Brief Description: This advanced seminar will deal with the nature and origins of psychotic disorders. We will examine the symptoms of psychotic disorders and their developmental course across the life span. The class will also cover empirical findings on etiology and neural mechanisms underlying psychotic symptoms.

Overview.
This seminar is intended to provide an overview of current scientific knowledge about the nature and origins of schizophrenia and other psychotic disorders. All levels of analysis will be covered; behavioral, cognitive, and biological. The format will be lecture, viewing of videotapes of patients, student reports on scientific articles, and class discussion. We will begin by covering the symptoms associated with psychosis and the epidemiology of psychotic disorders, including sex differences, cross cultural factors, and developmental characteristics. Videotaped interviews of patients will be used to examine the behavioral phenomenology of the psychotic disorders. The major areas of inquiry in the field of psychosis research will then be addressed. We will cover the empirical research findings on the origins of vulnerability to psychosis, including genetic and environmental factors. In the next phase, cognitive and behavioral correlates of psychosis will be examined. Moving to the biological level, we will examine the major findings from neuroimaging and postmortem research dealing with structural and functional brain abnormalities. Neurotransmitter and neurohormonal factors will also be covered. Throughout the semester, we will consider the implications of the research findings for models of the etiology of psychosis. We will also return to some of the major questions facing the field:

What, if any, are the key defining elements of psychotic disorders?
What is the relative contribution of inherited versus acquired vulnerabilities to the etiology of psychotic disorders?
Why does the risk for onset of psychosis change so dramatically across the life course?
Is the neurocircuitry abnormality involved in psychosis primarily attributable to one neurotransmitter or neurocircuit, or due to the interaction among multiple neural systems?

After the first two classes, in each subsequent class meeting, there will be assigned readings, with students taking primary responsibility for presenting an article and co-leading a discussion of the research findings. Grades will be determined on the basis of class participation and an end-of-semester research paper that will be described in detail in class. (8-10 pages, focus on empirical research findings, APA style references)

Prerequisites: Psych 210, Abnormal Psychology

Book: Divided Minds: Twin Sisters and Their Journey Through Schizophrenia (Amazon, Paperback $5.) by Pamela Spiro Wagner

Sept. 2 First Class
The Psychotic disorders: symptoms, diagnosis, course and outcome.

BACKGROUND


Kirkbride, Jaimes B; Fearon, Paul; Morgan, Craig; Dazzan, Paola; Morgan, Kevin; Tarrant, Jane; Lloyd, Tuhina; Holloway, John; Hutchinson, Gerard; Leff, Julian P; Mallett, Rosemarie M; Harrison, Glynn L; Murray, Robin M; Jones, Peter B. Heterogeneity in Incidence Rates of Schizophrenia and Other Psychotic Syndromes: Findings from the 3-center AESOP study. [References]. [Journal; Peer Reviewed Journal] Archives of General Psychiatry. Vol 63(3) Mar 2006, 250-258.


Sept. 16. The phenomenology of psychotic disorders: individuals at risk and diagnosed patients. (Videotapes)


ORIGINS OF VULNERABILITY
Sept. 23. Genetic factors and schizophrenia; inherited liabilities and mutations


DeLisi LE. The effect of cannabis on the brain: can it cause brain anomalies that lead to increased risk for schizophrenia?. [Review] [135 refs] [Journal Article. Review] Current Opinion in Psychiatry. 21(2):140-50, 2008 Mar. **


** ASSOCIATED DEFICITS **

October 7. Motor abnormalities; premorbid motor deficits, spontaneous dyskinesias, drug-induced movement abnormalities. (videos)

Mittal, Vijay A; Tessner, Kevin D; Trotman, Hanan D; Esterberg, Michelle; Dhrub, Shivali H; Simeonova, Diana I; McMillan, Amanda L; Murphy, Erin; Saczawa, Mary E; Walker, Elaine F. Movement abnormalities and the progression of prodromal symptomatology in adolescents at risk for psychotic disorders. [References]. [Journal; Peer Reviewed Journal] Journal of Abnormal Psychology. Vol 116(2) May 2007, 260-267. **


October 14 – Fall Break

October 21. Sensory and perceptual deficits; olfactory, visual, auditory and kinesthetic abnormalities.


** BIOLOGICAL ASPECTS **

** November 4. Structural Brain abnormalities **


van Erp, Theo G. M; Saleh, Peter A; Rosso, Isabelle M; Huttunen, Matti; Loennqvist, Jouko; Pirkola, Tiia; Salonen, Olli; Valanne, Leena; Poutanen, Veli-Pekka; Standertskjold-Nordenstam, Carl-Gustav-.; Cannon, Tyrone D. Contributions of genetic risk and fetal hypoxia to hippocampal volume in patients with schizophrenia or schizoaffective disorder, their unaffected siblings, and healthy unrelated volunteers. [Journal Article] American Journal of Psychiatry. Vol 159(9) Sep 2002, 1514-1520. **


Seidman, Larry J; Faraone, Stephen V; Goldstein, Jill M; Kremen, William S; Horton, Nicholas J; Makris, Nikos; Toomey, Rosemary; Kennedy, David; Caviness, Verne S; Tsuang, Ming T. Left hippocampal volume as a vulnerability indicator for schizophrenia: A magnetic resonance imaging morphometric study of nonpsychotic first-degree relatives. [Journal Article] Archives of General Psychiatry. Vol 59(9) Sep 2002, 839-849.

** November 6. Functional Brain abnormalities **
November 11. The dopamine system in psychosis.


November 18. GABAergic abnormalities, excitatory amino acids and serotonin.


Developmental Aspects

November 25. Developmental aspects of psychosis.


**December 2. Treatment.**


**December 09. Formulating theories of etiology.**


Reference Readings

