The Department of Psychological Sciences combines the areas of study found in many psychology departments with those typically found in communication sciences departments. Our distinctive department offers undergraduate majors and minors in communication sciences and in psychology. We also offer a minor in Communication for Health Professionals. For graduate students, our Psychology Program offers accredited doctoral training in clinical psychology and experimental psychology within our Developmental, Cognitive and Affective Sciences Program. Our accredited Communication Sciences Program offers a master’s degree in speech-language pathology as well as a doctorate in communication sciences.

Communication Sciences
Cleveland Hearing & Speech Center, 11635 Euclid Ave, Room 333
Phone: 216.368.2470

The Department of Psychological Sciences offers courses of study in communication sciences leading to Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees. The Communication Sciences Program prepares undergraduate and graduate students to address broad issues of human communication processes and disorders through the application of cutting-edge technology and rigorous clinical training. We provide a comprehensive foundation in normal and disordered human communication and combine it with innovative interdisciplinary experiences that capitalize on the extensive resources of the university and the surrounding medical community. The department enjoys a particularly close relationship with Cleveland Hearing & Speech Center (http://www.chsc.org), an outstanding independent, nonprofit provider of care in speech-language pathology and audiology; in fact, the program is housed within the center.

Many students pursue undergraduate study in communication disorders as preparation for further study in other fields or in conjunction with study in other fields. For example, one can combine a major in communication disorders with a major in sociology or psychology or with a minor in gerontological studies. Professionals in human services fields such as medicine, social work, nursing, or education often work with persons with communication disorders. For students interested in academic or research careers, investigation in the field of communication disorders is often done alongside investigation of normal human behavior. For example, one might study the word learning of children with normal language as well as that of children with language impairment.

Psychology
103 Mather Memorial Building
Phone: 216.368.2686

The Psychology Program offers the combined advantages of a strong liberal arts college and a major university. There are classes in all major areas of the psychology field. We encourage close student-faculty relationships and offer many opportunities for individualized study and research.

Psychology is the study of the mind and behavior. The discipline embraces all aspects of the human experience: from the functions of the brain to the actions of neurons, from child development to care for the aged. In settings ranging from scientific research centers to mental health care services, "the understanding of behavior" is the enterprise of psychologists. An undergraduate major in psychology offers a student preparation for a wide variety of careers. Many majors find psychology to be an excellent preparation for such service-oriented professions as social work, counseling and guidance, special education, and management. Those who pursue graduate work in one of the many fields of psychology often seek positions in teaching and research or applied human services. In addition, the study of psychology provides a knowledge and an understanding of behavior that has applications in professions such as nursing, medicine, law, teaching, business, and public relations.

Department Faculty
Heath A. Demaree, PhD
(Virginia Tech)
Professor and Chair
Cerebral and psychophysiological bases of emotion

Jennifer L. Butler, PhD
(Case Western Reserve University)
Instructor
Social psychology

Lauren Calandruccio, PhD
(Syracuse University)
Associate Professor
Audiology

Angela Hein Ciccia, PhD
(Case Western Reserve University)
Associate Professor
Neuroscience of communication and communication disorders in adolescents/adults, with focus on traumatic brain injury

Arin M. Connell, PhD
(Emory University)
Associate Professor
Internalizing problems; coping skills during adolescence

Anastasia Dimitropoulos, PhD
(Vanderbilt University)
Associate Professor
Genetic syndromes involving intellectual disabilities; compulsive behavior in MR/DD; functional neuroimaging

Julie J. Exline, PhD
(State University of New York, Stony Brook)
Professor
Social relationships; transgression; moral and religious issues

Norah C. Feeny, PhD
(Bryn Mawr College)
Professor
Evaluation of interventions for anxiety (e.g., post-traumatic stress disorder) and mood disorders
Grover C. Gilmore, PhD  
(Johns Hopkins University)  
*Professor, Dean, Jack, Joseph and Morton Mandel School of Applied Social Sciences*  
Perceptual development and aging; visual information processing; memory; psychophysics

Robert L. Greene, PhD  
(Yale University)  
*Professor*  
Human memory and cognition

Barbara Lewis, PhD  
(Case Western Reserve University)  
*Professor*  
Familial and genetic bases of speech/language

Sarah Hope Lincoln, PhD  
(Harvard University)  
*Assistant Professor*  
Social factors implicated in the etiology, trajectory, and treatment of mental illness

Brooke Macnamara, PhD  
(Princeton University)  
*Associate Professor*  
Cognitive psychology, skill acquisition, learning, human performance, working memory, cognitive control, bilingualism, and communication

Kathryn (Kay) McNeal, MS, CCC-SLP  
(Purdue University)  
*Instructor*  
Speech-language pathology

Rachel Mulheren, PhD  
(James Madison University)  
*Assistant Professor*  
Physiology of swallowing and treatment of swallowing disorders

Jean Nisenboum, MA  
(Miami University)  
*Instructor*  
Dysphagia, Diagnosis of speech

James C. Overholser, PhD  
(Ohio State University)  
*Professor*  
Adult psychopathology; depression; suicide; personality disorders

Amy Przeworski, PhD  
(Pennsylvania State University)  
*Associate Professor*  
Anxiety disorders; emotion regulation; cultural factors in family interactions

Kathryn (Kyra) Rothenberg, PhD  
(Kent State University)  
*Instructor*  
Health communication

Sandra W. Russ, PhD  
(University of Pittsburgh)  
*Distinguished University Professor and Louis D. Beaumont University Professor*  
Creativity; affective development in children; personality assessment; coping mechanisms in children

Elizabeth J. Short, PhD  
(University of Notre Dame)  
*Professor*  
Cognitive psychology; applied developmental; learning disabilities

Lee A. Thompson, PhD  
(University of Colorado, Boulder)  
*Professor*  
Human behavior genetics; child development

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**Lecturer**

Patrice O. Carothers, MS, CCC-A  
(Ithaca College)  
*Part-time Lecturer*  
Fluency disorders

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**Adjunct Faculty**

Kelly Bhatnagar, PhD  
(Case Western Reserve University)  
*Adjunct Assistant Professor, The Emily Program*

Rachel Berkowitz, MA, CCC-SLP  
*Adjunct Instructor, Mayfield City School District*

Jane R. Buder-Shapiro, PhD  
*Adjunct Assistant Professor, private practice*

Barbara Choudhury, MA, CCC-SLP  
(Case Western Reserve University)  
*Adjunct Instructor, Cleveland Hearing & Speech Center*  
Speech-language pathology

Barbara Ekelman, PhD  
*Adjunct Associate Professor*  
Pediatrics

Thomas Ference, PhD  
*Adjunct Assistant Professor, Northcoast Behavioral Healthcare*

Michelle Foye, MA, CCC-SLP  
(Kent State University)  
*Adjunct Instructor, Cleveland Hearing & Speech Center*  
Speech-language pathology
Clare Gideon, PhD  
*Adjunct Assistant Professor*  
Robert Goldberg, PhD  
*Adjunct Professor; private practice*  
Bernard P. Henri, PhD  
(Northern University)  
*Adjunct Professor*  
Fluency disorders; professional issues in speech-language pathology; health care management  
Douglas Hicks, PhD  
(Vanderbilt University)  
*Adjunct Professor; Cleveland Clinic Foundation*  
Voice disorders  
Karen Kantzes, AuD, CCC-A  
(A. T. Stills University)  
*Adjunct Instructor; Cleveland Hearing & Speech Center*  
Audiology  
Susan Klein, PhD  
*Adjunct Associate Professor*  
Susan M. Knell, PhD  
*Adjunct Assistant Professor; private practice*  
Marilyn Malkin, PhD  
*Adjunct Assistant Professor; private practice*  
Michael Manos, PhD  
(University of Arizona)  
*Adjunct Assistant Professor*  
Lauren Masuga, MA, CCC-SLP  
(Miami University)  
*Adjunct Instructor; Cleveland Hearing & Speech Center*  
Speech-language pathology  
Anna Maria McLaughlin, PhD  
(Case Western Reserve University)  
*Adjunct Assistant Professor*  
Darlene Moenter-Rodriguez, PhD  
(Ohio State University)  
*Adjunct Assistant Professor; Louis Stokes Cleveland VA Medical Center*  
Auditory potentials  
Shirley Prok  
*Adjunct Instructor; Sign Language Instructor, Cleveland Hearing & Speech Center*  
Jes Sellers, PhD  
*Adjunct Assistant Professor; private practice*  
Harry Sivec, PhD  
*Adjunct Assistant Professor; Northcoast Behavioral Healthcare*  
Kevin Smith, PhD  
*Adjunct Assistant Professor; Northcoast Behavioral Healthcare*  
Sarah Spannagel, PhD  
*Adjunct Assistant Professor*  
Tira Stebbins, PhD  
*Adjunct Assistant Professor; Organization for Psychological Health*  
Kenneth Weiss, PhD  
*Adjunct Assistant Professor; Louis Stokes Cleveland VA Medical Center*  
Karen White, PhD  
*Adjunct Assistant Professor; Louis Stokes Cleveland VA Medical Center*  
Brigid Whitford, AuD, CCC-A  
(A.T. Stills University)  
*Adjunct Instructor; Cleveland Hearing & Speech Center*  
Audiology  
Lucene Wisniewski, PhD  
*Adjunct Assistant Professor; The Emily Program*  

### Secondary Faculty

Richard E. Boyatzis, PhD  
*Professor of Organizational Behavior, Weatherhead School of Management*  
Alan Castro, PhD  
*Senior Instructor; University Hospitals Case Medical Center*  
Howard Hall, PsyD, PhD  
*Associate Professor, School of Medicine/Rainbow Babies and Children’s Hospital*  
Rebecca Hazen, PhD  
*Assistant Professor, School of Medicine/Rainbow Babies and Children’s Hospital*  
Leslie Heinberg, Ph.D.  
*Professor; Cleveland Clinic Lerner College of Medicine of CWRU*  
Monica Hooper, PhD  
*Professor; MED - Division of General Medical Sciences*  
Anthony Jack, PhD  
(University College London)  
*Associate Professor; Department of Philosophy*  
Gunnur Karakurt, PhD  
*Assistant Professor; MED - Family Medicine*  
Cynthia Kubu, PhD  
*Professor; Psychiatry - Psychology, Cleveland Clinic*  
Carolyn Landis, PhD  
*Associate Professor, School of Medicine/Rainbow Babies and Children’s Hospital*  
Aarti Pyati, PhD  
(University of Chicago)  
*Adjunct Assistant Professor; University Counseling Services*  
Natalie Reiss, PhD  
*Clinical Instructor*  
Lynn Singer, PhD  
*Professor, School of Medicine/University Hospitals*  
Terry Stancin, PhD  
*Professor, School of Medicine/MetroHealth Medical Center*
Emeritus

Douglas K. Detterman, PhD
(University of Alabama, Tuscaloosa)

Louis D. Beaumont University Professor Emeritus

Donald K. Freedheim, PhD
(Duke University)

Professor Emeritus

Jane Kessler, PhD
(Western Reserve University)

Lucy Adams Leffingwell Professor Emerita

Milton E. Strauss, PhD
(Harvard University)

Professor Emeritus

Communication Sciences

Major in Communication Sciences
(Effective July 1, 2019 for those students who matriculate Fall 2019 or later)

The major in communication sciences leads to the Bachelor of Arts degree. For many students, a BA in communication sciences is a pre-professional degree in preparation for graduate study in speech-language pathology or audiology. The undergraduate course work emphasizes the basic processes and acquisition of normal communication in children and adults. Graduate study then focuses on the study of disordered communication. (Please see the description of the Integrated Graduate Studies Program below.)

Students pursuing the BA are required to take 45 credit hours of course work which includes study in communication sciences and disorders, psychology, and English/linguistics, as well as in statistics and research design. A recommended course sequence is shown below. Please note, however, that an individual student’s sequence may differ from this one. For example, undergraduate students may elect to take 400- or 500-level graduate courses with departmental/instructor permission.

Suggested Sequence of Required Courses for the Bachelor of Arts Degree (45 credits)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td>General Psychology I (PSCL 101)</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Communication Disorders (COSI 109)</td>
<td>3</td>
</tr>
<tr>
<td>Year Total:</td>
<td>3 3</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td>Phonetics and Phonology (COSI 211)</td>
<td>3</td>
</tr>
<tr>
<td>Multicultural Aspects of Human Communication (COSI 260)</td>
<td>3</td>
</tr>
<tr>
<td>Child Psychology (PSCL 230)</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to American Sign Language I (COSI 220)</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Methods in Psychology (PSCL 282)</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Linguistics (COSI 355)</td>
<td>3</td>
</tr>
<tr>
<td>Year Total:</td>
<td>9 9</td>
</tr>
</tbody>
</table>
Department of Psychological Sciences

Third Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Development (COSI 313)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anatomy and Physiology of Speech and Hearing Mechanism (COSI 325)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Research Design and Analysis (PSCL 375)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Speech and Hearing Science (COSI 321)</td>
<td>3</td>
<td></td>
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<tr>
<td>Year Total:</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

Fourth Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Clinical Practice in Speech-Language Pathology (COSI 352)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Introduction to Audiology (COSI 370)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Communication and Aging (COSI 345)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Year Total:</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units in Sequence: 45

* COSI 109 Introduction to Communication Disorders is offered in the fall and spring semesters. All other COSI courses are offered only one semester per year, as indicated above.

Departmental Honors

Juniors with a 3.0 overall grade point average and a 3.25 average in communication sciences are encouraged to apply to the honors program. The honors program consists of one three-credit course, COSI 395 Capstone and Honors Program, in which the student carries out an independent project in an area of interest, under the direction of a COSI faculty member. Satisfactory completion of the project qualifies the student to receive the Bachelor of Arts degree with departmental honors noted on the transcript. Admission to the honors program is by faculty approval.

The following are prerequisites to COSI 395 Capstone and Honors Program:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 201 Basic Statistics for Social and Life Sciences</td>
<td>3</td>
</tr>
<tr>
<td>or PSCL 282 Quantitative Methods in Psychology</td>
<td></td>
</tr>
<tr>
<td>PSCL 375 Research Design and Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional information is available from each student's academic advisor.

Integrated Graduate Studies

The Integrated Graduate Studies (IGS) Program (http://bulletin.case.edu/undergraduatestudies/gradprofessional/#accelerationtowardgraduatedegreetext) is intended for undergraduate students who are interested in obtaining a graduate degree in communication disorders (speech-language pathology). Qualified students may be accepted for admission to the School of Graduate Studies after completing 90 hours of undergraduate course work.

Typically, a master’s degree requires two additional years of study beyond the bachelor’s degree. Through the IGS Program, however, a student can complete an undergraduate degree in communication disorders and a master’s degree in communication disorders in five years. The recommended undergraduate sequence for students interested in the IGS Program is somewhat different from the recommended sequence presented above. Students should consult their academic advisor and the Office of Undergraduate Studies for additional information concerning IGS requirements.

Minor in Communication Sciences

The minor in communication sciences requires a minimum of 15 credit hours. It focuses on normal processes of speech, language, and hearing, as well as on the speech, language, and hearing disorders that result from breakdowns in these processes. Interested students should meet with an advisor for specific course requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSI 109</td>
<td>Introduction to Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>COSI 313</td>
<td>Language Development</td>
<td>3</td>
</tr>
<tr>
<td>COSI 325</td>
<td>Anatomy and Physiology of Speech and Hearing Mechanism</td>
<td>3</td>
</tr>
<tr>
<td>Two of the following courses:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>COSI 211</td>
<td>Phonetics and Phonology</td>
<td></td>
</tr>
<tr>
<td>COSI 220</td>
<td>Introduction to American Sign Language I</td>
<td></td>
</tr>
<tr>
<td>COSI 321</td>
<td>Speech and Hearing Science</td>
<td></td>
</tr>
<tr>
<td>COSI 345</td>
<td>Communication and Aging</td>
<td></td>
</tr>
</tbody>
</table>

Total Units 15

Communication for Health Professionals Minor

The Communication for Health Professionals minor offers introductory and advanced study in theoretical and practical applications of communication within a health context. It includes a variety of additional courses that students can choose according to their specific areas of interest. The course work is designed to appeal to students in such fields as pre-med, nursing, pre-law, public policy, public health, communication disorders, gerontological studies, nutrition, health management, and social work.

The minor requires 15 credit hours of course work, of which 9 credit hours come from required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSI 101</td>
<td>Introduction to Health Communication</td>
<td>3</td>
</tr>
<tr>
<td>COSI 109</td>
<td>Introduction to Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>COSI 340</td>
<td>Advanced Health Communication</td>
<td>3</td>
</tr>
<tr>
<td>Two of the following:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>COSI 200</td>
<td>Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COSI 260</td>
<td>Multicultural Aspects of Human Communication</td>
<td></td>
</tr>
<tr>
<td>COSI 280</td>
<td>Organizational Communication</td>
<td></td>
</tr>
<tr>
<td>COSI 332</td>
<td>Persuasion</td>
<td></td>
</tr>
<tr>
<td>COSI 345</td>
<td>Communication and Aging</td>
<td></td>
</tr>
</tbody>
</table>

Total Units 15

Undergraduate Programs

Major in Psychology

(Effective July 1, 2014 for those students who matriculate Fall 2014 or later)

An undergraduate major in psychology provides preparation for graduate training in psychology, medicine, social work, allied health professions,
education, business, computer science, or law. The undergraduate degree directly prepares students for careers that require knowledge and understanding of behavior, research design, and the ability to collect, analyze, and interpret data.

**Requirements for a Psychology Major**

Beginning with Allport (1937), scientific psychology has historically relied on two broad complementary traditions in the study of human behavior. The nomothetic or experimental approach focuses on identifying general laws about human behavior. The idiographic approach is concerned with the uniqueness of people and focuses on differences among individuals. Although all psychology courses apply both perspectives to specific topics in psychology, subsets of psychology courses rely more heavily on one or the other; therefore, the major requirements below ensure training that reflects a balance of nomothetic and idiographic approaches.

The psychology major requires a total of 30 credit hours consisting of PSCL 101 General Psychology I and PSCL 282 Quantitative Methods in Psychology; two nomothetic courses; and two idiographic courses. The remaining 12 credits of elective course work can be drawn from any combination of PSCL courses.

Psychology majors must complete 30 hours of course work in the department.

Take the 2 required core courses below (total of 6 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCL 101</td>
<td>General Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 282</td>
<td>Quantitative Methods in Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 2 of the following nomothetic courses (total of 6 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCL 315</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 352</td>
<td>Physiological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 353</td>
<td>Psychology of Learning</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 357</td>
<td>Cognitive Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 2 of the following idiographic courses (total of 6 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCL 230</td>
<td>Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 313</td>
<td>Psychology of Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 321</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 325</td>
<td>Psychotherapy and Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSCL 369</td>
<td>Adult Development and Aging</td>
<td>3</td>
</tr>
</tbody>
</table>

Select elective courses (any combination of additional PSCL courses, total of 12 credit hours)*

* Although not required for the Psychology Major, PSCL 375 (Research Design and Analysis) is a prerequisite for most of the senior capstone courses in psychology.

Psychology majors should work closely with their major advisors to customize the selection of required and elective courses to provide them with courses suited to their own individual career goals.

**Declaring a Major**

Students who wish to major in psychology must complete a Major Declaration form, available from the Office of Undergraduate Studies (http://www.case.edu/ugstudies), and then meet with the department chair, Dr. Heath Demaree, who will assign them an advisor and review the degree requirements.

**Special Programs for Psychology Majors**

**Psychology Honors Program:** Qualified psychology majors are encouraged to consider the department’s honors program, which leads to a BA with honors in psychology. The program’s purpose is to provide intensive, supervised research experience. Completion of the honors program also satisfies the SAGES capstone graduation requirement.

The program consists of PSCL 375 Research Design and Analysis, which students take in their junior year, and PSCL 395 Capstone and Honors Program, which they take as seniors. By the end of the senior year, students design and execute a research project, write it up in scholarly form, and present it in a public setting. Psychology majors who successfully complete PSCL 395, and who attain at least a 3.25 GPA in psychology course work and an overall GPA of at least 3.0, will graduate with honors in psychology.

The selection of a faculty advisor is an important part of the honors program. The first step is to identify a faculty member whose interests are as close as possible to the research area the student wishes to pursue. Students should contact a potential advisor as early as possible (junior year is recommended) and ask about the possibility of registering for PSCL 395. Each section of PSCL 395 is assigned to a specific faculty member, and registration is by permit only.

Because the honors program requires significant time and commitment, only psychology majors with a serious interest in the behavioral sciences should consider completing it.

**Integrated Graduate Studies Program:** The IGS Program enables qualified undergraduates to complete the academic work for a BA and MA degree in four years. Students accepted into the program must complete at least 30 credit hours of graduate course work during their senior year, plus a thesis or comprehensive exam, for a Master of Arts in General Psychology. The minimum standards for acceptance are:

- an overall GPA of 3.2
- completion of the Arts and Sciences General Education or SAGES Requirements and two semesters of physical education
- 90 semester hours of undergraduate credit (the last 60 hours must have been earned while the student was in residence at CWRU)
- completion of the psychology major requirements with at least a 3.2 GPA

Students should meet with their major advisor and with Dean Claudia Anderson in the Office of Undergraduate Studies during the fall semester of their junior year to receive pre-approval for eligibility for the IGS Program.

Students seeking admission to the IGS Program complete the same application process as those seeking admission to the graduate program in experimental psychology; instructions are provided on the department’s website (http://psychsciences.case.edu/graduate). However, prospective IGS Program students are not required to submit GRE scores. The application deadline each year is January 15.

Participation in the IGS Program does not preclude involvement in the department’s honors program. For more information, consult the IGS Program section of this bulletin (http://bulletin.case.edu/undergraduatestudies/gradprofessional/

#accelerationtowardgraduatedegree) or contact Dr. Heath Demaree.
Communication Sciences

Master of Arts

The principal goal of the Master of Arts program is to develop clinical scientists who are skilled in the management of individuals with speech and language disorders. The master’s program in speech-language pathology is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700. Upon successful completion of the Master of Arts degree, students will also meet the academic and clinical practicum requirements for certification by ASHA and licensure in the State of Ohio.

Degree requirements include completion of 42 credit hours of coursework and a clinical practicum in communication disorders. In addition, students must satisfactorily complete a clinical research project or write a master's thesis.

Clinical Opportunities in Speech, Language, and Hearing Disorders

The program is affiliated with, and located in, Cleveland Hearing & Speech Center (CHSC), a nonprofit agency that serves children and adults with communication disorders. CHSC serves as the primary training site for graduate students enrolled in clinical practice. Its personnel and facilities provide exceptional clinical experiences for students seeking clinical certification in speech-language pathology.

The program also draws on clinical resources in University Circle and the Greater Cleveland area. In addition to clinical practicum experiences at CHSC, graduate students complete at least two externships at sites including University Hospitals of Cleveland, Rainbow Babies and Children’s Hospital, MetroHealth Medical Center, Cuyahoga County Board of Mental Retardation and Developmental Disabilities, Cleveland Clinic Center for Autism, Legacy Health Services, and Western Reserve Speech and Language Partners.

Doctor of Philosophy

The Doctor of Philosophy is awarded in recognition of (1) mastery, at an advanced level, of a body of knowledge in the disciplines of communication sciences and speech-language pathology, and (2) a demonstrated ability to perform independent research and communicate the results of that research. With the major advisor, the student designs an individual plan of study based on his/her professional goals and previous experience. Doctoral students choose a content area (such as communication and aging, medically based speech disorders, or child language development and disorders) as their primary focus of study. However, they are also encouraged to enhance their scholarly preparation by completing course work outside of their primary content area.

In addition to course work within the department, doctoral students may choose courses from graduate programs in other departments of the College of Arts and Sciences, as well as from several professional schools at the university, including the School of Medicine (e.g., neuroscience, genetics), the Case School of Engineering (e.g., biomedical engineering), the School of Dental Medicine, the Weatherhead School of Management, and the Jack, Joseph, and Morton Mandel School of Applied Social Sciences.

Requirements for the doctoral program include course work, research rotations, a supervised classroom teaching experience, written and oral comprehensive examinations, and a dissertation.

- A minimum of 36 hours of course work is required, including 9 credit hours in statistics and research design and 3 credit hours of directed study and research. Fifteen credit hours in the primary content area are required.
- Two research rotations are required. One rotation is completed in the primary content area with the major advisor. The second rotation is completed with a faculty member other than the major advisor. The dissertation research is not included in either of the two research rotations.
- A supervised classroom teaching experience is completed under the guidance of a faculty member in the program.
- Written and oral examinations are taken after all course work and research rotations are completed.
- A dissertation prospectus is prepared under the guidance of a committee consisting of the dissertation advisor and two additional faculty members. A defense of the dissertation prospectus is required prior to commencing the dissertation study.
- An oral defense of the dissertation takes place at the end of the doctoral program.

Psychology

The Department of Psychological Sciences offers full-time programs leading to a PhD in clinical or experimental psychology. These programs give students a thorough grounding in basic areas of psychological fact and theory and prepare them for careers as researchers, teachers, and practitioners. The Master of Arts degree can be earned in the department as part of work toward a doctorate.

Clinical Psychology Program. The department’s program in clinical psychology, which has been approved by the American Psychological Association, emphasizes the scientist-practitioner model. Students participate in an integrated curriculum of basic and applied courses, research activities, and practicum and pre-internship placements. The program’s goal is to prepare students to make meaningful contributions to the science and profession of psychology by instructing them in broad applications of clinical skills and research methods.

Developmental, Cognitive, and Affective Sciences Program. Doctoral training in developmental, cognitive, and affective sciences prepares the student for an academic career in teaching and research. The program offers concentrations in developmental psychology, adulthood and aging, cognitive psychology, developmental disabilities research, and social psychology. Faculty members help students develop flexible programs of study, according to individual interests.

COSI Courses

COSI 101. Introduction to Health Communication. 3 Units.

An introductory examination of the influences associated with the functions of human life, communication processes, and research related to health and the health care industry from interpersonal, cultural, and organizational communication perspectives. The course will include a review of the history and development of health communication and the understanding and application of communication theories.
COSI 109. Introduction to Communication Disorders. 3 Units.
Forty-two million Americans have some type of communication disorder. How does a person with a communication disorder cope with the challenges of daily living? This course will examine the characteristics of communication disorders via first hand and fictionalized accounts in books, films, and simulated communication disorders experiences. Topics will include disorders of speech, language, and hearing in children and adults. Effects of communication disorders on families.

COSI 200. Interpersonal Communication. 3 Units.
Communication is a primary means of initiating, maintaining, and dissolving relationships. Managing interpersonal relationships is a human concern across several contexts. Interpersonal communication is a highly interactive course whereby participants investigate the foundations, processes, and issues associated with communication in relationships. The student will become sensitized to theories and processes via traditional lectures and textbook readings. The student is also expected to participate in group discussions. The result is a continuous dialogue with others about communication processes, and outcomes. The goal of this course is to provide a forum for both investigation and increased competence.

COSI 211. Phonetics and Phonology. 3 Units.
Theoretical and applied study of the speech sounds of language. The use of the international phonetic alphabet as a tool for characterizing normal and deviant sound patterns. The linguistic structure and function of speech sound systems of both the adult and developing child.

COSI 220. Introduction to American Sign Language I. 3 Units.
This course offers basic vocabulary training and conversational interaction skills in American Sign Language. Syntactic and semantic aspects of American Sign Language will be addressed.

COSI 221. Introduction to American Sign Language II. 3 Units.
This course incorporates non-verbal communication techniques, intermediate vocabulary, grammatical rules and conversational skills. Deaf culture and history is also an important part of the course. Students will focus on general aspects of conversational signs and nonverbal aspects of American Sign Language. Using Signing Naturally Units 7-12 as a guide; students will also incorporate the use of expressive and receptive skills in every class. The full immersion model will be applied in each class. Instruction and student participation will only be in ASL. Prereq: COSI 220.

COSI 260. Multicultural Aspects of Human Communication. 3 Units.
Introduces intercultural/interracial communication by discussing specific communication principles and by putting theory into practice by exploring differences in perception, and verbal and nonverbal communication messages. Course emphasizes relationship between communication, race, culture; nature of race and culture; and how they influence the communication process. Various theories and approaches to study of intercultural/interracial communication will be discussed, along with significant concepts, processes and considerations. Practical outcomes of intercultural/interracial encounters also will be discussed. Counts for CAS Global & Cultural Diversity Requirement.

COSI 280. Organizational Communication. 3 Units.
This course includes a review of the development of organizational communication theories and how application of theories enhances our understanding of various types of organizations. COSI 280 addresses the communication challenges faced by contemporary organizational leaders and members. Knowledge of the theories and development of analytical skills should improve students' chances for successful interactions in diverse organizational situations and cultures.

COSI 301. Professional Speaking. 3 Units.
This course is designed to introduce students to theories and practices and to develop their abilities to speak effectively in public. Students will develop skills in organization and presentation of ideas for public and conference forums, in critical listening, and in proper use of technology. Students demonstrate abilities via written assignments, skill building exercises, oral presentations, rhetorical analysis, and group projects. The expectations in this course include high levels of participation and interaction. This is a departmental seminar course with a focus on formal presentation in settings related to health care. This course will be beneficial to students planning professions in the health sciences where responsibilities include public instruction and exposition and for those preparing for capstone presentations in the Department of Psychological Sciences programs. Activities include: 1. Readings from McKerrow et al. text, 2. Class discussions related to communication competence in differing communication settings, 3. Application opportunities to give speeches, to work in groups, and relate with others in one-on-one situations, 4. Written assignments. Counts as SAGES Departmental Seminar. Prereq: Completion of 100 level first year seminar in USFS, FSCC, FSNA, FSSO, FSSY, or FSCS and either COSI 109 or PSCL 101.

COSI 302. Instrumental Measurements in Speech Sciences. 3 Units.
This course will provide hands on experience on techniques for instrumental measurements of speech and voice parameters, for applications to assessment and diagnosis of speech and voice disorders, to linguistic analysis of speech parameters (prosodic and segmental), and to speech production modeling. In particular, instrumental measures of voice parameters will be carried out by Electroglottography; evaluation of Voice Range Profile and of perturbation of frequency (jitter) and amplitude (shimmer) of the laryngeal waveform, by dedicated KayPentax software (Visi-pitch and Voice Range Profile) and by Praat software; spectrographic analyses will be carried out by Praat software, and articulographic measurements will be performed by an AG200 Electromagnetic Articulograph. Nasalance will be measured by a KapyPentax nasometer. Emphasis on use rather than theory. All instrumentation is available at the Case Speech Production Lab. Recommended preparation: COSI 211, COSI 321/421, and COGS 203, or bases in phonetics, linguistics and speech science; also Physics and Engineering instrumentation courses are good preliminaries to this course. Offered as COSI 302 and COSI 402.

COSI 305. Neuroscience of Communication and Communication Disorders. 3 Units.
The course focus is neuroanatomy and neurophysiology related to motor control and cognition, particularly aspects of cognition involved in language functions. Topics to be addressed include: principles of neurophysiology and neurochemistry; functional neuroanatomy of the central and peripheral nervous systems; neurological and neuropsychological assessment of communication; neurodiagnostic methods. In part, the course material will be presented in a problem-based learning format. That is, normal aspects of human neuroscience will be discussed in the context of neurological disorders affecting communication. COSI 305 is an elective for undergraduate students. COSI 405 is an introduction to COSI 557 and COSI 561, and a required course for graduate students. Offered as COSI 305 and COSI 405.

COSI 313. Language Development. 3 Units.
Language acquisition theory and stages of development of syntax, semantics, pragmatics, and phonology in children. Contributions of biological, social, cognitive and environmental factors to process of language development. Information on language variation in multicultural populations. Open to majors and non-majors. Recommended prerequisite: Child Psychology. Offered as COSI 313 and COSI 413.
COSI 321. Speech and Hearing Science. 3 Units.
The course will focus on the aspects of normal speech production and perception and hearing perception. The purpose of this course is to provide a foundation in normal aspects of oral communication that will prepare students for advance study in the assessment and management of disorders of speech and hearing perception. Topics to be covered include motor speech control, aeromechanics, basic acoustics, phonatory acoustics, speech and hearing acoustics, psychoacoustics, and speech and hearing perception. Recommended preparation: COSI 325. Offered as COSI 321 and COSI 421.

COSI 325. Anatomy and Physiology of Speech and Hearing Mechanism. 3 Units.
The course will focus on normal anatomy and physiology of the body systems involved in the processes of speech, language, hearing, and swallowing including the following: the auditory, respiratory, phonatory, articulatory, resonatory, and nervous systems. In part, the course material will be presented in a problem-based learning format. That is, normal aspects of human anatomy and physiology will be discussed in the context of the disorders that affect the processes of human communication and swallowing.

COSI 332. Persuasion. 3 Units.
This survey course explores the history, theories, and dynamics of persuasion. There is an extensive focus on theoretical models of attitude change. Persuasion also plays a strong role in everyday aspects of our culture. Along these lines, we will investigate persuasion activities in everyday life from compliance gaining to media campaigns. Learning is conveyed through lecture, activities, and observation of the student's everyday life. At the end of the semester, the astute student will be literate in a variety of persuasion strategies and dynamics.

COSI 340. Advanced Health Communication. 3 Units.
Various communication processes assume a central role in the acquisition and enactment of health care. This course examines communication activity across a broad range of health care contexts. Attention will be given to provider-client communication, communication, and ethical concerns, persuasive health promotion efforts, media impact on health, and basics in health communication methodology and research. Students will consider source, message, and receiver aspects of health communication as well as cultural and illness-specific issues. Prerequisite of COSI 101 for 300 - level only. Offered as COSI 340 and COSI 440. Prereq: COSI 101.

COSI 345. Communication and Aging. 3 Units.
The normal and abnormal psychobiological changes that occur during aging and their effects on communication are addressed, as are communicative interaction styles, disordered communication, and rehabilitation practices. Graduate students are given an opportunity to incorporate information from their own disciplines in a special project, where appropriate. Offered as COSI 345 and COSI 445. Counts as SAGES Departmental Seminar.

COSI 352. Introduction to Clinical Practice in Speech-Language Pathology. 3 Units.
Clinical assessment and teaching procedures as well as the role of research/theory in clinical practice. Procedures to observe, measure, analyze communication skills. Practical application through case studies. Students complete 25 hours of observation of speech/language assessment and intervention. Prereq: COSI 211 or COSI 313.

COSI 355. Introduction to Linguistics. 3 Units.
This course provides an introduction to linguistics, with application to clinical assessment, diagnosis and therapy of language disorders. In particular, the course provides an introduction to theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar.

COSI 357. Acquired Neurogenic Communication Disorders. 3 Units.
This course is designed to provide knowledge about the theoretical foundations, etiologies, and characterizations of acquired language-based and cognitive-communication disorders in adults. The organization of the course is designed so that we will discuss communication disorders typically associated with left hemisphere lesions (e.g., aphasia), right hemisphere lesions (e.g., RHD), frontal lobe lesions (e.g., traumatic brain injury) and mesial temporal lesions (e.g., dementia). This course is intended to provide students with a framework for considering communication disorders of diverse medical etiologies rather than specific impairment types. The course is meant to provide information that can be used as a foundation for a clinically applied course in acquired language disorders. The course will focus on critical thinking, professional presentation (both oral and written), and critical consumption of research. Instructor consent for COSI 457 only. Offered as COSI 357 and COSI 457. Prereq: COSI 109.

COSI 370. Introduction to Audiology. 3 Units.
Disorders of hearing, assessment of hearing; including behavioral and objective measures; intervention strategies; and identification programs. Offered as COSI 370 and COSI 470. Prereq: COSI 321 and COSI 325.

COSI 390. Independent Study. 1 - 6 Units.
Individual study, under the guidance of a faculty member, involving specific programs of reading, research and special projects.

COSI 395. Capstone and Honors Program. 3 Units.
Supervision in carrying out an independent research study in the student's area of interest. Offered every semester. Any student majoring in communication sciences (COSI) may take this course to fulfill the capstone requirement; qualified students may take this course to fulfill the capstone requirement AND to graduate with honors. During their Junior year, qualified COSI majors are encouraged to apply to the department's Honors Program, which leads to a B.A. with Honors. The program's purpose is to provide students with an intensive, supervised research experience in areas of their choice. The program consists of PSCL 375 and COSI 395 and begins in the junior year, when students receive instruction in research design and methodology. This provides the foundation for students to work under close supervision with a department faculty member during the senior year. At the end of the semester, the research project is written in scholarly form, and presented for consideration of graduation with Honors. Junior majors with a minimum 3.25 average in COSI major courses are a 3.0 overall GPA may apply. The Honors Program requires a great deal of work, and only students with a serious interest in behavioral sciences should apply. Counts as SAGES Senior Capstone. Prereq: (STAT 201 or PSCL 282) and PSCL 375.
COSI 402. Instrumental Measurements in Speech Sciences. 3 Units.
This course will provide hands on experience on techniques for instrumental measurements of speech and voice parameters, for applications to assessment and diagnosis of speech and voice disorders, to linguistic analysis of speech parameters (prosodic and segmental), and to speech production modeling. In particular, instrumental measures of voice parameters will be carried out by Electroglosstography; evaluation of Voice Range Profile and of perturbation of frequency (jitter) and amplitude (shimmer) of the laryngeal waveform, by dedicated KayPentax software (Visi-pitch and Voice Range Profile) and by Praat software; spectrographic analyses will be carried out by Praat software, and articulographic measurements will be performed by an AG200 Electromagnetic Articulograph. Nasalance will be measured by a KayPentax nasometer. Emphasis on use rather than theory. All instrumentation is available at the Case Speech Production Lab. Recommended preparation: COSI 211, COSI 321/421, and COGS 203, or bases in phonetics, linguistics and speech science; also Physics and Engineering instrumentation courses are good preliminaries to this course. Offered as COSI 302 and COSI 402.

COSI 405. Neuroscience of Communication and Communication Disorders. 3 Units.
The course focus is neuroanatomy and neurophysiology related to motor control and cognition, particularly aspects of cognition involved in language functions. Topics to be addressed include: principles of neurophysiology and neurochemistry; functional neuroanatomy of the central and peripheral nervous systems; neurological and neuropsychological assessment of communication; neurodiagnostic methods. In part, the course material will be presented in a problem-based learning format. That is, normal aspects of human neuroscience will be discussed in the context of neurological disorders affecting communication. COSI 305 is an elective for undergraduate students. COSI 405 is an introduction to COSI 557 and COSI 561, and a required course for graduate students. Offered as COSI 305 and COSI 405.

COSI 406. Academic English Proficiency: Speech Production. 3 Units.
In this module the provisional student will work in small groups with the instructor/s to develop new speech habits and patterns to improve production of spoken English for academic and professional success. Following successful completion of the course the student will demonstrate an improvement of 50% from baseline speech production scores, and demonstrate the ability to practice sound production independently to assure continued refinement over time. The course includes 90 minutes of small group instructions per week and a minimum of 50-60 minutes of daily practice. The student will be required to submit a minimum of 2 practice recordings per week for feedback. Students who successfully complete this course will demonstrate 50% improvement from baseline speech production scores.

COSI 413. Language Development. 3 Units.
Language acquisition theory and stages of development of syntax, semantics, pragmatics, and phonology in children. Contributions of biological, social, cognitive and environmental factors to process of language development. Information on language variation in multicultural populations. Open to majors and non-majors. Recommended prerequisite: Child Psychology. Offered as COSI 313 and COSI 413.

COSI 416. Academic English Proficiency Speech Production Module II. 3 Units.
In this module the provisional graduate student will work on refining speech production skills necessary for effective conversation and oral presentations in the academic and professional environments, through direct individualized instruction and individual and group practice. Each student enrolled will have an individualized plan and targets based on testing of spoken language at the word, sentence and conversational level. The focus in Module II will include: 1. Instruction on use of appropriate vocal measures such as volume, rate, intonation, rhythm and projection techniques. 2. Development of the skills necessary to analyze one's own speech production skills including articulation, volume, rate, and inflection consistent with Standard American English. 3. Practice of speech production skills in conversation and short presentations. Successful completion of this module will assist the student in improving speech production and intelligibility in areas of articulation, rate, and prosody, in conversation and formal presentations, leading to increased successful communication in the academic and professional environments. In this module each provisional graduate student will be involved in 90 minutes of class time weekly and a minimum of 50 minutes per day of structured individualized homework assignments. Classroom instruction will be provided in small groups with a maximum of 4 students per group. The successful student will demonstrate achievement of their individual targets which includes a minimum of 85% sentence level intelligibility in conversation and a rate of 140-160 wpm in presentations. If a student does not pass the course they have opportunity to work with the instructor and resubmit assignments until success levels are met.

COSI 421. Speech and Hearing Science. 3 Units.
The course will focus on the aspects of normal speech production and perception and hearing perception. The purpose of this course is to provide a foundation in normal aspects of oral communication that will prepare students for advance study in the assessment and management of disorders of speech and hearing perception. Topics to be covered include motor speech control, aeromechanics, basic acoustics, phonatory acoustics, speech and hearing acoustics, psychoacoustics, and speech and hearing perception. Recommended preparation: COSI 325. Offered as COSI 321 and COSI 421.

COSI 431. Medical Aspects of Developmental Disabilities: Theory and Practice. 2 Units.
The practicum provides structured training activities to help the student become proficient in birth to three assessment and intervention and infant and toddler development. This intensive training experience will provide skills that students need when working in early intervention settings. Guided observation of children and developmental domains, parent-child interaction, and family based assessment will be included.

COSI 440. Advanced Health Communication. 3 Units.
Various communication processes assume a central role in the acquisition and enactment of health care. This course examines communication activity across a broad range of health care contexts. Attention will be given to provider-client communication, communication, and ethical concerns, persuasive health promotion efforts, media impact on health, and basics in health communication methodology and research. Students will consider source, message, and receiver aspects of health communication as well as cultural and illness-specific issues. Prerequisite of COSI 101 for 300 - level only. Offered as COSI 340 and COSI 440.
COSI 443. Meta-Analysis of Communication Disorders Research Workshop. 1 Unit.
This course will guide students through the application of meta-analysis to the systematic literature review completed in COSI 444L to address a clinical question and will serve as the analysis and results section of the paper which will be used in partial fulfillment of the Plan B Master's Project requirements. Prereq: COSI 444 and COSI 444L.

COSI 444. Evidence Based Practice in Communication Disorders. 2 Units.
Evidence-based practice is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual clients. Having its origins in the fields of medicine and clinical epidemiology, EBP is now an essential component to clinical practice in speech-language pathology. The goal of COSI 444 is to instill in you a career-long desire to seek out high-quality relevant evidence pertinent to the clinical questions that affect your practice. To do this, you must first know how to find the evidence and evaluate the quality of evidence available. This course is intended to demystify the research process so that you can become critical consumers of the research literature in our field.

COSI 444L. Evidence Based Practice in Communication Disorders Lab. 1 Unit.
This course will guide students through the application of meta-analysis to the systematic literature review completed in COSI 444L to address a clinical question and will serve as the analysis and results section of the paper which will be used in partial fulfillment of the Plan B Masters Project requirements. Prereq: COSI 444.

COSI 445. Communication and Aging. 3 Units.
The normal and abnormal psychobiological changes that occur during aging and their effects on communication are addressed, as are communicative interaction styles, disordered communication, and rehabilitation practices. Graduate students are given an opportunity to incorporate information from their own disciplines in a special project, where appropriate. Offered as COSI 345 and COSI 445. Counts as SAGES Departmental Seminar.

COSI 452A. Graduate Clinical Practicum I: Case Management. 1 Unit.
Addresses professional issues in speech-language pathology including case management, clinical effectiveness, counseling and working with families from diverse backgrounds. Four to ten hours of clinic contact per week at the Cleveland Hearing and Speech Center. (Maximum of 2 credits.) Recommended preparation: COSI 352 and COSI 413.

COSI 452B. Graduate Clinical Practicum II: Professional Issues. 1 Unit.
Addresses professional issues in speech-language pathology including case management, managed health care, ethics and interviewing. Four to ten hours of clinic contact per week at the Cleveland Hearing and Speech Center. (Maximum of 2 credits.) Recommended preparation: COSI 352, COSI 413, COSI 452A, and COSI 453.

COSI 452C. Graduate Clinical Practicum III: Special Populations. 1 Unit.
Addresses professional issues in speech-language pathology including case management, special clinical populations, collaborating with other professionals, teaming, leadership, and use of technology. Fifteen to thirty hours of clinic contact per week at area skilled nursing facilities, hospitals, rehab centers, early intervention centers, centers for developmentally disabled, private practices, etc. (Maximum of 2 credits.) Recommended preparation: COSI 352, COSI 452A, COSI 452B, COSI 453, and COSI 456.

COSI 452E. Graduate Clinical Practicum V: Medical Speech Pathology. 1 Unit.
Addresses professional issues in speech-language pathology including case management, special clinical populations, collaborating with other professionals, documentation, managed health care, and use of technology. Fifteen to thirty hours of clinic contact per week at area skilled nursing facilities, hospitals. (Maximum of 2 credits.) Recommended preparation: COSI 352, COSI 452A, COSI 452B, COSI 452C, COSI 453, and COSI 456.

COSI 453. Articulation and Phonology Disorders. 3 Units.
Overview of normal speech sound development and characterization of children with speech sound disorders. Distinctions between phonology and articulation are drawn. Theoretical as well as assessment and treatment issues are addressed.

COSI 455. Fluency Disorders. 3 Units.
Stuttering and related disorders of rhythm and prosody in terms of the symptomatology, etiology, measurement, and treatment of nonfluent speaking behavior.

COSI 456. Child Language Disorders. 3 Units.

COSI 457. Acquired Neurogenic Communication Disorders. 3 Units.
This course is intended to provide students with a framework for considering communication disorders of diverse medical etiologies rather than specific impairment types. The course is meant to provide information that can be used as a foundation for a clinically applied course in acquired language disorders. The course will focus on critical thinking, professional presentation (both oral and written), and critical consumption of research. Instructor consent for COSI 457 only. Offered as COSI 357 and COSI 457.

COSI 470. Introduction to Audiology. 3 Units.
Disorders of hearing, assessment of hearing, including behavioral and objective measures; intervention strategies; and identification programs. Offered as COSI 370 and COSI 470. Prereq; COSI 325.
COSI 556. Language Disorders 2: Language and Literacy. 3 Units.  
This course focuses on research-based theories of reading, cognition, language, and learning disorders in the school-age and adolescent student. Language development of the older child during the school age and adolescent years will be reviewed. Topics include the development of metalinguistic skills, the expanding lexicon, narration and discourse, and advances in syntax and morphology. The relationship of spoken language to literacy will be discussed. The course will examine common language, literacy and learning disabilities during the school age years. The student will explore interventions for word skills, reading decoding and comprehension, oral expression, vocabulary, and written languages as they apply to the Speech Language Pathologist. Assessment and intervention strategies for the school-age child and adolescent with a language/learning disorder are included. The class format includes lectures, discussions of case studies, and experiential learning through the observation of therapy with the school age/adolescent student. Prereq: COSI 456.

COSI 557. Acquired Adult Language Disorders. 3 Units.  
A model relating communication impairment to activities of daily living and quality of life will serve as the study of acquired neurogenic communication disorders in adults. The focus will be on dementia, aphasia, and the communication disorders associated with traumatic brain injury and right hemisphere stroke. Knowledge about the biological basis of neurogenic communication disorders will be applied in discussion on assessment and intervention for these disorders. Prereq: COSI 405 or equivalent.

COSI 560. Medical Aspects of Speech Pathology I: Voice Disorders. 3 Units.  
Aspects of normal and abnormal voice production, evaluation and management of various voice and resonance disorders.

COSI 561. Med Aspects of Speech Path II: Neuromotor and Craniofacial Anomalies. 4 Units.  
Speech disorders resulting from conditions acting on motor speech production including dysarthria and apraxia will be discussed. The speech production system, diseases and acquired and congenital neuropathological conditions that affect motor process and resulting speech disorders of phonation, articulation, resonance and prosody will be reviewed. Also covered will be the speech, language and hearing disorders stemming from craniofacial anomalies; cleft lip and palate. Principles and methods of assessment and treatment within an interdisciplinary rehabilitation framework will be reviewed for both types of disorders. Prereq: COSI 321 or COSI 421 and COSI 405 or equivalent.

COSI 562. Medical Aspects of Speech Pathology III: Dysphagia. 3 Units.  
Course relates to medical speech-language pathology and includes analysis of clinical problems involving dysphagia in high risk populations. Course focus is on the anatomy and physiology of the normal swallow, dysphagia, early identification and prevention, the clinical swallow assessment, instrumental assessment and intervention in pediatric and adult populations.

COSI 563. Medical Aspects of Speech Path IV: Pediatric Dysphagia. 3 Units.  
This course focuses on swallowing and dysphagia in infants and children. Topics include typical development of anatomy and physiology of pediatric swallowing, evaluation of pediatric swallowing function, treatment modalities, and clinical populations. Prereq: COSI 562.

COSI 580. Aural Rehabilitation. 3 Units.  
The effects of hearing impairment, especially related to speech perception and language processing. Remediation and intervention strategies for hearing impaired children and adults, including speech reading, auditory training, and the use of hearing aids.

COSI 600. Special Problems and Topics. 1 - 3 Units.  
Topics and instructors by arrangement of the department chair.

COSI 601. Directed Study and Research. 1 - 6 Units.  
Individual study and research under the direction of a faculty member. 

COSI 651. Thesis M.A.. 1 - 6 Units.  
(Credit as arranged.) Prereq: Predoctoral research consent or advanced to Ph.D. candidacy milestone.

PSCL Courses  
PSCL 101. General Psychology I. 3 Units.  
Methods, research, and theories of psychology. Basic research from such areas as psychophysiology, sensation, perception, development, memory, learning, psychopathology, and social psychology.

PSCL 102. General Psychology II. 3 Units.  
The applications of psychological research in normal problems of adjustment. Topics include: coping with anxiety, romance and marriage, and interpersonal behavior.

PSCL 230. Child Psychology. 3 Units.  
Basic facts and principles of psychological development from the prenatal period through adolescence. Recommended preparation: PSCL 101.

PSCL 282. Quantitative Methods in Psychology. 3 Units.  
The theory and application of basic methods used in the analysis of psychological data. Not available for credit to students who have completed STAT 201 or ANTH 319. Counts for CAS Quantitative Reasoning Requirement.

PSCL 313. Psychology of Personality. 3 Units.  
The development and organization of personality; theories of personality and methods for assessing the person; problems of personal adjustment.

PSCL 315. Social Psychology. 3 Units.  

PSCL 317. Health Psychology. 3 Units.  
Examines psychological processes that affect physical health. Covers the physiological factors affecting the immune system, chronic physical disorders, pain, compliance with prescribed medical treatments, the effects of stress and coping, the effects of the patient-physician interaction, and the psychological aspects of the hospital and the health care systems. Recommended preparation: PSCL 101.

PSCL 321. Abnormal Psychology. 3 Units.  
PSCL 323. Consumer Psychology. 3 Units.
Examines psychological processes that affect buyer behaviors. Covers the basic psychological processes of purchasing behavior, marketing choices that influence consumer behaviors, and post-purchase behaviors such as brand loyalty. Explores behavior across a number of domains, including motivation, attention, persuasion, comprehension, automatic decision making, and biases. Recommended preparation: PSCL 101.

PSCL 325. Psychotherapy and Personality Change. 3 Units.
Three methods of psychotherapy (behavioral, psychoanalytic, and client-centered) are discussed. The therapy techniques and the manner by which personality change is effected are examined. Recommended preparation: PSCL 101.

PSCL 329. Adolescence. 3 Units.
Psychological perspectives on physical, cognitive, and social development. Recommended preparation: PSCL 101.

PSCL 334C. Seminar and Practicum: Hospitalized Children. 3 Units.
Supervised field placement and attendance at staff conferences in various child and adolescent settings. Regular seminar meetings. Prereq: PSCL 230.

PSCL 335C. Seminar and Practicum: Hospitalized Child. 3 Units.
Supervised field placement and attendance at staff conferences in various child and adolescent settings. Regular seminar meetings. Prereq: PSCL 230 and Junior or Senior Status.

PSCL 338. Seminar and Practicum in Adolescents. 3 Units.
Supervised field placement and attendance in early childhood, child and adolescent settings including preschools, schools, hospitals, and neighborhood centers. This course is an elective. Recommended preparation: PSCL 101. Offered as EDUC 338, PSCL 338 and SOCI 338.

PSCL 344. Developmental Psychopathology. 3 Units.
This course will focus on the interplay of biological, psychological, familial, and social determinants of disorders ranging from autism to delinquency and bulimia. Recommended preparation: PSCL 230 or PSCL 321.

PSCL 350. Behavior Genetics. 3 Units.
Examines the impact of both nature and nurture on human behavior. Basic quantitative genetic methodology will be covered. Current family, twin and adoption studies in the areas of personality, intelligence, alcoholism, criminality, and psychopathology will be reviewed. Recommended preparation: PSCL 101. Offered as PSCL 350 and PSCL 450.

PSCL 352. Physiological Psychology. 3 Units.
This course is designed to teach the fundamentals of neural communication and central nervous system structure. Special attention is placed on common neurological illnesses and their psychopharmacological treatments. Neural systems underlying sensory/ perceptual, motor, and higher-order cognitive processes are also explored. Offered as PSCL 352 and PSCL 403. Prereq: PSCL 101.

PSCL 353. Psychology of Learning. 3 Units.
The basic methods in the study of learning. The major theories proposed to account for the learning process. Development of the fundamental concepts and principles governing the learning process in both humans and lower animal. Recommended preparation: PSCL 101.

PSCL 355. Sensation and Perception. 3 Units.

PSCL 357. Cognitive Psychology. 3 Units.

PSCL 359. Adult Development and Aging. 3 Units.
An overview of concepts and research relating to adult development and aging. The lifespan perspective will be used in examining major developmental paradigms. Personality and cognitive lines of development will be traced across the lifespan. Data from both longitudinal and cross-sectional studies will be analyzed. Both normal and pathological aging will be discussed. Special emphasis will be given to areas of cognitive deterioration in aging. Implications for optimal adult development and aging will also be discussed.

PSCL 370. Human Intelligence. 3 Units.
Survey of individual differences in human intellect including construction and administration of intelligence tests, theories and models of intelligence, and the role of heredity and environment in intelligence and the development of intelligence. This course will also examine the relationships of cognitive abilities to intelligence and human to artificial intelligence. Recommended preparation: PSCL 101.

PSCL 375. Research Design and Analysis. 3 Units.
Conceptual and methodological issues confronted by the behavioral scientist conducting research. Major experimental designs and statistical procedures. Intuitive understanding of the mathematical operations. Majors planning to apply to graduate school in Psychology are strongly encouraged to complete this course. Counts as SAGES Departmental Seminar. Prereq: PSCL 101 and (PSCL 282 or ANTH 319 or STAT 201 or STAT 201R).

PSCL 379. Neurodevelopmental Disabilities. 3 Units.
Ways in which neurobehavioral development can go awry, the causes of such deviations, and their consequences. The course builds on basic psychological and neuroscience concepts to explore the manner in which developmental disabilities occur, ways of preventing disabilities, and approaches to ameliorating and managing disabling conditions. Recommended preparation: PSCL 101 and PSCL 230. Offered as PSCL 379 and PSCL 479.

PSCL 382. Psychological Measurement. 3 Units.
PSCL 387. Psychology Capstone Seminar: Genocide and Mass Atrocities. 3 Units.
Human cruelty, ethnopolitical conflict, war, terrorism, and genocide continues presently to create destruction and suffering throughout the world. Psychology has an important role in contributing to an understanding of individual or group characteristics, and specific circumstances and psychological processes that lead individuals and groups to commit either acts of destruction or acts of goodness. This course will provide an overview of the psychological literature on genocide, mass atrocities and violence. Most people are aware of the Holocaust and less so regarding other past genocides. We will examine and discuss past genocides (e.g. the Holocaust and Rwanda among others) as well as present genocides and mass violence (e.g. Darfur, the mass killings of Yezidis, and other examples of violence, torture, and the mistreatment of human beings). The path from prejudice and hatred to mass violence will be explored. We will address rescuing behaviors and resistance during genocide and mass atrocities, as well as the impact of bystander behavior on human violence. In addition, we will explore how people can heal from the trauma of past victimization and the role of psychologists in this undertaking. Another important topic to be examined focuses on how an identity can be formed when one is a descendant of a genocide/mass atrocity survivor or perpetrator. We will also address how the past is remembered or forgotten. This course is a reading and writing intensive course. Counts as SAGES Senior Capstone. Prereq: PSCL 101 and at least 15 credit hours previously completed in PSCL.

PSCL 388. Human Sexual Behavior. 3 Units.
Sex is approached as a form of personal and interpersonal behavior. A broad range of theories from social psychology will be used to explain human sexual behavior, and these will be evaluated by using facts and findings from recent research studies. Topics include sexual relationships, gender differences, promiscuity, rape and coercion, finding and choosing sex partners, sexual risk-taking, harassment, sexual identity and orientation, cultural influences and differences, evolution of sexual motivations, prostitution, pornography, and love. Prereq: PSCL 101 and PSCL 315.

PSCL 389. Emotion and Emotion Regulation. 3 Units.
This course will focus on academic research associated with emotional processes and emotion regulation. Specifically, we will answer questions like: What are emotions, and why are they important? How are emotions communicated, and how do researchers measure them? How do emotions influence one’s thinking ability, and visa-versa? What is emotion regulation? How do people differ in terms of their overall happiness and well-being, the degree to which they seek/avoid positive/negative experiences, and how they try to control their emotions? And what brain mechanisms are involved in emotional processing and emotion regulation? This course is also intended to help students read research in a thorough, critical manner, which may have a positive impact on students considering an academic career. Prereq: PSCL 101 and PSCL 352.

PSCL 390. Seminars in Psychology. 1 - 3 Units.
Surveys of special subject areas. Topics vary in response to faculty and student interests. Small group discussion. Prerequisite depends on content.

PSCL 391. Psychology Capstone Research Using Data Archives. 3 Units.
In this course, each student will derive and address a research question by identifying and analyzing archived publicly available data. Successful completion of the course will require: training in ethical research involving human participants; a critical review of the literature on a specific area of psychology with the goal of creating a research question; identification of a set of variables in a publicly available data set that can be used to address the research question, a final written research report in a format acceptable for publication in a psychological research journal, and an oral presentation of the research. Counts as SAGES Senior Capstone. Prereq: PSCL 101 and PSCL 282 or equivalent (ANTH 319, STAT 201), and PSCL 375.

PSCL 392. Capstone: Positive Psychology and Character Strengths. 3 Units.
This seminar-based course is designed to provide a senior capstone experience in the area of positive psychology and character strengths. Students will focus on one specific character strength or positive psychology concept for the class project. The project will include a literature review and critique as well as a self-reflective component. Students will present their projects in two formats: a classroom-based lecture presentation and a literature review (15-20 pages). Class periods will include a blend of lecture, discussion, and student presentations. All students will be assigned to small groups for classroom-based discussions. Assignments are designed to help students develop their projects and will focus on self-reflection, literature review skills, and effective strategies for writing, presenting, and evaluating the work of others. Counts as SAGES Senior Capstone. Prereq: Students must be seniors.

PSCL 393. Experimental Child Psychology. 3 Units.
The development of behavior from birth to adolescence. Growth of basic processes such as perception, learning, memory, intelligence, and language in the light of current theoretical models. Recommended preparation: PSCL 101.

PSCL 394. Psychology Capstone Seminar: Current Problems. 3 Units.
This seminar course will revolve around the identification and critical examination of current problems in society. Insights gained from psychological research will be applied to better understand these problems. Successful completion of the course will require critical analysis of published research, integration of information from different areas of psychology and from different disciplines, an oral presentation, and a final written research report including a literature review. Counts as SAGES Senior Capstone. Prereq: PSCL 375.

PSCL 395. Capstone and Honors Program. 3 Units.
Supervision in carrying out an independent research study in the student’s area of interest. Counts as SAGES Senior Capstone. Prereq: PSCL 375.

PSCL 396. Capstone: Anxiety and Depression: Symptoms, Etiology, and Treatment. 3 Units.
Satisfies SAGES Capstone requirement: A research-based and writing-intensive presentation of current knowledge regarding the symptoms, etiology, and treatment of anxiety disorders and mood disorders. Counts as SAGES Senior Capstone. Prereq: PSCL 101 and PSCL 375.

PSCL 397. Independent Study. 1 - 3 Units.
Individual study involving specific programs of reading, research, and special projects. Prereq: PSCL 101.
PSCL 398C. Child Policy Externship and Capstone. 3 Units.
Exterships offered through CHST/ANTH/PSCL 398C give students an opportunity to work directly with professionals who design and implement policies that impact the lives of children and their families. Agencies involved are active in areas such as public health, including behavioral health, education, juvenile justice, childcare and/or child welfare. Students apply for the externships, and selected students are placed in local public or nonprofit agencies with a policy focus. Each student develops an individualized learning plan in consultation with the Childhood Studies Program faculty and the supervisor in the agency. Offered as CHST 398C, ANTH 398C, and PSCL 398C. Counts as SAGES Senior Capstone. Prereq: CHST 301.

PSCL 399. Evaluating Psychological Information. 3 Units.
This course is a capstone designed to encourage advanced psychology students to review the knowledge they have gained throughout their coursework and to evaluate new information using this knowledge. While many core classes focus on learning the foundations of psychology through textbook readings and lectures, this class is a seminar that focuses on engaged and active participation in discussions and assignments during class. Class work will focus on evaluating psychological research, considering psychology as a field of scientific inquiry, understanding misconceptions about psychology and psychological findings, and exercising critical thinking skills. The course will culminate for each student in a unique SAGES capstone project, including a final written report and a public presentation. Independent work outside of the classroom will focus mostly on the capstone project, though you will also complete some class readings and reflection papers. Counts as SAGES Senior Capstone. Prereq: PSCL 375.

PSCL 402. Cognition and Information Processing. 3 Units.
Aspects of cognition beyond the area of sensation and perception, involving symbolic processes, especially problems of meaning, conceiving, reasoning, judging, and thinking.

PSCL 403. Physiological Psychology. 3 Units.
This course is designed to teach the fundamentals of neural communication and central nervous system structure. Special attention is placed on common neurological illnesses and their psychopharmacological treatments. Neural systems underlying sensory/perceptual, motor, and higher-order cognitive processes are also explored. Offered as PSCL 352 and PSCL 403. Prereq: Graduate Standing or Requisites Not Met permission.

PSCL 404. Learning Theory. 3 Units.
The research literature in learning; theoretical formulations of contemporary learning theorists. Limited to graduate students.

PSCL 405. Personality Theory. 3 Units.
General problems and systematic points of view in the analysis of personality. Limited to graduate students.

PSCL 407. Research Design and Quantitative Analysis I. 3 Units.
Intermediate research design and statistical analysis used in psychological research. Statistical inference from single variables, elementary principles of probability, correlation and regression. Recommended preparation: PSCL 282.

PSCL 408. Research Design and Quantitative Analysis II. 3 Units.

PSCL 409. Advanced Social Psychology. 3 Units.
This seminar-based course provides a broad, graduate-level overview of the field of social psychology. The course draws on theory and basic research in social and personality psychology to teach basic principles of human nature that can be applied to daily life, research, and clinical/applied work. Major topic areas include the self (e.g., self-regulation; self-evaluation), social cognition and relationships (e.g., social comparison; transgression), and group processes (e.g., social influence; prejudice). The interface between social and personality psychology will also receive attention.

PSCL 410. Developmental Psychology. 3 Units.
The research literature and theoretical formulation in the area of developmental psychology. Limited to graduate students.

PSCL 412. Measurement of Behavior. 3 Units.

PSCL 418. History and Systems. 3 Units.
Historical antecedents of modern psychology.

PSCL 424. Clinical Interviewing. 3 Units.
Introduction to diagnostic and therapeutic interviewing.

PSCL 425. Methods of Assessment I. 3 Units.
Limited to graduate students in clinical psychology. Recommended preparation: Graduate standing in psychology with department permission.

PSCL 426. Methods of Assessment II. 3 Units.
Methods of psychological assessment, emphasizing personality and family function in childhood and adulthood. Recommended preparation: Limited to Grad students in Clinical Psychology. Requires approval of the Director of Clinical Training.

PSCL 429. Practicum in Assessment I. 1 Unit.

PSCL 430. Practicum in Assessment II. 1 Unit.
Recommended preparation: Approval of the Director of Clinical Training or concurrent enrollment in PSCL 426.

PSCL 431. Supervised Field Placement Year 2. 0 Unit.
Supervised training in clinical psychology in agency, hospital, or university settings. Required in Fall and Spring terms of all second year students in the clinical psychology training program. Recommended preparation: PSCL 425, PSCL 426.

PSCL 444. Developmental Psychopathology. 3 Units.
This course will focus on the interplay of biological, psychological, familial, and social determinants of disorders ranging from autism to delinquency and bulimia.

PSCL 450. Behavior Genetics. 3 Units.
Examines the impact of both nature and nurture on human behavior. Basic quantitative genetic methodology will be covered. Current family, twin and adoption studies in the areas of personality, intelligence, alcoholism, criminality, and psychopathology will be reviewed. Recommended preparation: PSCL 101. Offered as PSCL 350 and PSCL 450.
PSCL 451. Special Topics in Psychology. 1 Unit.
These 1 credit mini-courses should provide enjoyable opportunities for students to explore interesting material related to clinical psychology that has not been covered in other required courses. A primary goal is to stimulate interest and discussion in the area. Thus, students will not be expected to write term papers or take any exams. In terms of background reading, students should be provided with roughly one journal article per hour of class meeting. The course is graded pass/no pass, and grading will be based on class attendance and class participation.

PSCL 453. Seminars in Psychology. 1 - 3 Units.
A special problem or topic. Content varies with student and faculty interest. Recent offerings: creative thinking in research, community psychological, evaluation of community processes, experimental and computer methods, consultation, and psychoanalytic ego psychology.

PSCL 469. Psychology of Aging. 3 Units.
Normal psychological development in later life; psychological development in the oldest old; definitions and assessment of successful aging.

PSCL 479. Neurodevelopmental Disabilities. 3 Units.
Ways in which neurobehavioral development can go awry, the causes of such deviations, and their consequences. The course builds on basic psychological and neuroscience concepts to explore the manner in which developmental disabilities occur, ways of preventing disabilities, and approaches to ameliorating and managing disabling conditions. Recommended preparation: PSCL 101 and PSCL 230. Offered as PSCL 379 and PSCL 479.

PSCL 497. Graduate Independent Study. 1 - 9 Units.
Independent research and reading programs with individual members of the faculty.

PSCL 501. Seminar: Pediatric Psychology. 1 - 3 Units.
Seminar on current research topics, research design and methodological issues related to pediatric psychology. Introductory lectures provide an overview of research populations, methods, and practical issues appropriate to research with pediatric populations.

PSCL 502. Seminar: Pediatric Psychology. 1 - 3 Units.
Seminar examining specific topics in pediatric psychology. Topics will deal with issues of infant development. Infants at risk for disability, neuropsychology and learning disabilities, and childhood psychopathology. Recommended preparation: Limited to Graduate students in Psychology department.

PSCL 510. Psychology and Diversity. 3 Units.
Diversity and multiculturalism in psychological theory, research and practice.

PSCL 524. Advanced Psychopathology. 3 Units.
Theoretical issues and current research data bearing on major patterns of psychological disturbance.

PSCL 525. Ethical and Professional Issues in Psychology. 3 Units.
Consideration of legal and ethical principles in research and practice in clinical psychology and contemporary controversies in professional psychology. Recommended preparation: Graduate standing in Psychology.

PSCL 529A. Practicum in Intervention I: Behavior Therapy. 1 Unit.
Recommended Preparation: Graduate standing in clinical psychology.

PSCL 529C. Practicum in Intervention I: Psychodynamic. 2 Units.
Recommended preparation: Graduate standing in clinical psychology.

PSCL 530A. Practicum in Intervention II: Behavior Therapy. 1 Unit.
Recommended preparation: Graduate standing in clinical psychology.

PSCL 530C. Practicum in Intervention II: Psychodynamic. 1 Unit.
Recommended preparation: Graduate standing in clinical psychology.

PSCL 531A. Seminar in Intervention I: Behavior Therapy. 2 Units.
Theoretical issues and research on psychological interventions. Recommended preparation: Graduate standing in clinical psychology.

PSCL 531C. Seminar in Intervention I: Psychodynamic. 2 Units.
Theoretical issues and research on psychological interventions. Recommended preparation: Graduate standing in clinical psychology.

PSCL 532A. Seminar in Intervention II: Behavior Therapy. 2 Units.
Theoretical issues and research on psychological interventions. Recommended preparation: Graduate standing in clinical psychology.

PSCL 532C. Seminar in Intervention II: Psychodynamic. 2 Units.
Theoretical issues and research on psychological interventions. Recommended preparation: PSCL 531C and graduate standing in clinical psychology.

PSCL 534. Advanced Psychotherapy. 3 Units.
The goals of this course are: to provide an overview of a range of psychotherapeutic approaches, primarily those that address anxiety and depressive disorders, and to discuss the evidence for and implementation of such therapy approaches. Prereq: Must be enrolled in PhD Psychology with a concentration in Clinical Psychology or Requisites Not Met permission.

PSCL 535. Child and Family Intervention. 2 Units.
A course for advanced clinical graduate students that covers psychodynamic and cognitive behavioral approaches for working with children and adolescents and systems approaches for working with families.

PSCL 536. Advanced Child and Family Intervention. 2 Units.
A course for advanced clinical graduate students that covers evidence-based approaches to child and family therapy as well as parent training. Special emphasis on empirically guided treatment planning and outcome evaluation.

PSCL 537. Child and Family Case Seminar I. 1 Unit.
Clinical graduate students in child and family field placements present and receive group supervision on ongoing cases.

PSCL 538. Child and Family Case Seminar II. 1 Unit.
Clinical graduate students in child and family field placements present and receive group supervision on ongoing cases.

PSCL 539. Supervised Field Placement Year 3. 0 Unit.
Supervised training in clinical psychology in agency, hospital, or university settings. Required in Fall and Spring terms of all third year students in the clinical psychology training program. Recommended preparation: PSCL 531A, PSCL 532A.

PSCL 540. Supervised Field Placement Year 4. 0 Unit.
Supervised training in clinical psychology in agency, hospital, or university settings. Required in Fall and Spring terms of all fourth year students in the clinical psychology training program. Recommended preparation: PSCL 531A, PSCL 532A.

PSCL 601. Special Problems. 1 - 18 Units.
(Credit as arranged.)

PSCL 651. Thesis M.A.. 1 - 18 Units.
(Credit as arranged.)
PSCL 700. Internship. 0 Unit.
Full-time predoctoral internship in clinical psychology. Required of all students in clinical psychology program. Registration requires written consent of director of clinical psychology training and must be for one calendar year.

PSCL 701. Dissertation Ph.D.. 1 - 9 Units.
(Credit as arranged.) Prereq: Predoctoral research consent or advanced to Ph.D. candidacy milestone.