Naturalistic decision making <b>Discuss Paper on Expertise and JDM</b>	Lipshitz, et al. (2001)
Oct 26	POD Network Conference	Class will not meet Dr. Stanny out of town
Nov 2	Nature of Expertise	Ericsson & Charness (1994) Ericsson & Lehman (1996)
Nov 9	Identification & Measurement of Expertise	Weiss & Shanteau (2003, 2004)
Nov 16	Development of Expertise	Ericsson, Krampe, & Tesch-Romer (1993) Phillips, Klein, & Sieck (2004) van Gog, Ericsson, Rikers, & Paas (2005)
<b>Nov 23</b>	<b>Thanksgiving Break</b>	
<b>Nov 30</b>	Applications: Expertise in the context of sport Medical Decision Making <b>Distribute Take-Home Exam on Readings</b>	Chapman (2004) Williams & Ericsson (2005)
<b>Dec 1</b>	<b>Paper on Expertise and JDM due</b> <i>e-mail a copy of your paper to me and to all students in the class by 5:00 PM</i>	
<b>Dec 7</b>	<b>Presentations on Expertise papers &amp; Discussion of the Nature of Expertise</b>	Student papers sent via e-mail on Dec 1
<b>Dec 12</b>	<b>Final Exam Week</b> <b>Take-Home Exam on Readings Due (5:00 PM)</b>	