



## Undergraduate Degree Map for Completion in Four Years

<b>College:</b>	College of Arts and Humanities <input type="button" value="v"/>
<b>Department:</b>	Philosophy <input type="button" value="v"/>
<b>Name of Program:</b>	COGNITIVE SCIENCE <input type="button" value="v"/>
<b>Degree Designation:</b>	BS <input type="button" value="v"/>
<b>Emphasis/Concentration:</b>	<input type="text"/> <input type="button" value="v"/>
<b>Option:</b>	<input type="text"/>
<b>Version:</b>	<input type="text"/> <input type="button" value="v"/>
<b>Version Explanation:</b>	<input type="text"/>
<b>Type of Program:</b>	Broad Major <input type="button" value="v"/>
<b>Minor Required:</b>	No <input type="button" value="v"/>
<b>Specific Minor (if required):</b>	<input type="text"/>

### Program Description:

Cognitive Science is an interdisciplinary inquiry concerned with understanding the nature and development of such intelligent capacities as perception, language, reasoning, learning and problem solving, whether these capacities are realized in biological or artificial systems. Such inquiry is by its very nature interdisciplinary, integrating methodological, theoretical and practical foci of Biology, Computer Science, Philosophy and Psychology into a single course of study.

The cognitive science major is a broad major and does not require that a student complete a minor in addition to the major. The major requires approximately 60 units (depending on area of emphasis). As prerequisites for the major students must also take CHEM 201, General Chemistry I (5 units), Math 121, Calculus I (4 units) PSYCH 201, Statistics for Psychology, (4 units) OR STAT 354, Concepts of Probability and statistics (3 units). Some of these program requirements can be fulfilled in General Education. Some of the concentrations have additional prerequisites. The program requirements in the MSU Bulletin should be read carefully and discussed with a Cognitive Science program faculty member.

Each Cognitive Science major will concentrate in one of the four participating disciplines: Biology, Computer Science, Philosophy or Psychology. The concentration typically requires 24 units of work. In addition to the concentration each student will take core courses from each of the other three participating disciplines. Each core will typically require 12 units of course work, a total of 36 units. A student need not do the core for her or his area of concentration since the core is already included in the concentration.

The structure of the major insures that students have a solid grounding in each of the four disciplines as well as a specific concentration in one area that draws on the interdisciplinary foundation.

### Admission Requirements:

Admission requirements are:  
 --a minimum of 32 earned semester hours.  
 --a minimum cumulative GPA of 2.5 (C)

### Advising:

You are expected to meet with your advisor on a regular basis to ensure courses are taken in an order that will lead to successful completion of the degree.

Each semester Cognitive Science majors must get their proposed class schedules approved by a Cognitive Science Program faculty member. Any Program faculty may provide such approval.

A complete listing of program faculty, policies, and course descriptions is available in the undergraduate bulletin.

### TERM 1 - FALL

Designator:	Course:	Course Name:	Credits:	Milestones:
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 15 credit hours
CS	110	Computer Science I	4	CS 110 is the 1st of several CS classes that must be taken in sequence. Get started on them.
MATH	121	Calculus I	4	A CogSci program prerequisite and it satisfies the GenEd Goal Area 4
CMST	100	Communication Studies, or other Speech and Oral Reasoning, GenEd Goal Area I requirement	3	Satisfies half GenEd Goal Area I
ENG	101	Introduction to Composition	4	Satisfies 2nd half GenEd Goal Area I. Congratulations! You have satisfied in your first semester 2 GenEd Goal Areas and two CogSci Program requirements

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#### Term 1 Notes:

In their first semester and second semester students will take at least 15 credits satisfying Cognitive Science Program prerequisites and/or Gen Ed and graduation requirements. Also students should take CS 110. This is a Computer Science Core Area requirement and is a prerequisite for other Computer Science requirements for CogSci. In order to insure timely progress through the Cognitive Science Program you should begin taking Computer Science courses as earlier as possible. Computer Science classes must be taken in sequence. Next semester you should take Computer Science 111. Choose your courses carefully. Consult with CogSci Program faculty about which courses to choose. Take Gen Ed courses that (1) satisfy Cognitive Science Program requirements; or (2) at once satisfy more than one Gen Ed requirement; or (3) satisfy both GenEd requirements and satisfy the Purple or Gold Diverse Cultures graduation requirement. The laboratory course requirement for Gen Ed Goal Area 3 should be satisfied in Term 1 or 2. Chemistry 201 satisfies both Gen Ed and CogSci requirements. Calculus I satisfies both GenEd Goal Area 4 and CogSci Program requirements. Taking an appropriate Communications Studies class and an English Composition class will fulfill GenEd Goal Area One requirements. With the above recommended courses in your first semester you will and already satisfied GenEd Goal Area 1, Goal Area 4, half of the two course requirement for Gen Ed Goal Area 3 and you will have satisfied two CogSci Program requirements. You will have made a good beginning.

### TERM 2 - SPRING

Designator:	Course:	Course Name:	Credits:	Milestones:
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 30 credit hours Advance to Sophomore status
CS	111	Computer Science II	4	Great! You have now completed 2 CS classes required for CogSci
CHEM	201	Chemistry I	5	

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 30 credit hours Advance to Sophomore status
				This is CogSci prerequisite and satisfies one half of the of the 2 coursed requirement for GenEd Goal Area 3.
PSYH	101	Introduction to Psychological Sciences	4	PSYCH 101 and PHIL 101 are both CogSci required classes. They complement one another and they both satisfy GenEd requirements. PSYCH101 satisfies half of Goal Area 5, PHIL 101 half of Goal Area 6.
PHIL	101	Philosophical problems: The Mind-Body Problem	3	Great! You have in your first year made real progress on both CogSci and GenEd requirements. Since PHIL 101 is WritingIntensive, you have satisfied hals that 2 course requirement.

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### Term 2 Notes:

Students will take at least 15 credits satisfying Gen Ed, graduation and GogSci Program requirements. Gen Ed courses should satisfy requirements of Goal Areas 1, 3, 4, 5, 7, 8, 10, or 11, or the Purple or Gold Diverse Cultures graduation requirement. The laboratory course requirement for Gen Ed Goal Area 3 and the math requirement for Goal Area 4, if taken last term, are now satisfied. Take PSYCH 101 and PHIL 101. These both satisfy GenEd requirements (Goal Areas 5 and 6 respectively), they satisfy CogSci Program requirements and they will go well together. Take these classes and you are making good progress.

### TERM 3 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
PSYCH/STAT	201/354	Statistics for Psychology or Concepts of Probability and Statistics	3-4	Satisfies a CogSci requirement
BIOL	220	Human Anatomy	4	Satisfies a CogSci requirement
		lower-division Gen Ed course/Writing Intensive course/Diverse Cultures course	3	Another GedEd Goal Area 6 class and you will have completed Goal Area 6 requirements. Pick a literature class from English offerings or a Humanities class. It will provide a complementary perspective, from that in CogSci, to the study of people. Pick a class that satisfies the Writing requirement or Diverse Cultures graduation requirements or both. Congratulations again! you have now completed another Gen Ed requirement, Goal Area 6, and the the 2nd course for the Writing Intensive and/or half Diverse Cultures
		lower-division Gen Ed course/Writing Intensive course/Diverse Cultures course	3	

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
				Take a course that satisfies the 2nd half of the 2 course Goal Area 5. Pick a course that satisfies the 2nd half of the Diverse Cultures graduation requirement. To complement the CogSci perspective take an Anthropology class. Pick one, say, say ANTH 101, that satisfies all of Goal Area 5 requirements, Goal Area * requirements and the Diverse Cultures graduation requirement.
		Performance and participation Gen Ed class	2-3	Very, very good. If you have consulted with an advisor and chosen classes carefully you will by this time have completed GenEd Goal Areas 1, 4, 5, 6 and 11 as well as half of Goal Areas 3 and 8, the Writing Intensive requirement and half the Diverse Cultures graduation requirement.

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### Term 3 Notes:

With the above recommended courses you will have satisfied two more CogSci requirements. You must take a statistics class. And you must take the biology Anatomy class. You will have now, in your first three terms taken at least one class from each of the four disciplines that comprise the CogSci Program. This will give you a good feel for the program and its interdisciplinary character. With a couple more carefully chosen GenEd classes you can complete a couple GenEd Goal Areas. Try to take classes that satisfy more than one GenEd category and/or satisfy the Writing Intensive course and/or Diverse Cultures course requirements.

## TERM 4 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 60 credit hours Advance to Junior status
CS	230	Introduction to Intelligent Systems	4	This is the 3rd class CS class you have to take. CS 110 and 111 will have prepared you for it.
BIOL	324/330	Neurobiology or Principles of Human Psychology	3-4	Both of these have to be taken to meet CogSci requirements in Biology. Take one.
		CogSci core elective or CogSci major emphasis course	3	elect a course that meets remaining CogSci core requirements. If you have decided on an Emphasis in CogSci you can begin taking classes of it.
		Gen Ed course/ Diverse Cultures course	3	You still need to satisfy GeEd Goal Area 7. Pick a course that satisfies both Goal Area 7 and Goal Area 9 and/or the Diverse Cultures graduation requirement.
		Gen Ed course	3	

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 60 credit hours Advance to Junior status
				You probably need one more course to satisfy Goal Area 7. Take it. If you have consulted with an advisor and chosen classes carefully you will by this time have completed GenEd Goal Areas 1, 4, 5, 6, 7, 8, and 11 as well as half of Goal Areas 3 and 7, the Writing Intensive requirement and half the Diverse Cultures graduation requirement

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#### Term 4 Notes:

By the end of this term, if you have made your choices carefully, you should have satisfied nearly all of Gen Ed requirements, as well as Writing Intensive and Diverse Cultures graduation requirements. You will have satisfied all but possibly two GenEd requirements. You will have satisfied Cognitive Science Program prerequisites and you will have taken at least one class from each of the Cognitive science areas opt emphasis. You are now ready for more classes that satisfy Cognitive Science core area requirements and your chosen emphasis (biology, computer science, psychology or philosophy) requirements.

### TERM 5 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Apply for Graduation
		Gen Ed course	3	You need to satisfy GenEd Goal Area 10. Take a class that satisfies both Goal Area 10 and the 2nd class needed to satisfy goal Area 3.
		Gen Ed course	3	If you have carefully selected classes you have completed GenEd and Writing Intensive and Diverse Cultures graduation requirements. If there is any requirements you have yet to satisfy take a class to satisfy it. Remember there are 44 required GenEd credits. Congratulations, you have only CognSci courses and elective yet to take
		Cog Sci Core Area or Major Emphasis course	3	
		Cog Sci Major Emphasis course	3-4	
		Cog Sci Major Emphasis course	3	


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#### Term 5 Notes:

You probably have a couple more GenEd classes to take. In consultation with a CogSci faculty advisor choose them carefully. You can now also take more CogSci Core Area courses and begin taking courses in your chosen CogSci Area of Emphasis. You must choose three Core Areas and one Area of Emphasis. Both Core Areas and an area of Emphasis must be chosen from the four participating disciplines: biology, computer science, philosophy, computer science, philosophy and psychology. Also keep in mind that it is a graduation requirement that 40 credits, of the 120 credits required for graduation, must be chosen from the upper level, 300-400 level offerings. As you can, choose your course from upper level, 300-400 offerings. Such offerings can be from GenEd or CogSci.

## TERM 6 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 90 credit hours Advance to Senior status
		Cog Sci Major Emphasis course	3	
		Cog Sci Major Emphasis course	3-4	
		Cog Sci Major Emphasis course	3-4	
		general elective	3	

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**Term 6 Notes:**

You must choose three core areas and one area of concentration. Both core area and an area of concentration must be chosen from the four participating disciplines: biology, computer science, philosophy, computer science, philosophy and psychology. General elective can be chosen from any offerings in any department. Choose courses that interest you. But keep in mind that it is a graduation requirement that 40 credits, of the 120 credits required for graduation, must be chosen from the upper level, 300-400 level offerings. Choose you electives from upper level offerings.

## TERM 7 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
		Cog Sci Major Emphasis course	3	
		Cog Sci Major Emphasis course	3-4	
		general elective	3	
		general elective	3	

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**Term 7 Notes:**

If you have chosen courses carefully you will at the end of this term satisfied all requirements for your degree except the 120 unit requirement. You can now take some elective courses. But keep in mind that it is a graduation requirement that 40 credits, of the 120 credits required for graduation, must be chosen from the upper level, 300-400 level offerings. Choose you electives from upper level offerings. If you are disposed you may decide to uses these electives to complete a second major in the area of your CogSci Area of Emphasis.

## TERM 8 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
		general elective	3	
		general elective	3	
		general elective	3	
		general elective	3	

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**Term 8 Notes:**

If you have made your choices along the way carefully you are now at liberty to take some electives. But keep in mind that it is a graduation requirement that 40 credits, of the 120 credits required for graduation must be chosen from the upper level, 300-400 level offerings. Choose you electives from upper level offerings. YOU ARE DONE. CONGRATULATIONS.

**PROGRAM NOTES**

You must choose three core areas and one area of concentration. Both core area and an area of concentration must be chosen from the four participating disciplines: biology, computer science, philosophy, computer science, philosophy and psychology. General electives can be chosen from any offerings in any department. Choose courses that interest you. But keep in mind that it is a graduation requirement that 40 credits, of the 120 credits required for graduation, must be chosen from the upper level, 300-400 level offerings. Choose you electives from upper level offerings.

**DEGREE MAP CHECKLIST: GRADUATION REQUIREMENTS**

<input checked="" type="checkbox"/>	1. Minimum of 15 credits per semester
<input checked="" type="checkbox"/>	2. General Education = 44 credits
<input checked="" type="checkbox"/>	3. Diverse Cultures = 2 course (6 credits minimum) from two disciplines
<input checked="" type="checkbox"/>	4. Writing Intensive = 2 courses (6 credits minimum)
<input type="checkbox"/>	5. Major = <input type="text" value="67"/> credits
<input type="checkbox"/>	6. Upper-Division Requirements = 40 credits minimum
<input type="checkbox"/>	7. Professional Education (if required) = 30 credits
<input type="checkbox"/>	8. Language Requirements (if BA) = 8 credits minimum
<input type="checkbox"/>	9. Minor = <input type="text"/> credits
<input type="checkbox"/>	10. Total credits required for degree <input type="text" value="120"/>

**DEGREE MAP COMPLETE**

<input checked="" type="checkbox"/>	Map is complete and ready for review <ol style="list-style-type: none"> <li>1. Faculty please send an email to your Department Chair when map is ready to review.</li> <li>2. Department Chair please send an email to your Dean when map is ready to review.</li> <li>3. Dean please send an email to the Assistant Vice President for Undergraduate Studies when map is ready to review.</li> </ol>
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**DEAN APPROVAL**

<input checked="" type="checkbox"/>	Map reviewed and approved by Dean
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**Save and Close**