

Status: NEW

PROGRAM REQUEST
Cognitive Science Minor

Last Updated: Soave, Melissa A
05/31/2012

Fiscal Unit/Academic Org Arts & Sciences Administration - D4305
Administering College/Academic Group Arts and Sciences
Co-administering College/Academic Group
Semester Conversion Designation Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
Current Program/Plan Name
Proposed Program/Plan Name Cognitive Science Minor
Program/Plan Code Abbreviation
Current Degree Title

Credit Hour Explanation

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		25	16.7	15	1.7
Required credit hours offered by the unit	Minimum				
	Maximum				
Required credit hours offered outside of the unit	Minimum				
	Maximum				
Required prerequisite credit hours not included above	Minimum				
	Maximum				

Program Learning Goals

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

- Program Learning Goals**
- Expose students to cognitive science and several of its constituent disciplines.
 - Provide students with interdisciplinary learning and research environments
 - Expose students to cognitive science research at Ohio State and nationally

Assessment

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? No

Program Specializations/Sub-Plans

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

Pre-Major

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Does this Program have a Pre-Major? No

Attachments

- Cognitive Science Minor-Transition to Semesters.pdf
(Program Proposal. Owner: Soave, Melissa A)
- Cognitive Science Minor_Quarter Advising Sheet.pdf
(Quarter Advising Sheet(s). Owner: Soave, Melissa A)

Comments

Workflow Information

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Does this Program have a Pre-Major? No

Attachments

- Cognitive Science Minor-Transition to Semesters.pdf
(Program Proposal. Owner: Soave, Melissa A)
- Cognitive Science Minor_Quarter Advising Sheet.pdf
(Quarter Advising Sheet(s). Owner: Soave, Melissa A)

Comments

Workflow Information

Cognitive Science Minor

Program Rationale

The goal of the Cognitive Science Minor is to offer students studying in a variety of fields opportunities to get grounding in Cognitive Science -- an interdisciplinary study of the mind that incorporates psychological, philosophical, linguistic, biological, and artificial intelligence approaches to how knowledge is acquired, processed, and represented in the mind. The minor in cognitive science consists of at least five courses totaling 15 credit hours.

Program Learning Goals

1. Expose students to cognitive science and several of its constituent disciplines.
2. Provide students with interdisciplinary learning and research environments.
3. Expose students to cognitive science research at Ohio State and nationally

List of Semester Courses

Core

Psychology/CSE/ Linguistics/Philosophy (cross-listed) 5612: Introduction to Cognitive Science (3) – UG course

Biological Foundations

Psychology 3313: Introduction to Behavioral Neuroscience (3)
Psychology 4501: Advanced Behavioral Neuroscience (3)
Psychology 3513: Introduction to Cognitive Neuroscience (3)
S&H 5760: Neurology of the Speech and Hearing Mechanism (3)
EEOB 4550: Neurobiology (3)

Cognition

Psychology 3310: Sensation and Perception (3)
Psychology 3312: Memory and Cognition (3)
ISE 3700: Cognitive Engineering Systems (3)
Psychology 4508: Judgment and Decision Making (3)

Computation

CSE 3321: Automata and Formal Languages (3)
CSE 3521: Survey of Artificial Intelligence I: Basic techniques (3)
CSE 5522: Survey of Artificial Intelligence II: Advanced Techniques (3)
CSE 5914: Capstone Design: Knowledge-based Systems (4)
CSE 5526: Introduction to Neural Networks (3)
Psychology 5608: Introduction to Mathematical Psychology (3)
Linguistics 5801: Computational Linguistics I (3)

Language

Linguistics 3701: Language and the Mind (3)
Linguistics 4000: Introduction to Linguistics (3)
Linguistics 5701: Psycholinguistics I (3)
Linguistics 5002: Algebraic Linguistics (3)
Linguistics 5401: Semantic theory I (3)
Linguistics 5101: Phonetics: Phonetic Theory (3)
Linguistics 6201: Syntactic Theory I (3)
Linguistics 5301: Phonological Theory I (3)
S&H 4420: Anatomy, Physiology and Science of Speech (3)
S&H 3330: Language Acquisition (3)
S&H 6776: Advanced Speech Science (3)

Perception

Psychology 3302: Perception and Language (3)
S&H 4440: Anatomy, Physiology, and Science of Hearing (3)
S&H 6775: Anatomy and Physiology of the Auditory System (3)

Philosophical Foundations

Philosophy 2500: Symbolic Logic (3)
Philosophy 3750: Introduction to Theory of Knowledge (3)
Philosophy 3600: Introduction to Philosophy of Language (3)
Philosophy 5520: Inductive Logic and Probability Theory (3)
Philosophy 5750: Advanced Theory of Knowledge (3)
Philosophy 5800: Advanced Philosophy of Mind (3)
Philosophy 5600: Advanced Philosophy of Language (3)

Requirements for the Undergraduate Minor in Cognitive Science

The cognitive science minor requires a minimum of 14 credit hours of course work. Once the cognitive science coordinator has approved the Minor Program Form, you should file the form with your college or school counselor.

Required core 3 credit hours:

- **Introduction to Cognitive Science**

Additional course work of 12 or more credit hours:

- **Area/Module Requirement (at least two courses from one of the areas listed above that are offered by two different departments)**
- **Elective Requirement (at least two listed courses that were not taken to fulfill the Area Module Requirement)**

Cognitive Science Minor program guidelines

- One cannot use courses from the department of your major to satisfy the minor, except when the major is psychology. Psychology majors may include psychology courses on the cognitive science minor, but those courses cannot count toward the major.
- Courses selected to fulfill the area/module and elective course work requirements must come from at least two different departments.
- A student may request that the undergraduate advisor in cognitive science approve a non-standard module.

Transition Policy

Any completed Quarter courses that met the requirements of the minor prior to program conversion will be accepted. Credits will be converted from Quarter to Semester hours. This policy will be maintained even if a student declares the minor after the University has switched to Semester system. All other unforeseen issues that may arise will be resolved by the Coordinator of the Cognitive Science Program in consultation with the student's academic advisor.

**The Ohio State University
College of Arts and Sciences
Cognitive Science Minor (COGNITS-MN)**

Center for Cognitive Science
208 Ohio Stadium East
1961 Tuttle Park Place
Columbus, OH 43210-1336
(614) 292-8200

Cognitive science is an interdisciplinary study of the mind that incorporates psychological, philosophical, linguistic, biological, and artificial intelligence approaches to how knowledge is acquired, processed, and represented in the mind. The minor in cognitive science consists of at least five courses totaling 20-25 credit hours as described below.

If you complete the minor following the guidelines on this sheet, you should file the Minor Program Form with a college or school counselor. Any variation from the program described below needs the approval of the undergraduate advisor in the center. For further information about the minor, contact the Center for Cognitive Science.

cog.ohio-state.edu

Cognitive science minor program guidelines

- You cannot use courses from the department of your major to satisfy the minor, except when your major is psychology. Psychology majors may include psychology courses on the cognitive science minor, but those courses cannot count toward the major.
- Courses selected to fulfill the area/module and elective course work requirements must come from at least two different departments.
- You may request that the undergraduate advisor in cognitive science approve a non-standard module.

Required course (5 credit hours)

Introduction to Cognitive Science is listed as Computer Science and Engineering 612, Linguistics 612, Philosophy 612, and Psychology 612 in the *Course Offerings Bulletin*.

Area/module requirement

Select at least two courses from one of the following areas.

Biological foundations

Evolution, Ecology, and Organismal Biology 540, 632
Psychology 313, 501, 513
Speech and Hearing Science 765

Cognition

Psychology 312, 503, 630

Computation

Computer Science and Engineering 625, 630, 730, 731, 779
Linguistics 684.01
Psychology 608

Decision and action

Industrial and Systems Engineering 573
Psychology 508, 620

Language

Linguistics 371, 601, 615, 681, 683.01
Psychology 302
Speech and Hearing Science 420, 330(430), 776

Perception

Psychology 310, 603, 606, 619, 625
Speech and Hearing Science 440, 775

Philosophical foundations

Philosophy 250, 460, 473, 653, 660, 667, 673

Elective courses

The remaining two courses are to be selected from any of the courses listed in the area/module section that were not used to fulfill that requirement.

Arts and Sciences minor program guidelines

The following guidelines govern minors.

Required for graduation No

Credit hours required A minimum of 20 (some minors require more)

Transfer credit hours allowed A maximum of 10

Overlap with the GEC Permitted, unless specifically disallowed by an individual minor program.

Overlap with the major Not allowed and

- The minor must be in a different subject than the major.
- The same courses cannot count on the minor and on the major.

Overlap between minors Each minor completed must contain 20 unique hours.

100-level course: For every five credit hours of 100-level course work on the minor, the minimum total required for the minor is increased by five.

Grades required

- Minimum C- for a course to be listed on the minor.
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-Pass cannot count on the minor.

Approval required The minor program description sheet indicates if the minor course work must be approved by:

- The academic unit offering the minor, or
- A college/school counselor.

Filing the minor program form The minor program form must be filed at least by the time the graduation application is submitted to a college/school counselor.

Changing the minor Once the minor program is filed in the college office, any changes must be approved by:

- The academic unit offering the minor, or
- A college/school counselor (depending on the minor).

College of Arts and Sciences
Curriculum and Assessment Services
154 Denney Hall, 164 W. 17th Ave.
<http://artsandsciences.osu.edu>
KDH 8/27/09
Update 8/10/10 DH