

Concentrations in Psychology
(for Majors in Psychological & Brain Sciences)

(Revised August 2018)

For students who matriculated PRIOR to Summer 2016, please see p. 8 for requirement information regarding *Supplemental Concentrations*.

To augment the major in Psychological & Brain Sciences, the department offers the option of a Concentration for students who wish to engage more intensively with a specific area within the discipline.

A Concentration may be a valuable experience for students planning on graduate study in psychology or related fields, or for those who have a particular interest or want to gain expertise in one of the approved Concentrations. It may provide a useful preparation for Honors program in psychology, or a substitute for the Honors experience for those students who may not qualify for Honors.

Completion of a Concentration entails 12 units:

- (i) three courses (for a total of 9 units), at least one of which must be an advanced, 400-level class; and
- (ii) a semester of research in an appropriate, approved lab, consisting of Psych 444C: *Independent Study for a Concentration*, which requires successful completion of an APA-style research paper, or approved Honors project. In some cases a relevant internship or practicum would be an appropriate alternative to research experience. (NOTE: Students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research, depending on the nature of the project intended for Psych 444C; the additional independent research is at the discretion of the research mentor, and will not be counted toward completion of the concentration requirements.)

Courses taken for a Concentration may be used to fulfill no more than one of the Core categories or distribution requirements of a Psychological & Brain Sciences major. None of the units for a Concentration can be counted for any other major or minor (i.e., there is no double counting). For those pursuing the Psychological & Brain Sciences: Cognitive Neuroscience major, the Cognitive Neuroscience Concentration is not an option.

Each Concentration has a P&BS faculty advisor/coordinator who will meet with interested students to help ensure successful and appropriate completion of the Concentration, and who serves as the liaison with the Undergraduate Committee. A student may pursue only one Concentration.

Please see Shelley Kohlman in Psychology room 207B to arrange a Concentration. Forms are available from Shelley, and completed forms must be returned to her in order for a Concentration to be considered officially “in-progress.”

Recognition of the concentration will appear on the student’s academic record under *Milestones*, once all requirements have been met.

The six concentrations currently offered are: Cognition in Children; Cognitive Neuroscience; Lifespan Development; Reading, Language, & Language Acquisition; Experimental Psychopathology; and Personality & Individual Differences.

Concentration:
Cognition in Children

The concentration **Cognition in Children** allows students to acquire deeper knowledge of cognitive processes in infancy and early childhood. The courses for the concentration consider child development more generally and then explore in more depth the development of cognitive, conceptual, linguistic, and social abilities. Students have the opportunity to work in a laboratory that is conducting current research on these topics, allowing them to gain hands-on experience in the research process by collecting and analyzing data from children. Alternatively, students have the option to work at the Washington University Family Learning Center (located on the North campus) or possibly another early childhood center in the greater St Louis region, which will provide hands-on experience interacting with preschool age children in a play environment.

This concentration should prove useful for students who are considering careers in a wide variety of fields – such as medicine (e.g., pediatrics, neonatology, child psychiatry, etc.), education, law, public health and social welfare – that might involve interaction with children and families. It is also excellent preparation for students who are considering graduate study in developmental psychology, cognitive science, education, neuroscience, or related academic fields.

Advisor/Coordinator: Professor Lori Markson

Coursework

Required:

Developmental Psychology – Psych 321

Electives – must include **2 classes**, at least one of which must be at the 400 level:
(Other directly relevant courses may be added or approved by the coordinator.)

The Developing Mind – Psych 218/219 (Sophomore Seminar)

Language Acquisition – Psych 358

Developmental Neuropsychology – Psych 4046

Development of Social Cognition – Psych 4591/4592

Research Mentorship:

Prior approved **research mentorship** with a relevant faculty member. Students will be enrolled in Psych 444A/C (Independent Study for a Supplemental Concentration/ Independent Study for a Concentration) which will include one semester of research plus the successful completion of a substantive **APA-style research paper**, or Honors. (NOTE: At the research mentor's discretion, students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research.)

Potential mentors include: Dr. Pascal Boyer, Dr. Lori Markson, Dr. Rebecca Treiman, and Dr. Desiree White

By special approval: Dr. John Constantino, Dr. Joan Luby, Dr. Natasha Marrus, and Dr. John Pruett

Concentration
Cognitive Neuroscience

The concentration, **Cognitive Neuroscience**, allows students to acquire deeper knowledge of the relation between mind and brain. The courses for the concentration consider the neurobiological basis for psychological functions at a more general level, and then explore in greater depth specialized topics relating to how higher cognitive processes, such as memory, attention, perception, and emotion, emerge from brain function. In addition, students will have the opportunity to work in a laboratory that is conducting current research on these topics, allowing them to gain hands-on experience collecting and analyzing cognitive neuroscience data.

This concentration should prove useful for students who are considering careers in a wide variety of fields – medicine (e.g., psychiatry, neurology, etc.), biotechnology (pharmaceuticals, imaging), and education. It also would provide excellent preparation for students who are considering graduate study in cognitive science, neuroscience, bioengineering, or related academic fields. The concentration also would be of interest to students who have a general interest in the brain and its relation to psychological phenomena.

Advisor/Coordinator: Professor Todd Braver

Coursework

Required:

Biological Psychology – Psy 3401 **or** Principles of the Nervous System – Psy 344

Electives – must include 2 classes, at least one of which is at the 400 level:

(Other courses may be added or approved by the coordinator.)

Drugs, Brain, and Behavior – Psych 374

Cognitive Neuroscience – Psych 3604

Advanced Cognitive Neuroscience WI – Psych 4413

Developmental Neuropsychology WI – Psych 4046

Inside the Disordered Brain – Psych 4765

Functional Neuroimaging Methods – Psych 4450

Biological Pathways to Psychopathology: From Genes and the Environment to Brain and Behavior – Psych 4746 (previously known as Psych 4745)

Cognitive Neuroscience of Film – Psych 488

Research Mentorship:

Prior approved **research mentorship** with a relevant faculty member. Students will be enrolled in Psych 444A/C (Independent Study for a Supplemental Concentration/ Independent Study for a Concentration) which involves one semester of research plus the successful completion of an **APA-style research paper**, or Honors. (NOTE: At the research mentor's discretion, students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research.)

Potential mentors include: Dr. Deanna Barch, Dr. Ryan Bogdan, Dr. Todd Braver, Dr. Ian Dobbins, Dr. Denise Head, Dr. Kathleen McDermott, Dr. Desiree White, and Dr. Jeff Zacks (It may be possible to complete the research mentorship with a faculty member not in this list, but prior approval from the advisor/coordinator is required.)

Concentration
Lifespan Development

Many introductory courses in Developmental Psychology focus on changes that occur from birth to adolescence. The concentration, **Lifespan Development**, provides students with an understanding of the cognitive and physiological changes that occur over the lifespan, with a primary focus on older adulthood. A major goal of the concentration is to provide students with an understanding of the similarities and differences in development at different stages of the lifespan. In addition, through coursework and either laboratory experience or an internship, students will gain an increased understanding of how developmental changes affect an individual's day-to-day functioning.

This concentration is suited for students interested in future work with older adults, as well as for those with an interest in children but who desire a broader, lifespan perspective. It also provides preparation for those with plans to attend graduate school in medicine, psychology, social work, or education, and who may have an interest in gerontology.

Advisor/Coordinator: Professor Mitchell Sommers

Coursework

Required:

Psychology of Aging – Psych 326 **and**
Social Gerontology – Psych 427

Electives – must select at least *one* of the following courses:

(Other courses may be added or approved by the coordinator.)

Developmental Psychology – Psych 321
Contemporary Topics in Developmental Psychology – Psych 4301

Research Mentorship or Internship experience:

Prior approved **research mentorship** with a relevant faculty member, or **internship**. In either case, students will be enrolled in Psych 444A/C (Independent Study for a Supplemental Concentration/ Independent Study for a Concentration) which involves one semester of research/internship plus the successful completion of an **APA-style research paper**, or Honors. (NOTE: At the research mentor's discretion, students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research.)

Research option:

Prior approved laboratory research mentorship related to older adults, and successful completion of a research paper.

Potential research mentors: Dr. Mitchell Sommers, Dr. David Balota, Dr. Sandra Hale, Dr. Denise Head, Dr. Brian Carpenter, and Dr. Lori Markson

Internship option:

Prior approved internship related to older adults, and successful completion of a paper. Possible internships: Work in an assisted-living facility or other community-based program designed to assist older adults. Other internships are available - see Dr. Brian Carpenter for opportunities.

Concentration
Reading, Language, and Language Acquisition

The concentration in Reading, Language, and Language Acquisition provides students with a deep and broad knowledge of linguistic development. The courses look in depth at the development of written and spoken language. Students also will have the opportunity to work in one of the laboratories that is conducting research on these topics, allowing them to gain first-hand experience in collecting and analyzing linguistic data from children and/or adults and older adults.

This concentration is well suited for students who are thinking about careers in such fields as teaching or speech-language pathology. It provides preparation for students who are considering graduate school in developmental psychology, educational psychology, or related fields, and for students with an interest in linguistics.

Advisor/Coordinator: Professor Rebecca Treiman

Coursework:

Required:

Intro to Linguistics - Ling 170D

Electives - must include 2 classes, at least one of which is at the 400-level. These may be chosen from the courses listed below, or from other courses approved by the coordinator.

Introduction to Speech and Hearing Sciences and Disorders - Psych 234

Language Acquisition - Psych 358 or Psych 358 W (Writing Intensive Version)

Psychology of Language - Psych 433

Reading and Reading Development - Psych 4351 or Psych 4352 (Writing Intensive Version)

Research Mentorship:

Prior approved **research mentorship** with a relevant faculty member. Students will be enrolled in Psych 444A/C (Independent Study for a Supplemental Concentration, Independent Study for a Concentration) which will include successful completion of an **APA-style research paper**, or Honors. (NOTE: At the research mentor's discretion, students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research.)

Relevant faculty research supervisors: Dr. Rebecca Treiman, Dr. David Balota, Dr. Lori Markson, Dr. Mitchell Sommers, and Dr. Kristin Van Engen

Concentration
Experimental Psychopathology

The concentration in *Experimental Psychopathology* allows students to acquire more advanced knowledge of the ways in which psychologists study mental disorders. Current research has demonstrated the importance of integrating psychological and biological variables in understanding the classification, etiology, and treatment of a wide variety of mental disorders, including schizophrenia, mood disorders, anxiety disorders, substance use disorders, and eating disorders. Students who pursue this concentration will develop a broadly based appreciation for conceptual and methodological issues that are central to research in psychopathology.

This concentration should be useful for students who are interested in careers in clinical psychology, psychiatry, social work, or related fields concerned with mental health services. It will be especially beneficial for those who plan to apply to research-oriented training programs.

Advisor/Coordinator: Professor Deanna Barch

Coursework:

Required:

Abnormal Psychology - Psych 354

Electives – must include two classes, at least one of which is at the 400 level: (Other courses may be added or approved by the coordinator.)

Genes, Environment, and Human Behavior - Psych 345

Drugs, Brain, and Behavior - Psych 374

Personality and Psychopathology - Psych 4541

Inside the Disordered Brain: Biological Bases of the Major Mental Disorders -
Psych 4765

Biopsychosocial Aspects of Eating Disorders and Obesity - Psych 4557

Biological Pathways to Psychopathology: From Genes and the Environment to
Brain and Behavior– Psych 4746 (previously known as Psych 4745)

Research Mentorship:

Prior approved **research mentorship** with a relevant faculty member. Students will be enrolled in Psych 444A/C (Independent Study for a Supplemental Concentration/ Independent Study for a Concentration) which will include successful completion of an **APA-style research paper**, or Honors. (NOTE: At the research mentor's discretion, students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research.)

Potential mentors include: Dr. Deanna Barch, Dr. Tom Oltmanns, Dr. Denise Wilfley, Dr. Josh Jackson, Dr. Tom Rodebaugh, Dr. Ryan Bogdan, and Dr. Renee Thompson

Concentration
Personality and Individual Differences

The concentration, **Personality and Individual Differences**, allows students to acquire deeper knowledge of how and why individuals differ from one another, and the ways in which individual (e.g., personality) and group (e.g., gender) differences influence behavior, emotion, experience, identity, and psychopathology. The core course for the concentration (Psych 353) considers personality more generally. The seminars explore in depth specific aspects of personality and individual differences, including biological bases of individual differences (i.e., genetics), interpersonal processes associated with personality, individual differences in emotion and emotion regulation, and personality pathology. Students have the opportunity to work in a laboratory that is conducting current research on these topics, allowing them to gain hands-on experience collecting and analyzing data on personality and individual differences.

Anyone interested in understanding individuals and the differences between them (including group differences) would benefit from an in-depth study of personality and individual differences. This concentration should prove especially useful for students who are considering careers in personality psychology, human resources, clinical psychology, management, social psychology, psychiatry, social work, and law.

Advisor/Coordinator: Professor Tammy English

Coursework

Required:

Psychology of Personality – Psych 353

Electives – must include 2 classes, at least one of which is at the 400 level: (Other courses may be added or approved by the coordinator.)

Genes, Environment, and Human Behavior – Psych 345

Understanding Emotions – Psych 3645

Positive Psychology: The Science of Happiness – Psych 367

Contemporary Topics in Social Psych – Psych 413

Personality and Psychopathology – Psych 4541

Emotion Regulation – Psych 4555

Research Mentorship:

Prior approved **research mentorship** with a relevant faculty member. Students will be enrolled in Psych 444A/C (Independent Study for a Supplemental Concentration/ Independent Study for a Concentration) which will include successful completion of an **APA-style research paper**, or Honors. (NOTE: At the research mentor's discretion, students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research.)

Potential mentors include: Dr. Tammy English, Dr. Josh Jackson, Dr. Randy Larsen, Dr. Tom Oltmanns, Dr. Mike Strube, and Dr. Renee Thompson

Supplemental Concentrations in Psychology
(for Majors in Psychological & Brain Sciences who Matriculated prior to Summer 2016)

(revised August 2018)

For a Supplemental Concentration, a minimum of 12 units of coursework in one of the approved supplemental concentrations, in addition to the requirements of the major, are required.

Completion of a Supplemental Concentration entails 12 units:

- (i) three courses (for a total of 9 units), at least one of which must be an advanced, 400-level class; and
 - (ii) a semester of research in an appropriate, approved lab, consisting of Psych 444A: *Independent Study for a Supplemental Concentration*, which requires successful completion of an APA-style research paper, or approved Honors project. In some cases a relevant internship or practicum would be an appropriate alternative to research experience.
- (NOTE: Students may be required to complete a preliminary semester [3units] of Psych 333, Independent Research, depending on the nature of the project intended for Psych 444A; the additional independent research is at the discretion of the research mentor, and will not be counted toward completion of the concentration requirements.)

None of the classes for a Supplemental Concentration may be used to fulfill any other aspect of the major (e.g., if the student completes, say, Cognitive, Psych 360, for the Supplemental Concentration, then that class would not fulfill the core BBC category), nor can any of the units for the Supplemental Concentration be used to count for any other major or minor. If two classes are in a core area of the Psychology major, however, then that core area will have been satisfied. For those pursuing the Psychological & Brain Sciences: Cognitive Neuroscience major, the Cognitive Neuroscience Concentration is not an option.

If an approved internship or practicum is relevant, then the internship or practicum would, however, be part of the 6 units of such credit that is permitted for the regular major, not part of the 9-10 additional units needed for the Supplemental Concentration.

Each Concentration has a P&BS faculty advisor/coordinator who will meet with interested students to help ensure successful and appropriate completion of the Concentration, and who serves as the liaison with the Undergraduate Committee. A student may pursue only one Concentration.

Please see Shelley Kohlman in Psychology room 207B to arrange a Concentration. Forms are available from Shelley, and completed forms must be returned to her in order for a Concentration to be considered officially “in-progress.”

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