

Cognitive Science Program

Department of Philosophy

Undergraduate Program Office
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Cognitive Science Contact Information

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COGNITIVE SCIENCE FACULTY

NAME	FACULTY	ROOM	EXT.	EMAIL
Adler, Scott A. RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Infant cognition ▪ Vision ▪ Developmental psychology 	Psychology, HH	BSB 333	33389	adler@yorku.ca Website: http://vcdp.blog.yorku.ca/
Alboiu, Gabriela RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Control phenomenon ▪ Argument structure ▪ Structural encodings of discourse properties 	Languages, Literatures And Linguistics, AP	Ross S555	20302	galboiu@yorku.ca Website: www.yorku.ca/galboiu/
Allison, Robert RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Human-computer interaction ▪ Virtual reality ▪ Machine vision ▪ Perception of human motion 	Computer Science, SC Center for Vision Research	Lassonde 3051	20192	allison@cse.yorku.ca Website: www.cse.yorku.ca/~allison/
Andrews, Kristin RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Comparative cognitive science ▪ Animal cognition ▪ Moral psychology ▪ Social cognition ▪ Folk psychology 	Philosophy, AP	Ross S420	77590	andrewsk@yorku.ca Website: www.yorku.ca/andrewsk
Baljko, Melanie RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Multimodal communication ▪ Augmentative and alternative communication, ▪ Adaptive interfaces, ▪ Computational stylistics, ▪ Computer-supported collaborative writing ▪ Women in computer science 	Computer Science, SC	Lassonde 2028	33348	mb@cse.yorku.ca Website: www.cse.yorku.ca/~mb/

Beck, Jacob RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of cognitive science ▪ Mental representation ▪ Nonconceptual content ▪ Animal cognition ▪ Conceptual learning 	Philosophy, AP	Ross S439	22582	jbeck@yorku.ca Website: www.yorku.ca/jbeck/
Bialystok, Ellen RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Developmental-cognitive ▪ General experimental ▪ Second-language acquisition ▪ Development of symbolic skills such as language, number and spatial cognition in preschool and school-age children. 	Psychology, HH	BSB 234	66109	ellenb@yorku.ca Website: http://lcad.lab.yorku.ca/
Desrocher, Mary RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Paediatric neuropsychology ▪ Normative studies of memory functioning through the lifespan ▪ The functioning of the hippocampus and frontal lobes in normal and altered development 	Psychology, HH	BSB 124	33111	mdesroch@yorku.ca
Elder, James RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Visual perception ▪ Psychological and computational methods ▪ Neural modeling 	Psychology, HH	Lassonde 0003G	66475	jelder@yorku.ca Website: elderlab.yorku.ca/~elder/
Fallah, Mazyar RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Systems neuroscience ▪ Cognitive neuroscience ▪ Neurophysiology ▪ Attention, perception 	KINE, HH	HNES 428D	21479	mfallah@yorku.ca Website: www.yorku.ca/mfallah/
Goel, Vinod RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Cognitive and neural basis of rational decision-making ▪ Emotional processing 	Psychology, HH	BSB 332	66150	vgoel@yorku.ca Website: www.yorku.ca/vgoel/
Gottschling, Verena RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of psychology ▪ Philosophical foundations of cognitive science 	Philosophy, AP	Ross S444	44722	vgott@yorku.ca Website: www.gottschling-net.de/
Green, Chris RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ History of psychology ▪ Theoretical cognitive science 	Psychology, HH	BSB 286	66164	christo@yorku.ca Website: www.yorku.ca/christo/
Gryz, Jarek RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Maximal vector computation ▪ Query sampling ▪ Query optimization via data mining ▪ Semantic query caching 	Computer Science, SC	Lassonde 3026	55053	jarek@cse.yorku.ca Website: www.cse.yorku.ca/~jarek/

Harris, Laurence RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Vision ▪ Vestibular system ▪ Eye and head movements ▪ Control systems ▪ Neurophysiology ▪ Perception of motion ▪ Psychophysics ▪ Multi-sensory interaction 	Psychology, HH	BSB 296	55116	harris@yorku.ca Website: www.yorku.ca/harris/
Hattiangadi, Jagdish RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of science ▪ Philosophy of language ▪ History of ideas ▪ Metaphysics ▪ Epistemology 	Philosophy, AP	Ross S437	77524	jagdish@yorku.ca Website: http://www.yorku.ca/jagdish/
Hoffman, Kari L. RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Neural basis of learning and memory ▪ Neural oscillations, synchrony and plasticity ▪ Face and object processing ▪ Active vision and embodied perception 	Psychology, HH	Lassonde 0003F	22939	Khoffman@yorku.ca Website http://health.yorku.ca/health-profiles/index.php?mid=571579
Huang, Jimmy RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Information retrieval, data mining ▪ Natural language processing ▪ Computational linguistics 	ITEC, AP	TEL 3048	30149	jhuang@yorku.ca Website: www.yorku.ca/jhuang
Huss, Brian RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Psychology of logical reasoning ▪ Doxastic voluntarism ▪ Moral psychology 	Philosophy, AP	Ross S414	33634	huss@yorku.ca
Jackman, Henry RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of language ▪ Philosophy of mind ▪ Epistemology ▪ American pragmatism 	Philosophy, AP	Ross S434	77595	hjackman@yorku.ca Website: www.jackman.org
Jenkin, Michael RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Computer vision ▪ Virtual reality ▪ Mobile robotics 	Computer Science, SC	Lassonde 3032	33162	jenkin@cse.yorku.ca Website: www.cs.yorku.ca/~jenkin/
Johnson, Janice M. RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Developmental-cognitive ▪ General experimental ▪ Cognition ▪ Psycholinguistics ▪ Cognitive process analysis 	Psychology, HH	BSB 246	66214	janicej@yorku.ca
Jopling, David RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of psychology ▪ Continental philosophy 	Philosophy, AP	S435 Ross	77588	jopling@yorku.ca

Khalidi, Muhammad Ali RESEARCH AREA/INTEREST <ul style="list-style-type: none"> ▪ Philosophy of cognitive science ▪ Philosophy of mind and language ▪ Innateness, domain specificity, concepts 	Philosophy, AP	Ross S438	77586	khalidi@yorku.ca Website: www.yorku.ca/khalidi/
Lesperance, Yves RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Knowledge representation ▪ Autonomous agents and multi-agent systems ▪ Cognitive robotics 	Computer Science, SC	Lassonde 3052A	70146	mlesperan@cse.yorku.ca Website: www.cse.yorku.ca/~lesperan/
MacDonald, Suzanne RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Comparative cognition ▪ Spatial cognition ▪ Language and communication 	Psychology, HH	BSB 297	66226	suzmac@yorku.ca Website: http://suzannemacdonald.ca/
Manafu, Alexandru RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of Science ▪ Metaphysics of Science 	Philosophy, AP	Ross S414A	33636	alexman@yorku.ca Website: http://profiles.laps.yorku.ca/profiles/alexman/
Mar, Raymond RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Cognitive effects of narrative fiction ▪ Social cognition ▪ Autobiographical memory 	Psychology, HH	BSB 293	66226	mar@yorku.ca Website: www.yorku.ca/mar/
Murray, Richard RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Perceptual psychology ▪ Visual psychophysics ▪ Perceptual organization ▪ Three-dimensional shape perception 	Psychology, HH Centre for Vision Research	Lassonde 0009	23025	rfm@yorku.ca Website: www.yorku.ca/rfm/
Murtha, Susan RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Cognitive impairment ▪ Aging ▪ Memory 	Psychology, HH	BSB 217	66132	smurtha@yorku.ca
Narayan, Chandan RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Acoustic-phonetics ▪ Speech Perception ▪ Language acquisition ▪ Psycholinguistics 	DLLL, AP	Ross 546A	33791	chandann@yorku.ca Website: http://sap.lab.yorku.ca/
Park, Norman RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Cognitive and neuropsychological processes associated with perceiving and remembering ▪ Attention and Memory 	Psychology, HH	BSB 213	22159	npark@yorku.ca
Pascual-Leone, Juan RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Developmental and cognitive processes 	Psychology, HH	BSB 402C	66148	juanpl@yorku.ca

<p>Pelham, Judy</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Logic ▪ Logical truth ▪ The logic of conditionals 	Philosophy, AP	Ross S440	77591	<p>pelham@yorku.ca</p> <p>Website: http://www.yorku.ca/pelham/</p>
<p>Rich, Jill</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Clinical, semantic memory, implicit memory and prospective memory ▪ Memory processing in normal aging and dementia ▪ Cognitive processes ▪ Neural basis of behaviour 	Psychology, HH	BSB 248A	30561	<p>jbr@yorku.ca</p> <p>Website: www.yorku.ca/jbr/</p>
<p>Rini, Regina</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Ethics ▪ Psychology ▪ Moral Cognition ▪ Social Epistemology 	Philosophy, AP	Ross S416		<p>rarini@yorku.ca</p> <p>Website: https://reginarini.net/</p>
<p>Rosenbaum, Shayna</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Clinical neuropsychology and cognitive neuroscience ▪ Cognitive and neural basis of remote memory (spatial, episodic, semantic) and mental state attributions ▪ Lesion and fMRI methods 	Psychology, HH	AC 041	20449	<p>shaynar@yorku.ca</p> <p>Website: www.yorku.ca/shaynar/index.htm</p>
<p>Russon, Anne</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Comparative studies of nonhuman primates ▪ Infant social and cognitive development ▪ Imitation ▪ Tool use ▪ Social vs. ecological intelligence ▪ The evolution of primate intelligence 	Psychology, GL	Glendon York Hall, 165	88363	<p>arusson@glendon.yorku.ca</p> <p>Website: www.yorku.ca/arusson/</p>
<p>Sergio, Lauren</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Behavioural and electromyographic studies of multi-joint movement coordination ▪ Neural mechanisms underlying visually guided reaching in parietal and precentral cortex ▪ Control of voluntary movement in neurological patient population 	Psychology and Kinesiology and Health Science, HH	Norman Bethune 357	33641	<p>lsergio@yorku.ca</p> <p>Website: www.yorku.ca/lsergio/</p>
<p>Shanker, Stuart</p> <p>RESEARCH AREA/INTERESTS:</p> <ul style="list-style-type: none"> ▪ Parent-child relationships and children's development ▪ Role of emotion in evolution and development of language, intelligence, social skills and empathy ▪ Interaction between development of mind and brain 	Psychology, HH	TEL 5030E	20386	<p>shanker@yorku.ca</p> <p>Website: www.self-reg.ca</p>

Steele, Jennifer RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Implicit social cognition ▪ Stereotype development ▪ Social perception 	Psychology, HH	BSB 331	22156	steeleje@yorku.ca Website: http://www.yorku.ca/steeleje/research/index.php
Verheggen, Claudine RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of Language ▪ Philosophy of Mind ▪ Wittgenstein ▪ Davidson 	Philosophy, AP	Ross S436	77553	cverheg@yorku.ca Website: http://www.yorku.ca/cverheg/
Waring, Duff RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Philosophy of psychiatry ▪ Conception of mental disorder ▪ Personality traits and ethical virtues in psychotherapy 	Philosophy, AP	Ross S428	33522	dwaring@yorku.ca
Wilcox, Laurie RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Stereoscopic Vision ▪ 3D Film Technology ▪ Second-order stereopsis 	Psychology, HH	Lassonde 0003H	66494	lwilcox@yorku.ca Website: http://www.wilcoxlab.yorku.ca/Home.html
Wilkinson, Frances RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Migraine and the Visual System ▪ Vision and Aging ▪ Intermediate Level Form Perception ▪ Face Perception 	Psychology, HH	Lassonde 1012D	33184	franw@yorku.ca Website: http://www.yorku.ca/franw/
Wilson, Hugh RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Psychophysics ▪ Visual Network Models ▪ Cortical Neuron Models ▪ Nonlinear Dynamics in Neuroscience 	Biology, SC	Lassonde B002F	33140	hrwilson@yorku.ca Website: http://cvr.yorku.ca/webpages/wilson.htm
Wiseheart, Melody RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Developmental cognitive neural science ▪ Cognitive flexibility and executive function, ▪ Educational applications of cognitive psychology 	Psychology, HH	BSB 242	33266	ncepeda@yorku.ca Website: http://www.yorku.ca/ncepeda/
Womelsdorf, Thilo RESEARCH AREA/INTERESTS: <ul style="list-style-type: none"> ▪ Attentional Control ▪ Decision Making in prefrontal striatal systems ▪ Reinforcement learning ▪ Functional brain networks and synchronization 	Biology, SC	Lumbers 320	22468	thiwom@yorku.ca

INTRODUCTION

What is the Cognitive Science Program?

Our interdisciplinary program in Cognitive Science offers you a challenging opportunity to study the mind and its processes from multiple perspectives. In this program you can combine courses from Computer Science, Linguistics, Philosophy, and Psychology to gain an expansive knowledge of the cognitive processes we might find in humans, animals, and machines.

We offer both a Minor and a Major in Cognitive Science. Cognitive Science majors, as well as minors, will examine the nature of thought, emotion, perception, and language using the methodologies of the different disciplines in order to acquire a richly integrated understanding of the mind. You will have the chance to study the different ways in which infants and non-human animals may be able to think and reason without language, how computers can be programmed to demonstrate intelligence, and the nature of the relationship between social interaction and cognition. Our faculty members are conducting research in such diverse areas as infant social cognition, virtual reality, neuro-psychology of reasoning, and moral psychology. Your study will be enriched by your contact with energetic faculty, research groups, labs and research centers that are engaged in ground-breaking work in the field of Cognitive Science.

Why Major in Cognitive Science?

As a Cognitive Science major or minor, you will learn to bring a variety of different perspectives together. You will become familiar with some of the oldest questions in Philosophy and the most recent findings in the Sciences. Topics and questions include:

- What is the relationship between philosophy, psychology, computer science, and linguistics?
- What is the relationship between the mind and the brain?
- How does the technology used to study the brain work, and what assumptions must we make to use it?
- How can we best explain human abilities like language, reasoning, problem-solving, and memory?
- What is the connection between language and thinking?
- How can we best understand various cognitive disorders?
- How does human cognition differ from the cognition of other animals, such as the great apes?
- To what extent is cognition innate, and to what extent is it acquired through experience?

Career Options for Cognitive Science Majors

Whatever profession you choose, you will be able to perform better if you understand how the mind works:

- If you want to go into Psychology, Psychiatry or Counseling, Cognitive Science supplies a broad understanding of the theories of psychology as well as skills in computer modeling techniques to supplement psychology's experimental approach.
- If you plan to teach, Cognitive Science can help you understand how people learn so you can work out better teaching methods.
- If you plan to go into law, you'll be more effective in court if you have some insight into how juries make decisions.
- If you want to become a Business Manager or Human Resources Consultant, Cognitive Science will provide a scientific basis for understanding how people use language and perform intellectual tasks.

Since Cognitive Science integrates the knowledge and methods of a number of disciplines, the skills acquired can be applied to most of the fields and professions related to the four disciplines, including: telecommunications, information and language processing, artificial intelligence, cognition software development, medical analysis, speech pathology, data retrieval, human-computer interaction, therapy, and education.

A Sample of Career Paths of Cognitive Science Graduates

Previous Cognitive Science graduates have found careers in research laboratories, community and mental health organizations, hospitals, clinics, non-profit organizations, governments, universities, colleges, newspapers, and magazine publishing. Others have gone on to earn graduate degrees in Philosophy, Neuroscience, Psychology, Linguistics, Computer Science, Business, and Law.

Recent Cognitive Science graduates provide testimonials about their career opportunities and graduate studies at: <http://www.yorku.ca/laps/phil/cogs/alumni.html>

Why Minor in Cognitive Science?

We also offer a minor in Cognitive Science. The Honours Minor BA program described may be combined with any approved Honours BA program that offers a major/minor option in the Faculties of Environmental Studies, Fine Arts, Health, Liberal Arts and Professional Studies, or Science and Engineering. This enables to add a Cognitive Science component to your Major BA program.

Cognitive Science Speaker Series

In addition to learning from the skilled researchers at York University, the Cognitive Science program hosts a Speaker Series where you will have the opportunity to learn from other leading researchers from around the world. These talks will give you the chance to engage in some of the most recent research topics and findings in Cognitive Science.

The Cognitive Science program also hosts various types of social events, such as movie nights. These informal gatherings enable and encourage intensive interdisciplinary communication and give students a chance to meet other Cognitive Science students and to talk with faculty members in a less formal setting.

Additionally, the Cognitive Science program organizes national and international conferences and workshops.

Log on to <http://cogs.phil.laps.yorku.ca/speaker-series/> to find out about our latest events!

Research Areas/Interests within the Program

There are many different topics students could focus on, including:

- Language and psycholinguistics
- Memory
- Attention
- Perception
- Emotion
- Nonlinguistic thinking
- Communication, multimodal communication
- Rationality, reasoning and decision-making
- Neural modeling
- Robotics
- Social cognition
- Cognitive development in animals and humans
- Evolutionary psychology
- Clinical psychology, cognitive disorders
- Comparative cognition
- Moral cognition
- Personhood and free will
- Consciousness and self-consciousness
- Neuroimaging
- Human-computer interaction

COGNITIVE SCIENCE STUDENTS ASSOCIATION OF YORK

Hello from COSSA – the Cognitive Science Students Association!

COSSA's main mandate is to provide students with an environment outside of their academic responsibilities. Being an interdisciplinary program of study, Cognitive Science students often have trouble finding each other and may never know that the student a few seats down shares their interests. We aim to provide a link for students who wish to find like-minded individuals to learn and share their experiences.

We hold a variety of social activities including but not limited to: movie nights, pub nights, and debates with a keen ear to open-minded and analytic conversation. By getting to know others in Cognitive Science, students also gain access to the experience of upper year students and professors to help them tackle the intricacies of carving out their academic path.

University is a place to learn, but not only from lectures and books, learning from the minds of others is how we grow as people.

For more information, please contact <cossayorku@gmail.com> or visit our website:
<https://yorku.collegiatelink.net/organization/cossa>.

We at COSSA look forward to meeting and learning with you.

Best wishes,
The Cognitive Science Students Association

SPECIALIZED HONOURS BA PROGRAM IN COGNITIVE SCIENCE

The Honours BA program in Cognitive Science is housed in the Department of Philosophy and combines the departmental specializations of the Department of Philosophy, Psychology, Linguistics, and Computer Science. What is especially exciting about Cognitive Science is its nature of interdisciplinary cooperation, involving Psychologists, Philosophers, Computer Scientists, Neuroscientists, Anthropologists, Biologists, Linguists and others. By taking a variety of perspectives, the Cognitive Scientist has a greater chance of finding answers to our questions about the way the mind works.

Students in Cognitive Science may focus on a number of different areas including Human-Computer Interaction, Artificial Intelligence, Animal Cognition, Language and Thought, Linguistic Development, Comparative Cognition and many more. Students can arrange their program of study in consultation with the Program Coordinator or an Advisor in the program.

Degree Requirements

You can download a degree requirements checklist to help you plan your path through the program at the program website: <http://www.yorku.ca/laps/phil/cogs/index.html>. You should also consult individual course listings to determine the necessary prerequisites for each course in the program. Students will be responsible for making sure that all necessary prerequisites have been met for each course.

Recommended Courses for 1st Year Students

First year students are advised to fulfill at least some of their General Education requirements. In addition, in their first or second year, Cognitive Science majors are advised to enrol in: PSYC 1010, COGS 2160, and either LING 1000 or COGS/LING 2800. Please consult with LAP&S student advising services (<http://laps.yorku.ca/student-resources/student-services/academic-advising-services/>) or the program coordinator for further advice about course selection.

SPECIALIZED HONOURS BA PROGRAM4

Honours Major BA in Cognitive Science

All students must satisfy the General Education/Foundations requirement.

A. Students must complete *all* of the following Core Courses (27 or 30 credits):

Course Code	Weight	Course Title
AP/LING 1000	6.0	Introduction to Linguistics OR
AP/COGS/LING 2800	3.0	Mind and Language
HH/PSYC 1010	6.0	Introduction to Psychology
HH/PSYC 2260	3.0	Cognition
AP/COGS/PHIL 2160	3.0	Minds, Brains, and Machines
AP/PHIL 3260	3.0	Philosophy of Psychology
AP/PHIL 3750	3.0	Philosophy of Artificial Intelligence
AP/COGS 4750	6.0	Honours Thesis in Cognitive Science OR
AP/COGS 4901	6.0	Honours Seminar (but not both)

B. Students must complete 6 credits chosen from the following:

Course Code	Weight	Course Title
LE/EECS 1022	3.0	Programming for Mobile Computing
LE/EECS 2001	3.0	Introduction to the Theory of Computation
LE/EECS 2030	3.0	Advanced Object Oriented Programming
AP/ITEC 1000	3.0	Introduction to Information Technologies
AP/ITEC 1010	3.0	Information and Organizations
AP/LING 2120	3.0	Fundamentals of Phonological Analysis
AP/LING 2130	3.0	Fundamentals of Morphological Analysis
AP/LING 2140	3.0	Fundamentals of Grammatical Analysis
AP/PHIL 2100	3.0	Introduction to Logic
AP/PHIL 2240	3.0	Introduction to Philosophy of Mind
HH/PSYC 2020	6.0	Statistical Methods I and II
HH/PSYC 2021	3.0	Statistical Methods I
HH/PSYC 2030	3.0	Introduction to Research Methods

C. Students must complete 9 credits chosen from the following, including at least two different disciplines (departments):

Course Code	Weight	Course Title
LE/EECS 2011	3.0	Fundamentals of Data Structures
LE/EECS 3401	3.0	Introduction to Artificial Intelligence and Logic Programming
AP/ITEC 3230	3.0	Designing User Interfaces
AP/LING 3120	3.0	Phonology
AP/LING 3140	3.0	Syntax
AP/LING 3150	3.0	Semantics
AP/LING 3210	3.0	First Language Acquisition
AP/LING 3220	3.0	Psycholinguistics
AP/PHIL 3265	3.0	Philosophy of Mind
HH/PSYC 2110	3.0	Developmental Psychology
HH/PSYC 2120	3.0	Social Psychology
HH/PSYC 2220	3.0	Sensation and Perception I
HH/PSYC 2240	3.0	Biological Bases of Behaviour
HH/PSYC 3250	3.0	Neural Basis of Behaviour

HH/PSYC 3265	3.0	Memory
HH/PSYC 3280	3.0	Animal Behaviour
HH/PSYC 3290	3.0	Psycholinguistics

D. Students must complete 6 credits chosen from the following, and including at least two different disciplines (departments):

Course Code	Weight	Course Title
LE/EECS 4401	3.0	Artificial Intelligence
LE/EECS 4421	3.0	Introduction to Robotics
LE/EECS 4422	3.0	Computer Vision
LE/EECS 4441	3.0	Human-Computer Interaction
AP/LING 4120	3.0	Advanced Phonology
AP/LING 4140	3.0	Advanced Syntax
AP/LING 4150	3.0	Topics in the Syntax-Semantics Interface
AP/LING 4230	3.0	Language and the Brain
AP/LING 4250	3.0	Evolution of Language
AP/PHIL 3200	3.0	Philosophy of Language
AP/PHIL 3635	3.0	Philosophy of Neuroscience
AP/PHIL 4080	3.0	Seminar in the Philosophy of Mind
AP/PHIL 4082	3.0	Philosophy of Cognitive Science
AP/PHIL 4083	3.0	Philosophy of Clinical Psychology
AP/PHIL 4084	3.0	Animals and the Philosophy of Mind
HH/PSYC 4010	3.0/6.0	Seminar in Developmental Psychology
HH/PSYC 4020	3.0/6.0	Seminar in Social Psychology
HH/PSYC 4080	6.0	Neuropsychology of Abnormal Behaviour
HH/PSYC 4285	3.0	Seminar in Comparative Cognition
HH/PSYC 4230	3.0	Human Performance in Systems
HH/PSYC 4260	3.0	Seminar in Sensation and Perception
HH/PSYC 4270	3.0	Seminar in Memory and Cognition

UPPER LEVEL REQUIREMENT: Students must meet the upper-level requirement which is **36 credits** at the 3000 level or 4000 level. A minimum of **18 credits** must be at the 4000 level. Students should consult the most recent Undergraduate Calendar for their chosen program and major for specific requirements.

Honours Minor BA in Cognitive Science

The Honours Minor in Cognitive Science comprises at least 30 credits, distributed as follows:

A. Students must take all of the following courses (18 credits):

LING 1000	6.0	Introduction to Linguistics
PSYC 1010	6.0	Introduction to Psychology
COGS/PHIL 2160	3.0	Minds, Brains, and Machines
PSYC 2260	3.0	Cognition

B. Students must take 6 credits from the following list:

COGS/LING 2800	3.0	Language and Mind
PHIL 2240	3.0	Introduction to the Philosophy of Mind
PHIL 3260	3.0	Philosophy of Psychology
PHIL 3265	3.0	Philosophy of Mind
PHIL 3635	3.0	Philosophy of Neuroscience
COGS/PHIL 3750	3.0	Philosophy of Artificial Intelligence

C. Students must take 6 credits from the following list:

PHIL 4080	3.0	Seminar in the Philosophy of Mind
PHIL 4082	3.0	Philosophy of Cognitive Science
PHIL 4083	3.0	Philosophy of Clinical Psychology
PHIL 4084	3.0	Animals & the Philosophy of Mind
PHIL 4085	3.0	Philosophy of Psychiatry

HONOURS PROGRAMS/DEGREE OPTIONS

Honours (Double Major) BA Program

The program described above may be pursued jointly with any other Honours Bachelor's degree program in the Faculties of LA&PS, Environmental Studies, or Fine Arts, or with a major in Computer Science, Earth and Atmospheric Science or Physics and Astronomy in the Faculty of Pure and Applied Science.

Honours (Double Major) Interdisciplinary BA Programs

The program described above may be linked with any Honours (Double Major) Interdisciplinary BA program in the Faculty of LA&PS. Courses taken to meet Cognitive Science requirements cannot also be used to meet the requirements of the interdisciplinary program. Students in these interdisciplinary programs must take a total of at least 18 credits at the 4000-level. For further details of the requirements, see the listings for specific Honours (Double Major) Interdisciplinary BA Programs.

Major/Minor (with Cognitive Science as the Major) BA Program

The program described above may be pursued jointly with any Honours Minor Bachelor's degree program in the Faculty of LA&PS, Environmental Studies, Fine Arts, or with a minor in Computer Science, Biology, Chemistry, or Physics and Astronomy in the Faculty of Science.

Honours Minor in Cognitive Science BA Program

The Honours Minor BA program described may be combined with any approved Honours BA program that offers a major/minor option in the Faculties of Environmental Studies, Fine Arts, Health, Liberal Arts and Professional Studies, or Science and Engineering. For further details on requirements, refer to the listings for specific Honours programs that may be pursued jointly with other Faculties.

Courses

Cognitive Science courses are divided into four groups. All students in the Honours Major in Cognitive Science must take all the core courses. From each of the other three groups, students may choose from among different options.

Students in the Honours Minor in Cognitive Science need 18 credits from the core courses. From each of the other three groups, students may choose from among different options.

A. Core Courses (Major 27 or 30 Credits, Minor 18 credits)	Pages: 17 - 22
B. Lower-Level Computer Science, Information Technology, Linguistics, Psychology, Philosophy (6 credits)	Pages: 23 - 35
C. Mid-level Computer Science, Information Technology, Linguistics, Psychology, Philosophy (9 credits)	Pages: 36 - 45
D. Upper-level Computer Science, Linguistics, Psychology, Philosophy (6 credits)	Pages: 46 - 52

PLEASE NOTE:

THE FOLLOWING COURSE DESCRIPTIONS ARE ACCURATE AS OF MAY 8, 2018.

IT IS INEVITABLE, HOWEVER THAT THERE WILL BE SOME SUBSEQUENT CHANGES IN ASSIGNED COURSE DIRECTORS (AND THEREFORE, IN COURSE FORMAT AND EVALUATION).

PLEASE CONSULT EACH DEPARTMENT'S ONLINE SUPPLEMENTAL CALENDAR FOR UPDATED INFORMATION.

SOME COURSES HAVE "GENERAL PREREQUISITES" IN ADDITION TO THE SPECIFIC PREREQUISITES LISTED FOR EACH COURSE: THESE CAN BE FOUND IN THE RELEVANT PROGRAM'S SUPPLEMENTAL CALENDAR.

COURSE WITH AN ASTERISK (*) INDICATES THAT THERE IS A TUTORIAL/LAB.

A. CORE COURSES

Students must complete the following (27 or 30 credits):

AP/LING 1000 6.0A (Y) – INTRODUCTION TO LINGUISTICS

INSTRUCTOR: TBA
OFFICE: TBA

DAY: Wednesday*
TIME: 10:30am – 12:30pm

PREREQUISITE: None

COURSE CREDIT EXCLUSION: GL/EN/LIN 2605 6.0. PRIOR TO FALL 2009: AS/LING 1000 6.0.

DESCRIPTION: This course examines fundamental principles of language structure and interpretation. The focus is on the core areas, specifically, phonology, morphology, and syntax, but a brief survey of phonetics, semantics, language acquisition, historical linguistics, and language variation is also offered. Data and analytic exercises from a wide range of the world's languages is used for illustration.

AP/LING 1000 6.0B (Y) – INTRODUCTION TO LINGUISTICS

INSTRUCTOR: TBA
OFFICE: TBA

DAY: Wednesday*
TIME: 7:00pm – 9:00pm

PREREQUISITE: None

COURSE CREDIT EXCLUSION: GL/EN/LIN 2605 6.0. PRIOR TO FALL 2009: AS/LING 1000 6.0.

DESCRIPTION: See course description for AP/LING 6.0A (Y).

AP/LING 1000 6.0C (Y) – INTRODUCTION TO LINGUISTICS

INSTRUCTOR: TBA
OFFICE: TBA

DAY: Tuesday*
TIME: 12:30pm – 2:30pm

PREREQUISITE: None

COURSE CREDIT EXCLUSION: GL/EN/LIN 2605 6.0. PRIOR TO FALL 2009: AS/LING 1000 6.0.

DESCRIPTION: See course description for AP/LING 6.0A (Y).

AP/COGS/LING 2800 3.0M (W) – LANGUAGE AND MIND

INSTRUCTOR: TBA
OFFICE: TBA

DAY: Tuesday*
TIME: 2:30pm – 4:30pm

PREREQUISITE: None. *PRIOR TO FALL 2009: AS/LING 1000 6.0 or AS/PSYC 1010 6.0 or permission of the department.*

COURSE CREDIT EXCLUSION: *PRIOR TO FALL 2012: AP/LING 3800 3.0. PRIOR TO FALL 2009: AS/LING 3800 3.0.*

DESCRIPTION: This course explores how the structures of human language reflect the architecture of the human mind. Linguistics issues are related to topics in vision, philosophy, and psychology, among others. The course focuses primarily on internalist views of language, as exemplified in the generative tradition.

HH/PSYC 1010 6.0A (F) – INTRODUCTION TO PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday TIME: 11:30am – 2:30pm
PREREQUISITE: None COURSE CREDIT EXCLUSION: GL/PSYC 2510 6.0; <i>PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0</i>	
<p>DESCRIPTION: A survey of psychology introducing basic terms, concepts and methods. Included are topics such as biological bases of behaviour, learning, perception, motivation, cognition, child development, personality, and abnormal and social psychology.</p> <p>Note: This course is required for all students who intend to pursue additional HH/PSYC courses the 2000-, 3000- and 4000- levels. Students must pass the course with a minimum grade of C in order to pursue further studies in psychology.</p>	

HH/PSYC 1010 6.0A (Y) – INTRODUCTION TO PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 7:00pm - 10:00pm
PREREQUISITE: None COURSE CREDIT EXCLUSION: GL/PSYC 2510 6.0; <i>PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0</i>	
DESCRIPTION: See course description for HH/PSYC 1010 6.0A (F).	

HH/PSYC 1010 6.0B (Y) – INTRODUCTION TO PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 11:30am - 1:00pm
PREREQUISITE: None COURSE CREDIT EXCLUSION: GL/PSYC 2510 6.0; <i>PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0</i>	
DESCRIPTION: See course description for HH/PSYC 1010 6.0A (F).	

HH/PSYC 1010 6.0C (Y) – INTRODUCTION TO PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	TIME: ONLINE
PREREQUISITE: None COURSE CREDIT EXCLUSION: GL/PSYC 2510 6.0; <i>PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0</i>	
DESCRIPTION: See course description for HH/PSYC 1010 6.0A (F).	
<p>OTHER INFORMATION: This section of Introductory Psychology is by correspondence. Students who are in their first term at York and are making the transition from high school to university are strongly advised NOT to register in this section; a classroom course is strongly advised in this case. This section is meant primarily for mature and distance students, students whose schedules do not permit them to attend classes on campus on a regular basis, and students who are not Psychology majors but who want to take one or more Psychology courses.</p>	

HH/PSYC 1010 6.0D (Y) – INTRODUCTION TO PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 2:30pm - 5:30pm
PREREQUISITE: None COURSE CREDIT EXCLUSION: GL/PSYC 2510 6.0; <i>PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0</i>	
DESCRIPTION: See course description for HH/PSYC 1010 6.0A (F).	

HH/PSYC 1010 6.0E (Y) – INTRODUCTION TO PSYCHOLOGY**INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Thursday
TIME: 2:30pm - 5:30pm**PREREQUISITE:** None**COURSE CREDIT EXCLUSION:** GL/PSYC 2510 6.0; *PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0***DESCRIPTION:** See course description for HH/PSYC 1010 6.0A (F).**HH/PSYC 1010 6.0F (Y) – INTRODUCTION TO PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Wednesday
TIME: 11:30am - 2:30pm**PREREQUISITE:** None**COURSE CREDIT EXCLUSION:** GL/PSYC 2510 6.0; *PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0***DESCRIPTION:** See course description for HH/PSYC 1010 6.0A (F).**HH/PSYC 1010 6.0G (Y) – INTRODUCTION TO PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Tuesday and Thursday
TIME: 1:00pm - 2:30pm**PREREQUISITE:** None**COURSE CREDIT EXCLUSION:** GL/PSYC 2510 6.0; *PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0***DESCRIPTION:** See course description for HH/PSYC 1010 6.0A (F).**HH/PSYC 1010 6.0H (Y) – INTRODUCTION TO PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Friday
TIME: 2:30pm - 5:30pm**PREREQUISITE:** None**COURSE CREDIT EXCLUSION:** GL/PSYC 2510 6.0; *PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0***DESCRIPTION:** See course description for HH/PSYC 1010 6.0A (F).**HH/PSYC 1010 6.0M (W) – INTRODUCTION TO PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Monday and Wednesday
TIME: 11:30am - 2:30pm**PREREQUISITE:** None**COURSE CREDIT EXCLUSION:** GL/PSYC 2510 6.0; *PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0***DESCRIPTION:** See course description for HH/PSYC 1010 6.0A (F).**ACCESS SPECIFICATIONS:** Reserved for PSYC Majors (Winter). Enrollment not open until November/December 2018.

HH/PSYC 1010 6.0N (W) - INTRODUCTION TO PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 7:00pm - 10:00pm
PREREQUISITE: None COURSE CREDIT EXCLUSION: GL/PSYC 2510 6.0; <i>PRIOR TO SUMMER 2002: AK/PSYC 2410 6.0</i>	
DESCRIPTION: See course description for HH/PSYC 1010 6.0A (F).	
ACCESS SPECIFICATIONS: Reserved for PSYC Majors (Winter). Enrollment not open until November/December 2018.	

HH/PSYC 2260 3.0A (F) – COGNITION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 7:00pm – 10:00pm
PREREQUISITE: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C. COURSE CREDIT EXCLUSION: AK/PSYC 3135 3.00 (prior to Summer 2002), HH/PSYC 3260 3.00, GL/PSYC 3370 3.00	
DESCRIPTION: A survey of higher-order cognitive processes in humans. Topics include attention, memory, problem solving, thinking and language. Prerequisite: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C.	

HH/PSYC 2260 3.0M (W) – COGNITION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Friday TIME: 2:30pm – 5:30pm
PREREQUISITE: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C. COURSE CREDIT EXCLUSION: AK/PSYC 3135 3.00 (prior to Summer 2002), HH/PSYC 3260 3.00, GL/PSYC 3370 3.00	
DESCRIPTION: See course description for HH/PSYC 2260 3.0A (F).	

HH/PSYC 2260 3.0N (W) – COGNITION	
INSTRUCTOR: N. Park OFFICE: TBA	DAY: Wednesday TIME: 11:30am – 2:30pm
PREREQUISITE: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C. COURSE CREDIT EXCLUSION: AK/PSYC 3135 3.00 (prior to Summer 2002), HH/PSYC 3260 3.00, GL/PSYC 3370 3.00	
DESCRIPTION: See course description for HH/PSYC 2260 3.0A (F).	

AP/COGS/PHIL 2160 3.0M (W) – MINDS, BRAINS, AND MACHINES	
INSTRUCTOR: Jacob Beck OFFICE: S439 Ross	DAY: Monday and Wednesday* TIME: 10:30am - 11:30am
PREREQUISITE: None. COURSE CREDIT EXCLUSION: None. <i>PRIOR TO FALL 2009: AK/AS/PHIL 2160 3.0</i>	
DESCRIPTION: An introduction to the study of human cognition and the interdisciplinary field of cognitive science. Questions covered include: What is artificial intelligence? Is it possible that we will someday build computers that think? Does language affect thought? Do we think in language or pictures? How is conscious experience related to the brain?	

AP/PHIL 3260 3.0A (F) – PHILOSOPHY OF PSYCHOLOGY**INSTRUCTOR:** Kristin Andrews**DAY:** Wednesday**OFFICE:** S420 Ross**TIME:** 11:30am - 2:30pm**PREREQUISITE:** AP/PHIL 2160 3.0 or AP/PHIL 2240 3.0. *PRIOR TO FALL 2009: At least six credits in philosophy, including one of AK/AS/PHIL 2160 3.0 or AK/AS/PHIL 2240 3.0***COURSE CREDIT EXCLUSION:** None. *PRIOR TO SUMMER 2007: AK/PHIL 3260 3.0, AS/PHIL 3260 3.0***DESCRIPTION:** An examination of whether psychological research can help to answer traditional philosophical questions. Case studies may include: psychiatric and mental disorders, rational thought, animal cognition, the placebo effect, the nature of concepts, attribution theory, moral psychology, or consciousness.**AP/PHIL 3260 3.0M (W) – PHILOSOPHY OF PSYCHOLOGY****INSTRUCTOR:** Jagdish Hattiangadi**DAY:** Wednesday**OFFICE:** S414A Ross**TIME:** 11:30am - 2:30pm**PREREQUISITE:** AP/PHIL 2160 3.0 or AP/PHIL 2240 3.0. *PRIOR TO FALL 2009: At least six credits in philosophy, including one of AK/AS/PHIL 2160 3.0 or AK/AS/PHIL 2240 3.0***COURSE CREDIT EXCLUSION:** None. *PRIOR TO SUMMER 2007: AK/PHIL 3260 3.0, AS/PHIL 3260 3.0***DESCRIPTION:** See course description for AP/PHIL 3260 3.0A (F).**AP/PHIL 3750 3.0A (F) – PHILOSOPHY OF ARTIFICIAL INTELLIGENCE****INSTRUCTOR:** Muhammad-Ali Khalidi**DAY:** Tuesday and Thursday**OFFICE:** S438 Ross**TIME:** 1:00pm - 2:30pm**PREREQUISITE:** One of AP/PHIL 2160 3.00 or AP/PHIL 2240 3.00.*PRIOR TO FALL 2009: At least six credits in philosophy, including one of AK/PHIL 2240 3.00, AS/PHIL 2240 3.00 or AK/AS/PHIL 2160 3.00.***COURSE CREDIT EXCLUSION:** AK/PHIL 3001 3.00, AS/PHIL 3750 3.00.**DESCRIPTION:** An introduction to philosophical issues in Artificial Intelligence (AI). The goal is for students to be able to gain basic understanding of the cognitive architectures used by AI programmers, and reflect critically on research in AI from a philosophical perspective.**AP/PHIL 3750 3.0M (W) – PHILOSOPHY OF ARTIFICIAL INTELLIGENCE****INSTRUCTOR:** Regina Rini**DAY:** Tuesday and Thursday**OFFICE:** S416 Ross**TIME:** 11:30am - 1:00pm**PREREQUISITE:** One of AP/PHIL 2160 3.00 or AP/PHIL 2240 3.00.*PRIOR TO FALL 2009: At least six credits in philosophy, including one of AK/PHIL 2240 3.00, AS/PHIL 2240 3.00 or AK/AS/PHIL 2160 3.00.***COURSE CREDIT EXCLUSION:** AK/PHIL 3001 3.00, AS/PHIL 3750 3.00.**DESCRIPTION:** See course description for AP/PHIL 3750 3.0M (W).

AP/COGS 4750 6.0A (Y)– HONOURS THESIS IN COGNITIVE SCIENCE**INSTRUCTOR:** Students must arrange a faculty thesis supervisor, subject to departmental approval.**COURSE DIRECTOR:** Jacob Beck**OFFICE:** S439 Ross**DAY / TIME:** Decided upon by student and instructor**PREREQUISITE:** Permission of the course director.**COURSE CREDIT EXCLUSION:** None. *PRIOR TO FALL 2009: AS/PHIL 4750 6.0***DESCRIPTION:** Students carry out an individual piece of research in cognitive science in consultation with a thesis supervisor and write a thesis.**AP/COGS 4901 6.0A (Y) – HONOURS SEMINAR IN COGNITIVE SCIENCE****INSTRUCTOR:** Jacob Beck**OFFICE:** S439 Ross**DAY:** Wednesday**TIME:** 11:30am – 2:30pm**PREREQUISITE:** Students must be Cognitive Science majors and have successfully completed at least 84 credits in total.**COURSE CREDIT EXCLUSION:** None. *PRIOR TO FALL 2010: AP/COGS 4900 6.0. PRIOR TO FALL 2009: AS/COGS 4900 6.0.***DESCRIPTION:** This course is the capstone for students in the cognitive science honours BA program. Students will obtain a greater understanding of the work that cognitive scientists do, and how the theoretical background can be implemented in solving real-world problems and uncovering additional facts about the world. Students will be expected to produce a major work in cognitive science as well as demonstrate their knowledge of the applications of cognition science to many different areas of academia and industry.**Note: Students must be Cognitive Science majors and have successfully completed a minimum of 84 credits in total**

**B. LOWER-LEVEL COMPUTER SCIENCE, INFORMATION TECHNOLOGY,
LINGUISTICS, PHILOSOPHY, PSYCHOLOGY**
Take 6 credits from the following:

LE/EECS 1022 3.0A (F) – PROGRAMMING FOR MOBILE COMPUTING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday* TIME: 2:30pm – 4:30pm
PREREQUISITE: LE/EECS 1012 3.00. COURSE CREDIT EXCLUSION: LE/EECS 1021 3.00, LE/EECS 1020 3.00 (prior to Fall 2014), LE/CSE 1020 3.00 (prior to Fall 2014), SC/CSE 1020 3.00 (prior to Summer 2013), AP/ITEC 1620 3.00.	
DESCRIPTION: This course provides a first exposure to object-oriented programming and enhances student understanding of key computing skills such as reasoning about algorithms, designing user interfaces, and working with software tools. It uses problem-based approach to expose the underlying concepts and an experiential laboratory to implement them. A mature mobile software infrastructure (such as Java and the Android programming environment) is used to expose and provide context to the underlying ideas. Laboratory exercises expose students to a range of real-world problems with a view of motivating computational thinking and grounding the material covered in lectures.	

LE/EECS 1022 3.0M (W) – PROGRAMMING FOR MOBILE COMPUTING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday* TIME: 2:30pm – 4:30pm
PREREQUISITE: LE/EECS 1012 3.00. COURSE CREDIT EXCLUSION: LE/EECS 1021 3.00, LE/EECS 1020 3.00 (prior to Fall 2014), LE/CSE 1020 3.00 (prior to Fall 2014), SC/CSE 1020 3.00 (prior to Summer 2013), AP/ITEC 1620 3.00.	
DESCRIPTION: See course description for LE/EECS 1022 3.0A (F)	

LE/EECS 1022 3.0N (W) – PROGRAMMING FOR MOBILE COMPUTING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday* TIME: 10:30am – 12:30pm
PREREQUISITE: LE/EECS 1012 3.00. COURSE CREDIT EXCLUSION: LE/EECS 1021 3.00, LE/EECS 1020 3.00 (prior to Fall 2014), LE/CSE 1020 3.00 (prior to Fall 2014), SC/CSE 1020 3.00 (prior to Summer 2013), AP/ITEC 1620 3.00.	
DESCRIPTION: See course description for LE/EECS 1022 3.0A (F)	

LE/EECS 2001 3.0A (F) – INTRODUCTION TO THE THEORY OF COMPUTATION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday* TIME: 11:30am – 1:00pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS 1021 3.00 or LE/EECS 1022 3.00 or LE/EECS 1720 3.00 or LE/EECS 1030 3.00; LE/EECS 1028 3.00 or SC/MATH 1028 3.00 or LE/EECS 1019 3.00 or SC/MATH 1019 3.00. COURSE CREDIT EXCLUSION: Previously offered as: LE/CSE 2001 3.00. PRIOR TO SUMMER 2013: SC/CSE 2001 3.00	
DESCRIPTION: Introduction to the theory of computing, including automata theory, formal languages and Turing machines; theoretical models and their applications in various fields of computer science. The emphasis is on practical applications of the theory and concepts rather than formal rigour.	

LE/EECS 2001 3.0E (F) – INTRODUCTION TO THE THEORY OF COMPUTATION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday* TIME: 1:00pm – 2:30pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS 1021 3.00 or LE/EECS 1022 3.00 or LE/EECS 1720 3.00 or LE/EECS 1030 3.00; LE/EECS 1028 3.00 or SC/MATH 1028 3.00 or LE/EECS 1019 3.00 or SC/MATH 1019 3.00. COURSE CREDIT EXCLUSION: Previously offered as: LE/CSE 2001 3.00. PRIOR TO SUMMER 2013: SC/CSE 2001 3.00	
DESCRIPTION: See course description for LE/EECS 2001 3.0A (F).	

LE/EECS 2001 3.0M (W) – INTRODUCTION TO THE THEORY OF COMPUTATION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday* TIME: 10:00am – 11:30am
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS 1021 3.00 or LE/EECS 1022 3.00 or LE/EECS 1720 3.00 or LE/EECS 1030 3.00; LE/EECS 1028 3.00 or SC/MATH 1028 3.00 or LE/EECS 1019 3.00 or SC/MATH 1019 3.00. COURSE CREDIT EXCLUSION: Previously offered as: LE/CSE 2001 3.00. PRIOR TO SUMMER 2013: SC/CSE 2001 3.00	
DESCRIPTION: See course description for LE/EECS 2001 3.0A (F).	

LE/EECS 2001 3.0Z (W) – INTRODUCTION TO THE THEORY OF COMPUTATION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday* TIME: 2:30pm – 4:00pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS 1021 3.00 or LE/EECS 1022 3.00 or LE/EECS 1720 3.00 or LE/EECS 1030 3.00; LE/EECS 1028 3.00 or SC/MATH 1028 3.00 or LE/EECS 1019 3.00 or SC/MATH 1019 3.00. COURSE CREDIT EXCLUSION: Previously offered as: LE/CSE 2001 3.00. PRIOR TO SUMMER 2013: SC/CSE 2001 3.00	
DESCRIPTION: See course description for LE/EECS 2001 3.0A (F).	

LE/EECS 2030 3.0A (F) – ADVANCED OBJECT ORIENTED PROGRAMMING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday* TIME: 4:00pm – 5:30pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS1021 3.00 or LE/EECS 1020 (prior to Fall 2015) 3.00 or LE/EECS1022 3.00 or LE/EECS 1720 3.00. COURSE CREDIT EXCLUSION: AP/ITEC 2620 3.00. Previously offered as: LE/EECS1030 3.00, LE/CSE 1030 3.00.	
DESCRIPTION: This course continues the separation of concern theme introduced in LE/EECS 1020 3.00 and LE/EECS1021 3.00. While 1020 and 1021 focuses on the client concern, this course focuses on the concern of the implementer. Hence, rather than using an API (Application Programming Interface) to build an application, the student is asked to implement a given API. Topics include implementing classes (non-utilities, delegation within the class definition, documentation and API generation, implementing contracts), aggregations (implementing aggregates versus compositions and implementing collections), inheritance hierarchies (attribute visibility, overriding methods, abstract classes versus interfaces, inner classes); applications of aggregation and inheritance in concurrent programming and event-driven programming; recursion; searching and sorting including quick and merge sorts); stacks and queues; linked lists; binary trees.	

LE/EECS 2030 3.0B (F) – ADVANCED OBJECT ORIENTED PROGRAMMING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday* TIME: 1:00pm – 2:30pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS1021 3.00 or LE/EECS 1020 (prior to Fall 2015) 3.00 or LE/EECS1022 3.00 or LE/EECS 1720 3.00. COURSE CREDIT EXCLUSION: AP/ITEC 2620 3.00. Previously offered as: LE/EECS1030 3.00, LE/CSE 1030 3.00.	
DESCRIPTION: See course description for LE/EECS 2030 3.0A (F)	

LE/EECS 2030 3.0E (F) – ADVANCED OBJECT ORIENTED PROGRAMMING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday* TIME: 1:00pm – 2:30pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS1021 3.00 or LE/EECS 1020 (prior to Fall 2015) 3.00 or LE/EECS1022 3.00 or LE/EECS 1720 3.00. COURSE CREDIT EXCLUSION: AP/ITEC 2620 3.00. Previously offered as: LE/EECS1030 3.00, LE/CSE 1030 3.00.	
DESCRIPTION: See course description for LE/EECS 2030 3.0A (F)	

LE/EECS 2030 3.0M (W) – ADVANCED OBJECT ORIENTED PROGRAMMING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday* TIME: 2:30pm - 4:00pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS1021 3.00 or LE/EECS 1020 (prior to Fall 2015) 3.00 or LE/EECS1022 3.00 or LE/EECS 1720 3.00. COURSE CREDIT EXCLUSION: AP/ITEC 2620 3.00. Previously offered as: LE/EECS1030 3.00, LE/CSE 1030 3.00.	
DESCRIPTION: See course description for LE/EECS 2030 3.0A (F)	

LE/EECS 2030 3.0Z (W) – ADVANCED OBJECT ORIENTED PROGRAMMING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday* TIME: 4:00pm – 7:00pm
PREREQUISITE: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS1021 3.00 or LE/EECS 1020 (prior to Fall 2015) 3.00 or LE/EECS1022 3.00 or LE/EECS 1720 3.00. COURSE CREDIT EXCLUSION: AP/ITEC 2620 3.00. Previously offered as: LE/EECS1030 3.00, LE/CSE 1030 3.00.	
DESCRIPTION: See course description for LE/EECS 2030 3.0A (F)	

AP/ITEC 1000 3.0A (F) – INTRODUCTION TO INFORMATION TECHNOLOGIES	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 7:00pm – 10:00 pm
COURSE CREDIT EXCLUSION: GL/ITEC 1011 3.0. <i>PRIOR TO FALL 2009: AK/AS/ITEC 1000 3.0, AK/AS/ITEC 1011 3.0, GL/ITEC 1011 3.0.</i>	
<p>DESCRIPTION: This course introduces basic concepts of contemporary information technologies (computers, networks, telecommunications) used to process and store information in organizations. The course material includes both hardware and software components, which students compare, select and combine to solve information problems.</p> <p><i>NCR Note: No credit will be retained for this course for students who have successfully completed or who are currently enrolled in any computer science course at the 2000-level or higher.</i></p>	

AP/ITEC 1000 3.0B (F) – INTRODUCTION TO INFORMATION TECHNOLOGIES	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 4:00pm – 7:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1011 3.0. <i>PRIOR TO FALL 2009: AK/AS/ITEC 1000 3.0, AK/AS/ITEC 1011 3.0, GL/ITEC 1011 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1000 3.0A (F).	

AP/ITEC 1000 3.0M (W) – INTRODUCTION TO INFORMATION TECHNOLOGIES	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 7:00pm – 10:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1011 3.0. <i>PRIOR TO FALL 2009: AK/AS/ITEC 1000 3.0, AK/AS/ITEC 1011 3.0, GL/ITEC 1011 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1000 3.0A (F).	

AP/ITEC 1000 3.0N (W) – INTRODUCTION TO INFORMATION TECHNOLOGIES	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Friday TIME: 11:30am – 2:30pm
COURSE CREDIT EXCLUSION: GL/ITEC 1011 3.0. <i>PRIOR TO FALL 2009: AK/AS/ITEC 1000 3.0, AK/AS/ITEC 1011 3.0, GL/ITEC 1011 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1000 3.0A (F).	

AP/ITEC 1010 3.0A (F) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 4:00pm – 7:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
<p>DESCRIPTION: The value and importance of information to organizations, how it is used, stored and processed, emphasizes the uses of information technologies of various kinds, the benefits of the technologies, and the associated costs and problems pertaining to the use of desktop applications.</p>	

AP/ITEC 1010 3.0B (F) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 7:00pm – 10:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1010 3.0A (F).	

AP/ITEC 1010 3.0C (F) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 11:30am – 2:30pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1010 3.0A (F).	

AP/ITEC 1010 3.0M (W) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 11:30am – 2:30pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1010 3.0A (F).	

AP/ITEC 1010 3.0N (W) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 4:00pm – 7:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1010 3.0A (F).	

AP/ITEC 1010 3.0O (W) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 7:00pm – 10:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1010 3.0A (F).	

AP/ITEC 1010 3.0P (W) – INFORMATION AND ORGANIZATIONS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 4:00pm – 7:00pm
COURSE CREDIT EXCLUSION: GL/ITEC 1010 3.0. <i>PRIOR TO FALL 2009: AK/ITEC 1010 3.0, GL/ITEC 1010 3.0.</i>	
DESCRIPTION: See course description for AP/ITEC 1010 3.0A (F).	

AP/LING 2120 3.0M (W) – PHONOLOGY 1: ANALYSIS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday TIME: 1:00pm – 2:30pm
PREREQUISITE: AP/LING 1000 6.0 with a minimum grade of C and AP/LING 2110 3.0, or permission of the Department.	
COURSE CREDIT EXCLUSION: GL/EN/LIN 3601 3.00; AS/LING 2120 3.00.	
DESCRIPTION: This course provides students with the opportunity to develop the analytical skills necessary for more advanced phonological work. Emphasis throughout is on practical analysis and argumentation, drawing on data from a wide variety of languages.	

AP/LING 2130 3.0A (F) – MORPHOLOGY 1: ANALYSIS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday TIME: 4:00pm - 5:30pm
PREREQUISITE: AP/LING 1000 6.0 with a minimum grade of C; <i>PRIOR TO FALL 2009: AS/LING 1000 6.0 with a minimum grade of C</i>	
COURSE CREDIT EXCLUSION: None; <i>PRIOR TO FALL 2009: AS/LING 2130 3.0</i>	
DESCRIPTION: This course provides an introduction to the nature and organization of morphological patterns in human languages. Students are exposed to a range of cross-linguistic data, with emphasis being placed on how morphological theory accounts for this data.	

AP/LING 2140 3.0M (W) – SYNTAX 1: ANALYSIS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 1:00pm – 2:30pm
PREREQUISITE: AP/LING 1000 6.00 with a grade of at least C; AP/LING 2130 3.00.	
DESCRIPTION: This course offers an introduction to syntactic analysis, building on concepts acquired in AP/LING 1000 6.0 and AP/LING 2130 3.0, and paves the way for AP/LING 3140 3.0. Topics include lexical and functional categories, morphosyntactic features, theta-roles and argument structure, the structure of phrases, constituency, and syntactic relationships within the clause.	

AP/PHIL 2100 3.0A (F) – INTRODUCTION TO LOGIC	
INSTRUCTOR: Judy Pelham OFFICE: S440 Ross	DAY: Monday* TIME: 2:30pm – 4:30pm
PREREQUISITES: None	
COURSE CREDIT EXCLUSION: GL/PHIL 2640 6.0, GL/PHIL 2690 3.0. <i>PRIOR TO FALL 2009: AK/PHIL 2100 3.0. PRIOR TO SUMMER 2007: AS/PHIL 2100 3.0.</i>	
DESCRIPTION: Logic, in the philosophical tradition, is the study of what makes arguments valid. It aims to distinguish correct reasoning from faulty reasoning. This course presents the basic elements of modern symbolic logic for the beginning student.	

AP/PHIL 2100 3.0M (W) – INTRODUCTION TO LOGIC	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday* TIME: 2:30pm – 4:30pm
PREREQUISITES: None	
COURSE CREDIT EXCLUSION: GL/PHIL 2640 6.0, GL/PHIL 2690 3.0. <i>PRIOR TO FALL 2009: AK/PHIL 2100 3.0. PRIOR TO SUMMER 2007: AS/PHIL 2100 3.0.</i>	
DESCRIPTION: See course description for AP/PHIL 2100 3.0A (F).	

AP/PHIL 2240 3.0A (F) – INTRODUCTION TO THE PHILOSOPHY OF MIND	
INSTRUCTOR: Brian Huss OFFICE: S414 Ross	DAY: Tuesday and Thursday TIME: 1:00pm – 2:30pm
COURSE CREDIT EXCLUSION: None. <i>PRIOR TO FALL 2009: AS/PHIL 2240 3.0, AK/PHIL 2240 3.0.</i>	
DESCRIPTION: An introduction to metaphysical theories the relationship between the mind and the body. We examine Descartes' mind-body dualism as well as 20 th century theories including: behaviourism, the identity theory, machine and causal functionalism, instrumentalism, eliminativism, and emergentism.	

HH/PSYC 2020 6.0A (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 7:00pm – 10:00pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: This course is designed to provide the student with the statistical skills necessary to analyze and understand the data from psychological research. Topics covered include: basic concepts of measurement, measures of central tendency, variability and relationship, selected inferential statistics will be covered (for example t-tests, ANOVAs, correlation and regression), nonparametric tests (χ^2 and tests of ordinal data). Students should have a reasonably good working knowledge of high school mathematics.	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0B (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0C (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 11:30am – 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0D (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 11:30am – 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0E (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Friday TIME: 11:30am – 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0F (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 10:30am – 12:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0G (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 2:30pm – 4:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2020 6.0H (Y) – STATISTICAL METHODS I AND II	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 11:30am - 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: See notes below.	
DESCRIPTION: See course description for HH/PSYC 2020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

NOTE 1: Students who discontinue registration in Psychology 2020 6.0 at the end of the Fall Term may not petition for credit for a half-course in Statistics.

Course Credit Exclusions (CCE) may not be substituted for AK/AS/HH/SC/PSYC 2020 6.0 to satisfy Psychology degree requirements unless approved as acceptable substitutes by the department and Faculty as listed below. Students cannot take PSYC 2020 6.0 if they have taken another Statistics course (in any Department/Faculty). See the University Calendar for the list of Course Credit Exclusions.

NOTE 2: ONLY COURSES SPECIFIED IN THE FOLLOWING LIST MAY BE SUBSTITUTED FOR THE PSYC 2020 6.0 REQUIREMENT (SIX CREDITS ARE REQUIRED FOR SUBSTITUTION, EXCEPT AS INDICATED BELOW):

HH/PSYC 2021 3.0 and 2022 3.0
HH/PSYC 2510 3.0 / 3110 3.0
AP/ECON 2500 3.0 / 3500 3.0*
AP/ECON 3470 3.0/ 3480 3.0*
HH/KINE 2050 3.0/ 3150 3.0
SC/MATH 2560 3.0/ 2570 3.0
SC/MATH 2565 3.0 - NOT A SUBSTITUTION – CCE ONLY
AP/POLS 3300 6.0* - NOT A SUBSTITUTION – CCE ONLY
AP/SOCI 3030 6.0* - NOT A SUBSTITUTION – CCE ONLY

PLEASE BE ADVISED THAT ALL COURSES LISTED IN “NOTE 3” ARE ALSO COURSE CREDIT EXCLUSIONS FOR PSYC 2020 6.0.

NOTE 3: ONLY COURSES SPECIFIED IN THE FOLLOWING LIST MAY BE SUBSTITUTED FOR THE PSYC 2021 3.0 REQUIREMENT (THREE CREDITS ARE REQUIRED FOR SUBSTITUTION):

HH/PSYC 2020 6.0
HH/PSYC 2510 3.0
GL/PSYC 2530 3.0
SC/BIOL 2060 3.0 (Prior to Summer 2000 – 3090 3.0)
AP/ECON 2500 3.0*
AP/ECON 3470 3.0*
SC/KINE 2050 3.0
SC/MATH 1131 3.0 - UNTIL F/W 2006
SC/MATH 2500 3.0 - NOT A SUBSTITUTION – CCE ONLY
SC/MATH 2560 3.0
AP/POLS 3300 6.0* - NOT A SUBSTITUTION – CCE ONLY
AP/SOCI 3030 6.0* - NOT A SUBSTITUTION – CCE ONLY

NOTE 4: ONLY COURSES SPECIFIED IN THE FOLLOWING LIST MAY BE SUBSTITUTED FOR THE PSYC 2022 3.0 REQUIREMENT (THREE CREDITS ARE REQUIRED FOR SUBSTITUTION):

HH/PSYC 2020 6.0
HH/PSYC 3110 3.0
AP/ECON 3500 3.0*
AP/ECON 3480 3.0*
HH/KINE 3150 3.0
SC/MATH 2570 3.0
AP/POLS 3300 6.0* - NOT A SUBSTITUTION – CCE ONLY
AP/SOCI 3030 6.0* - NOT A SUBSTITUTION – CCE ONLY

* Not appropriate for Science students

HH/PSYC 2021 3.0A (F) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: The goal of this course is statistical literacy and competence in choosing and carrying out statistical analyses appropriate to different research questions. Students will gain a better understanding of the experimental findings to which they are exposed in other courses. They will also be able to better interpret and critically evaluate research findings reported in the media. The course will provide top preparation for PSYC 2022, PSYC 2030, PSYC 3030 and PSYC 4000 or PSYC 4170. It is advantageous for students to take this course as early as possible in their course of study.	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2021 3.0B (F) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Friday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2021 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2021 3.0C (F) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 8:30am - 11:30am
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2021 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2021 3.0M (W) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 7:00pm – 10:00pm
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2021 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2021 3.0N (W) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 2:30pm – 4:00pm
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2021 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology, Business and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2021 3.0O (W) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 8:30am – 11:30am
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2021 3.0A (F).	
ACCESS SPECIFICATIONS: Reserved for Nursing students ONLY.	

HH/PSYC 2021 3.0P (W) – STATISTICAL METHODS I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 11:30am – 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0, HH/PSYC 2410 6.0, or GL/PSYC 2510 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 2020 6.0, SC/BIOL 2060 3.0, AS/ECON 2500 3.0, AK/ECON 3470 3.0, AS/HH/SC/KINE 2050 3.0, AK/AS/SC/MATH 2500 3.0, AK/AS/SC/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0, GL/PSYC 2530 3.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 2510 3.0, PRIOR TO SUMMER 2000: SC/BIOL 3090 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2021 3.0A (F).	
ACCESS SPECIFICATIONS: Reserved for Nursing students ONLY.	

HH/PSYC 2030 3.0A (F) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 7:00pm – 10:00pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0.</i>	
DESCRIPTION: An introduction to the use of experimental and non-experimental research methods by psychologists in the study of behaviour. Topics such as research design, external and internal validity, sources of bias, APA style and ethics are considered. <i>NCR note: No credit will be retained for this course for students who have passed or are taking AK/AS/HH/SC/PSYC 3010 3.0 or AK/HH/PSYC 3180 3.0 (prior to Summer 2002).</i>	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2030 3.0B (F) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2030 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2030 3.0C (F) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2030 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2030 3.0D (F) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Friday TIME: 11:30am - 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 2030 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2030 3.0M (W) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Friday TIME: 11:30am - 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0</i>	
DESCRIPTION: See course description for HH/PSYC 2030 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2030 3.0N (W) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 2:30pm-5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0</i>	
DESCRIPTION: See course description for HH/PSYC 2030 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2030 3.0O (W) – INTRODUCTION TO RESEARCH METHODS	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 OR HH/PSYC 2410 6.0, with a minimum grade of C. One of HH/PSYC 2020 6.0, HH/PSYC 2021 3.0, or HH/PSYC 2510 3.0 COURSE CREDIT EXCLUSION: EN/ENVS 3009 3.0, AS/SC/KINE 2049 4.0, GL/PSYC 2520 3.0, <i>PRIOR TO SUMMER 2003: ES/ENVS 2010 6.0, PRIOR TO SUMMER 2002: AK/PSYC 2530 3.0</i>	
DESCRIPTION: See course description for HH/PSYC 2030 3.0A (F).	
ACCESS SPECIFICATIONS: All spaces are held for Psychology and Cognitive Science majors/minors.	

C. MID-LEVEL COMPUTER SCIENCE, LINGUISTICS, PHILOSOPHY, PSYCHOLOGY

Take 9 credits from the following,
and including at least two different disciplines (departments):

LE/EECS 2011 3.0A (F) – FUNDAMENTALS OF DATA STRUCTURES

INSTRUCTOR: TBA

DAY: Tuesday and Thursday

OFFICE: TBA

TIME: 5:30pm – 8:30pm

PREREQUISITE: General Prerequisites, LE/CSE 1019 3.00 or SC/MATH 1019 3.00. Prior to Summer 2013: SC/CSE 1019 3.00 or SC/MATH 1019 3.0 Non-majors may apply to the Undergraduate Programme Director for special consideration.

COURSE CREDIT EXCLUSION: LE/CSE 20111 3.00, AK/AS/SC/CSE 2011 3.00, AK/AS/SC/COSC 2011 3.00

DESCRIPTION: This course discusses the fundamental data structures commonly used in the design of algorithms. At the end of this course, students will know the classical data structures, and master the use of abstraction, specification and program construction using modules. Furthermore, students will be able to apply these skills effectively in the design and implementation of algorithms. Topics covered may include the following:

- Review of primitive data types and abstract data type — arrays, stacks, queues and lists
- Searching and sorting; a mixture of review and new algorithms
- Priority queues
- Trees: threaded, balanced (AVL-, 2-3-, and/or B-trees), tries
- Graphs: representations; transitive closure; graph traversals; spanning trees; minimum path; flow problems

LE/EECS 2011 3.0E (F) – FUNDAMENTALS OF DATA STRUCTURES

INSTRUCTOR: TBA

DAY: Tuesday and Thursday

OFFICE: TBA

TIME: 9:30am - 11:00am

PREREQUISITE: General Prerequisites, LE/CSE 1019 3.00 or SC/MATH 1019 3.00. Prior to Summer 2013: SC/CSE 1019 3.00 or SC/MATH 1019 3.0 Non-majors may apply to the Undergraduate Programme Director for special consideration.

COURSE CREDIT EXCLUSION: LE/CSE 20111 3.00, AK/AS/SC/CSE 2011 3.00, AK/AS/SC/COSC 2011 3.00

DESCRIPTION: See course description for LE/EECS 2011 3.0A (F).

LE/EECS 2011 3.0M (W) – FUNDAMENTALS OF DATA STRUCTURES

INSTRUCTOR: TBA

DAY: Monday and Wednesday

OFFICE: TBA

TIME: 11:30am – 1:00pm

PREREQUISITE: General Prerequisites, LE/CSE 1019 3.00 or SC/MATH 1019 3.00. Prior to Summer 2013: SC/CSE 1019 3.00 or SC/MATH 1019 3.0 Non-majors may apply to the Undergraduate Programme Director for special consideration.

COURSE CREDIT EXCLUSION: LE/CSE 20111 3.00, AK/AS/SC/CSE 2011 3.00, AK/AS/SC/COSC 2011 3.00

DESCRIPTION: See course description for LE/EECS 2011 3.0A (F).

LE/EECS 2011 3.0N (W) – FUNDAMENTALS OF DATA STRUCTURES	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday TIME: 4:00pm – 5:30pm
PREREQUISITE: General Prerequisites, LE/CSE 1019 3.00 or SC/MATH 1019 3.00. Prior to Summer 2013: SC/CSE 1019 3.00 or SC/MATH 1019 3.0 Non-majors may apply to the Undergraduate Programme Director for special consideration.	
COURSE CREDIT EXCLUSION: LE/CSE 20111 3.00, AK/AS/SC/CSE 2011 3.00, AK/AS/SC/COSC 2011 3.00	
DESCRIPTION: See course description for LE/EECS 2011 3.0A (F).	

LE/EECS 2011 3.0Z (W) – FUNDAMENTALS OF DATA STRUCTURES	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday and Thursday TIME: 1:00pm – 2:30pm
PREREQUISITE: General Prerequisites, LE/CSE 1019 3.00 or SC/MATH 1019 3.00. Prior to Summer 2013: SC/CSE 1019 3.00 or SC/MATH 1019 3.0 Non-majors may apply to the Undergraduate Programme Director for special consideration.	
COURSE CREDIT EXCLUSION: LE/CSE 20111 3.00, AK/AS/SC/CSE 2011 3.00, AK/AS/SC/COSC 2011 3.00	
DESCRIPTION: See course description for LE/EECS 2011 3.0A (F).	

LE/EECS 3401 3.0A (F) – INTRODUCTION TO ARTIFICIAL INTELLIGENCE AND LOGIC PROGRAMMING	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday TIME: 1:00pm - 2:30pm
PREREQUISITE: MATH 1090 3.0; a cumulative grade point average of 4.5 or better overall completed major computer science courses, including SC/CSE 1019 3.0	
COURSE CREDIT EXCLUSION: AK/AS/SC/COSC 3401 3.00, LE/SC/CSE3401 3.00, LE/SC/CSE 3402 3.00.	
DESCRIPTION: "Artificial Intelligence (AI) deals with how to build systems that can operate in an intelligent fashion. In this course, we examine fundamental concepts in AI: knowledge representation and reasoning, search, constraint satisfaction, reasoning under uncertainty, etc. The course also introduces logic programming, a programming paradigm based on predicate logic, where one specifies problems in a declarative way and one can use the language to search for a solution. Students will learn how to develop programs in Prolog to solve AI problems. The course covers the following topics:1) Introduction to Artificial Intelligence, intelligent agents.2) Logical representations, first-order logic syntax and semantics, use in knowledge representation.3) Basics of logic programming and Prolog, syntax, backchaining procedure.4) Inference in first order logic, unification, resolution.5) Reasoning with Horn theories, SLDNF resolution, Prolog control flow, backtracking, closed world assumption, negation as failure.6) Prolog lists, arithmetic.7) Uninformed search.8) Informed search.9) Constraint satisfaction and backtracking search.10) Game/adversarial search.11) Uncertain reasoning, Bayes Nets.	

AP/ITEC 3230 3.0A (F) – DESIGNING USER INTERFACES**INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Monday
TIME: 7:00pm – 10:00pm**PREREQUISITE:** General prerequisites.**COURSE CREDIT EXCLUSION:** SC/CSE 3461 3.0. *PRIOR TO FALL 2009: AK/ITEC 3230 3.0, AK/AS/ITEC 3461 3.0, AK/AS/SC/COSC 3461 3.0, AK/AS/SC/CSE 3461 3.0***DESCRIPTION:** This course examines a range of topics in the analysis and design of interfaces and human-computer interaction. Focusing on the human perspective, the course will discuss improving interaction with computers and reducing the possible mismatch between human and machine.*Note: This course will not count for computer science major or minor credit.***AP/ITEC 3230 3.0M (W) – DESIGNING USER INTERFACES****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Tuesday
TIME: 7:00pm - 10:00pm**PREREQUISITE:** General prerequisites.**COURSE CREDIT EXCLUSION:** SC/CSE 3461 3.0. *PRIOR TO FALL 2009: AK/ITEC 3230 3.0, AK/AS/ITEC 3461 3.0, AK/AS/SC/COSC 3461 3.0, AK/AS/SC/CSE 3461 3.0***DESCRIPTION:** See description for AP/ITEC 3230 3.0A (F).**AP/LING 3120 3.0A (F) – PHONOLOGY 2: THEORY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Monday & Wednesday
TIME: 1:00pm – 2:30pm**PREREQUISITE:** AP/LING 2110 3.00 and AP/LING 2120 3.00 or equivalent with grade of C or better. *PRIOR TO FALL 2009: AS/LING 2110 3.0 and AS/LING 2120 3.0, or equivalent.***COURSE CREDIT EXCLUSION:** None. *PRIOR TO FALL 2009: AS/LING 3120 3.0***DESCRIPTION:** This course builds on the skills acquired in AP/LING 2120 3.00. Students will continue with problem sets from a variety of languages, while being introduced to key issues in current phonological theory.**AP/LING 3140 3.0M (W) – SYNTAX 2: THEORY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Tuesday and Thursday
TIME: 1:00pm - 2:30pm**PREREQUISITE:** AP/LING 2140 3.00 or equivalent with a grade of C or better**COURSE CREDIT EXCLUSION:** None**DESCRIPTION:** This course focuses on core aspects of syntactic theory from a Minimalist perspective. Concepts covered in AP/LING 2140 3.00 are assumed throughout. Topics discussed include argument structure, VP shells, properties of functional categories, Case theory, head and XP movement, and DP structure, among others.

AP/LING 3150 3.0A (F) – SEMANTICS**INSTRUCTOR:** TBA**DAY:** Tuesday and Thursday**OFFICE:** TBA**TIME:** 1:00pm – 2:30pm**PREREQUISITE:** AP/LING 1000 6.00 or AP/LING 2060 6.00, or permission of the department.**COURSE CREDIT EXCLUSION:** GL/EN/LIN 3611 3.00.

DESCRIPTION: This course is an introduction to topics in formal semantics. The emphasis is on providing students with an understanding of a wide range of semantic phenomena by adopting a truth-conditional account of meaning using a limited formal apparatus. Topics covered include propositional and first order logic, modality and possible worlds, definite and indefinite descriptions, event semantics and tense and aspect.

AP/LING 3210 3.0M (W) – FIRST LANGUAGE ACQUISITION**INSTRUCTOR:** TBA**DAY:** Monday and Wednesday**OFFICE:** TBA**TIME:** 11:30am – 1:00pm**PREREQUISITE:** AP/LING 1000 6.0 or AP/LING 3220 3.0. *PRIOR TO FALL 2009: AS/LING 1000 6.0 or AS/LING 3220 3.0***COURSE CREDIT EXCLUSION:** None. *PRIOR TO FALL 2009: AS/LING 3210 3.0.*

DESCRIPTION: This course provides an introduction to children's acquisition of linguistic knowledge, including lexical, morphological, phonological, syntactic, and pragmatic development, and familiarizes students with fundamental issues in current theoretical models of language acquisition.

AP/LING 3220 3.0A (F) – PSYCHOLINGUISTICS (Cross-listed to AP/PSYC 3290)**INSTRUCTOR:** TBA**DAY:** Monday and Wednesday**OFFICE:** TBA**TIME:** 11:30am – 1:00pm**PREREQUISITE:** HH/PSYC 1010 6.00, with a minimum grade of C, or AP/LING 1000 6.00. *PRIOR TO FALL 2009: AS/LING 1000 6.0 or AS/LING 3220 3.0***COURSE CREDIT EXCLUSION:** None. *PRIOR TO FALL 2009: AS/LING 3210 3.0.*

DESCRIPTION: This course is a survey of psycholinguistic research and theory. Topics chosen from the following: introduction to language structure, biological basis for language, speech perception, sentence processing, speech production, relation of language and thought, language acquisition and atypical language.

AP/LING 3220 3.0M (W) – PSYCHOLINGUISTICS (Cross-listed to AP/PSYC 3290)**INSTRUCTOR:** TBA**DAY:** Monday**OFFICE:** TBA**TIME:** 2:30pm – 5:30pm**PREREQUISITE:** HH/PSYC 1010 6.00, with a minimum grade of C, or AP/LING 1000 6.00. *PRIOR TO FALL 2009: AS/LING 1000 6.0 or AS/LING 3220 3.0***COURSE CREDIT EXCLUSION:** None. *PRIOR TO FALL 2009: AS/LING 3210 3.0.*

DESCRIPTION: See course description for AP/LING 3220 3.0A (F).

AP/PHIL 3265 3.0A (F) – PHILOSOPHY OF MIND**INSTRUCTOR:** Alexandru Manafu
OFFICE: S414A Ross**DAY:** Tuesday and Thursday
TIME: 10:00am - 11:30am**PREREQUISITE:** AP/PHIL 2160 3.0 or AP/PHIL 2240 3.0. *PRIOR TO FALL 2009: At least six credits in philosophy including one of: AK/AS/PHIL 2160 3.0, AK/PHIL 2240 3.0 or AS/PHIL 2240 3.0.***COURSE CREDIT EXCLUSION:** GL/PHIL 3657 3.0. *PRIOR TO FALL 2009: AS/PHIL 3260 3.0), AS/PHIL 3265 3.0.***DESCRIPTION:** Topics covered include the ontological status of the mind, the nature of mental causation, consciousness and its relation to our status as rational persons equipped with free will. Other possible questions include: Is language necessary for thought? Can some nonhuman animals think? What is the relationship between emotions and rationality?**HH/PSYC 2110 3.0A (F) – DEVELOPMENTAL PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Tuesday
TIME: 2:30pm – 5:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3240 3.0, GL/PSYC 3300 3.0.**DESCRIPTION:** This course considers physical, intellectual, emotional and social development from birth through adolescence and the impact of the interaction of these various aspects of development upon the individual as a whole.**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2110 3.0B (F) – DEVELOPMENTAL PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Friday
TIME: 11:30am – 2:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3240 3.0, GL/PSYC 3300 3.0.**DESCRIPTION:** See course description for HH/PSYC 2110 3.0A (F).**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2110 3.0C (F) – DEVELOPMENTAL PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Wednesday
TIME: 11:30am – 2:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3240 3.0, GL/PSYC 3300 3.0.**DESCRIPTION:** See course description for HH/PSYC 2110 3.0A (F).**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2110 3.0M (W) – DEVELOPMENTAL PSYCHOLOGY****INSTRUCTOR:** TBA
OFFICE: TBA**DAY:** Friday
TIME: 11:30am – 2:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3240 3.0, GL/PSYC 3300 3.0.

DESCRIPTION: See course description for HH/PSYC 2110 3.0A (F).

ACCESS SPECIFICATIONS: Most spaces are held for Psychology and Cognitive Science majors/minors.

HH/PSYC 2110 3.0N (W) – DEVELOPMENTAL PSYCHOLOGY

INSTRUCTOR: TBA

DAY: Wednesday

OFFICE: TBA

TIME: 2:30pm – 5:30pm

PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C.

COURSE CREDIT EXCLUSION: HH/PSYC 3240 3.0, GL/PSYC 3300 3.0.

DESCRIPTION: See course description for HH/PSYC 2110 3.0A (F).

ACCESS SPECIFICATIONS: Most spaces are held for Psychology and Cognitive Science majors/minors.

HH/PSYC 2120 3.0A (F) – SOCIAL PSYCHOLOGY

INSTRUCTOR: TBA

DAY: Wednesday

OFFICE: TBA

TIME: 11:30am – 2:30pm

PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C

COURSE CREDIT EXCLUSION: AK/PSYC 3210 3.0, GL/PSYC 3660 3.0, AK/PSYC 3700C 3.0.

DESCRIPTION: This course reviews the theories, methods and empirical evidence in the scientific study of human social behaviour. The aim is to elucidate social psychological processes through the examination of areas such as social influence, attribution, attitudes and stereotyping.

ACCESS SPECIFICATIONS: Most spaces are held for Psychology, Business and Society, Law and Society, Cognitive Science and Communication Studies majors/minors.

HH/PSYC 2120 3.0B (F) – SOCIAL PSYCHOLOGY

INSTRUCTOR: TBA

DAY: Thursday

OFFICE: TBA

TIME: 8:30am - 11:30am

PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C

COURSE CREDIT EXCLUSION: AK/PSYC 3210 3.0, GL/PSYC 3660 3.0, AK/PSYC 3700C 3.0.

DESCRIPTION: See course description for HH/PSYC 2120 3.0A (F).

ACCESS SPECIFICATIONS: Most spaces are held for Psychology, Business and Society, Law and Society, Cognitive Science and Communication Studies majors/minors.

HH/PSYC 2120 3.0C (F) – SOCIAL PSYCHOLOGY

INSTRUCTOR: W. Struthers

DAY: Tuesday

OFFICE: TBA

TIME: 8:30am - 11:30am

PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C

COURSE CREDIT EXCLUSION: AK/PSYC 3210 3.0, GL/PSYC 3660 3.0, AK/PSYC 3700C 3.0.

DESCRIPTION: See course description for HH/PSYC 2120 3.0A (F).

ACCESS SPECIFICATIONS: Most spaces are held for Psychology, Business and Society, Law and Society, Cognitive Science and Communication Studies majors/minors.

HH/PSYC 2120 3.0M (W) – SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 11:30am – 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/PSYC 3210 3.0, GL/PSYC 3660 3.0, AK/PSYC 3700C 3.0.	
DESCRIPTION: See course description for HH/PSYC 2120 3.0A (F).	
ACCESS SPECIFICATIONS: Most spaces are held for Psychology, Business and Society, Law and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2120 3.0N (W) – SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 11:30am - 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/PSYC 3210 3.0, GL/PSYC 3660 3.0, AK/PSYC 3700C 3.0.	
DESCRIPTION: See course description for HH/PSYC 2120 3.0A (F).	
ACCESS SPECIFICATIONS: Most spaces are held for Psychology, Business and Society, Law and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2120 3.0O (W) – SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 2:30pm - 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0 with a minimum grade of C COURSE CREDIT EXCLUSION: AK/PSYC 3210 3.0, GL/PSYC 3660 3.0, AK/PSYC 3700C 3.0.	
DESCRIPTION: See course description for HH/PSYC 2120 3.0A (F).	
ACCESS SPECIFICATIONS: Most spaces are held for Psychology, Business and Society, Law and Society, Cognitive Science and Communication Studies majors/minors.	

HH/PSYC 2220 3.0A (F) – SENSATION AND PERCEPTION I	
INSTRUCTOR: TBA OFFICE: TBA	DAY: FULLY ONLINE TIME:
PREREQUISITE: HH/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C. COURSE CREDIT EXCLUSION: HH/PSYC 3120 3.0, GL/PSYC 3690 3.0.	
DESCRIPTION: A course in problems, experimental methods and research findings in sensation and perception. Vision and hearing are covered in some detail, including discussion of the structure and function of the eye and ear, and cortical areas responsible for processing visual and auditory information.	
ACCESS SPECIFICATIONS: Most spaces are held for Psychology and Cognitive Science majors/minors.	

HH/PSYC 2220 3.0B (F) – SENSATION AND PERCEPTION I**INSTRUCTOR:** TBA**DAY:** Monday**OFFICE:** TBA**TIME:** 2:30pm - 5:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3120 3.0, GL/PSYC 3690 3.0.**DESCRIPTION:** See course description for HH/ PSYC 2220 3.0A (F).**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2220 3.0M (W) – SENSATION AND PERCEPTION I****INSTRUCTOR:** TBA**DAY:** FULLY ONLINE**OFFICE:** TBA**TIME:****PREREQUISITE:** HH/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3120 3.0, GL/PSYC 3690 3.0.**DESCRIPTION:** A course in problems, experimental methods and research findings in sensation and perception. Vision and hearing are covered in some detail, including discussion of the structure and function of the eye and ear, and cortical areas responsible for processing visual and auditory information.**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2240 3.0A (F) – BIOLOGICAL BASIS OF BEHAVIOUR****INSTRUCTOR:** TBA**DAY:** Friday**OFFICE:** TBA**TIME:** 2:30pm – 5:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C**COURSE CREDIT EXCLUSION:** HH/PSYC 3145 3.0, GL/PSYC 3670 3.0.**DESCRIPTION:** An introduction to fundamental principles of brain function and neural organization, as illustrated by classic findings and current research. Topics may include sleep and dreaming, memory, sensory motor processing, motivation (e.g. eating, reproductive behaviours), higher cognitive processes and neurological disorders.**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2240 3.0B (F) – BIOLOGICAL BASIS OF BEHAVIOUR****INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 11:30am – 2:30pm**PREREQUISITE:** HH/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3145 3.0, GL/PSYC 3670 3.0.**DESCRIPTION:** See course description for HH/ PSYC 2240 3.0A (F).**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 2240 3.0M (W) – BIOLOGICAL BASIS OF BEHAVIOUR****INSTRUCTOR:** TBA**DAY:** Friday**OFFICE:** TBA**TIME:** 8:30am – 11:30am**PREREQUISITE:** HH/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** HH/PSYC 3145 3.0, GL/PSYC 3670 3.0.**DESCRIPTION:** See course description for HH/ PSYC 2240 3.0A (F).**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.

HH/PSYC 3250 3.0A (F) – NEURAL BASIS OF BEHAVIOUR**INSTRUCTOR:** TBA**DAY:** Tuesday**OFFICE:** TBA**TIME:** 11:30am – 2:30pm**PREREQUISITES:** HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C and HH/PSYC 2240 3.0 or HH/PSYC 3145 3.0.**DESCRIPTION:** This course surveys issues concerning the development and localization of cerebral functions and examines experimental and clinical studies illustrating behavioural effects of brain damage.**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 3250 3.0M (W) – NEURAL BASIS OF BEHAVIOUR****INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 11:30am - 2:30pm**PREREQUISITES:** HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C and HH/PSYC 2240 3.0 or HH/PSYC 3145 3.0.**DESCRIPTION:** See course description for HH/PSYC 3250 3.0A (F).**ACCESS SPECIFICATIONS:** Most spaces are held for Psychology and Cognitive Science majors/minors.**HH/PSYC 3265 3.0A (F) – MEMORY****INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 11:30am - 2:30pm**PREREQUISITES:** HH/PSYC 1010 6.00, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** GL/PSYC 3390 3.00.**DESCRIPTION:** This course is an examination of how humans encode, store and retrieve information from memory. Although the course focuses on data from laboratory studies and their theoretical interpretation, some consideration is given to applied aspects of human memory.**HH/PSYC 3265 3.0M (W) – MEMORY****INSTRUCTOR:** TBA**DAY:** Tuesday**OFFICE:** TBA**TIME:** 11:30am - 2:30pm**PREREQUISITES:** HH/PSYC 1010 6.00, with a minimum grade of C.**COURSE CREDIT EXCLUSION:** GL/PSYC 3390 3.00.**DESCRIPTION:** See course description for HH/PSYC 3265 3.0A (F)

HH/PSYC 3280 3.0A (F) – ANIMAL BEHAVIOUR	
INSTRUCTOR: S. Macdonald OFFICE: TBA	DAY: Wednesday TIME: 2:30pm – 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C, or AP/LING 1000 6.0 COURSE CREDIT EXCLUSION: HH/PSYC 3190 3.0, GL/PSYC 3640 3.0, GL/LIN 3640 3.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 3250 3.0.</i> <i>PRIOR TO FALL/WINTER 2007/2008: AK/AS/SC/PSYC 3190 3.0.</i>	
DESCRIPTION: A survey of psycholinguistic research and theory. Topics chosen from the following: introduction to language structure, biological basis for language, speech perception, sentence processing, speech production, relation of language and thought, language acquisition and atypical language.	
ACCESS SPECIFICATIONS: Most spaces are held for students majoring in Psychology, Linguistics or Cognitive Science.	

HH/PSYC 3290 3.0A (F) – PSYCHOLINGUISTICS (Cross-listed to: AP/LING 3220 3.0)	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday and Wednesday TIME: 11:30am – 2:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C, or AP/LING 1000 6.0 COURSE CREDIT EXCLUSION: HH/PSYC 3190 3.0, GL/PSYC 3640 3.0, GL/LIN 3640 3.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 3250 3.0.</i> <i>PRIOR TO FALL/WINTER 2007/2008: AK/AS/SC/PSYC 3190 3.0.</i>	
DESCRIPTION: A survey of psycholinguistic research and theory. Topics chosen from the following: introduction to language structure, biological basis for language, speech perception, sentence processing, speech production, relation of language and thought, language acquisition and atypical language.	
ACCESS SPECIFICATIONS: Most spaces are held for students majoring in Psychology, Linguistics or Cognitive Science.	

HH/PSYC 3290 3.0M (W) – PSYCHOLINGUISTICS (Cross-listed to: LING 3220 3.0)	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 2:30pm - 5:30pm
PREREQUISITE: HH/PSYC 1010 6.0 or HH/PSYC 2410 6.0, with a minimum grade of C, or AP/LING 1000 6.0 COURSE CREDIT EXCLUSION: HH/PSYC 3190 3.0, GL/PSYC 3640 3.0, GL/LIN 3640 3.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 3250 3.0. PRIOR TO FALL/WINTER 2007/2008: AK/AS/SC/PSYC 3190 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 3290 3.0A (F).	
ACCESS SPECIFICATIONS: Most spaces are held for students majoring in Psychology, Linguistics or Cognitive Science.	

D. UPPER LEVEL COMPUTER SCIENCE, LINGUISTICS, PSYCHOLOGY, PHILOSOPHY

**Take 6 credits from the following,
at least two different disciplines (departments):**

LE/EECS 4401 3.0M (W) – ARTIFICIAL INTELLIGENCE

INSTRUCTOR: TBA

DAY: Tuesday and Thursday

OFFICE: TBA

TIME: 1:00pm – 2:30pm

PREREQUISITES: cumulative GPA of 4.50 or better over all major EECS courses (without second digit "5"); LE/EECS 2030 3.00 or LE/EECS 1030 3.00; LE/EECS 3401 3.00.

DESCRIPTION: This is a second course in Artificial intelligence that covers selected topics in this area such as: reasoning about action and planning, uncertain and fuzzy reasoning, knowledge representation, automated reasoning, non-monotonic reasoning and answer set programming, ontologies and description logic, local search methods, Markov decision processes, autonomous agents and multi-agent systems, machine learning, reasoning about beliefs and goals, and expert systems.

LE/EECS 4421 3.0A (F) – INTRODUCTION TO ROBOTICS

INSTRUCTOR: TBA

DAY: Tuesday and Thursday

OFFICE: TBA

TIME: 10:00am – 11:30am

PREREQUISITES: General prerequisites and SC/MATH 1025 3.00; SC/MATH 1310 3.00; LE/EECS 2031 3.00. SC/CSE 2011 3.0 or SC/COSC 2011 3.0; a cumulative grade point average of 4.5 or better overall in completed major computer science courses, including SC/CSE 1019 3.0; SC/MATH 1025 3.0; SC/MATH 1310 3.0; SC/CSE 2031 3.0.

DESCRIPTION: The course introduces the basic concepts of robotic manipulators and autonomous systems. After a review of some fundamental mathematics the course examines the mechanics and dynamics of robot arms, mobile robots, their sensors and algorithms for controlling them. A Robotics Laboratory is available equipped with a manipulator and a moving platform with sonar, several workstations, and an extensive collection of software. The course includes 12 hours of supervised lab sessions.

LE/EECS 4422 3.0 – COMPUTER VISION

NOT OFFERED 2018 - 2019

LE/EECS 4441 3.0M (W) – HUMAN-COMPUTER INTERACTION

INSTRUCTOR: TBA

DAY: Tuesday and Thursday

OFFICE: TBA

TIME: 11:30am - 1:00pm

PREREQUISITES: General prerequisites and SC/MATH 1025 3.00; SC MATH 1310 3.00; LE/EECS 2031 3.00. SC/CSE 2011 3.0 or SC/COSC 2011 3.0; a cumulative grade point average of 4.5 or better overall completed major computer science courses, including SC/CSE 1019 3.0; SC/MATH 1025 3.0; SC/MATH 1310 3.0; SC/CSE 2031 3.0.

DESCRIPTION: This course introduces the fundamental concepts of vision with emphasis on computer science. In particular the course covers the image formation process, colour analysis, image processing, enhancement and restoration, feature extraction and matching, 3-D parameter estimation and applications. A Vision Laboratory is available equipped with cameras, workstations, image processing software and various robots where students can gain practical experience. Students are required to complete 12 hours of supervised lab work.

AP/LING 4120 3.0M (W) – ADVANCED PHONOLOGY (SEMINAR) – INTEGRATED WITH GS/LING 5120 3.0**INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 2:30pm - 5:30pm**PREREQUISITE:** AP/LING 3120 3.0 with a minimum grade of C+, or permission of the Department

DESCRIPTION: This course concentrates on recent advances in phonological theory, with a generative framework. Specific topics include constraint- vs. rule-based approaches to phonology, segmental representation, markedness, and the relation between phonetics and phonology.

AP/LING 4140 3.0M (W) – ADVANCED SYNTAX) – INTEGRATED WITH GS/LING 5140 3.0**INSTRUCTOR:** TBA**DAY:** Wednesday**OFFICE:** TBA**TIME:** 2:30pm - 5:30pm**PREREQUISITE:** AP/LING 3140 3.00 and at least three additional credits in AP/LING at the 3000-level with grades of C+ or better, or permission of the department.

DESCRIPTION: This course aims at providing students with an in-depth understanding of the interaction between theoretical assumptions, analysis and data in syntax. The course concentrates primarily on Minimalist approaches to raising and control, PRO, Case features, (wh)-operators, and phases. Involves primary literature.

AP/LING 4150 3.0 – TOPICS IN THE SYNTAX-SEMANTICS INTERFACE (SEMINAR) – INTEGRATED WITH GS/LING 5150 3.0**NOT OFFERED 2018 - 2019****AP/LING 4230 3.0A (F) – LANGUAGE AND THE BRAIN****INSTRUCTOR:** TBA**DAY:** Wednesday**OFFICE:** TBA**TIME:** 2:30pm - 5:30pm**PREREQUISITE:** AP/LING 2120 3.00, AP/LING 2140 3.00, and AP/LING 3220 3.00 with grades of C+ or better; and at least three additional credits in linguistics (AP/LING) at the 3000 level with grades of C+ or better.

DESCRIPTION: This course focuses on the relationship between the human brain and comprehension, production, and acquisition of language. It surveys a variety of language disorders, such as aphasia, delayed language development, dyslexia and language dissolution in old age.

AP/LING 4250 3.0 – EVOLUTION OF LANGUAGE**NOT OFFERED 2018 - 2019****AP/PHIL 3200 3.0A (F) – PHILOSOPHY OF LANGUAGE****INSTRUCTOR:** Claudine Verheggen**DAY:** Tuesday**OFFICE:** S436 Ross**TIME:** 2:30pm - 5:30pm**PREREQUISITE:** AP/PHIL 2080 3.0 or AP/PHIL 2100 3.0 or AP/PHIL 2240 3.0*PRIOR TO FALL 2009: AS/PHIL 2100 3.00 OR AK/PHIL 2100 3.00 (PRIOR TO SUMMER 2007) ARE RECOMMENDED***COURSE CREDIT EXCLUSION:** GL/PHIL 3910 3.0. *PRIOR TO FALL 2009: AK/AS/PHIL 3200 3.0*

DESCRIPTION: This course provides an introduction to basic notions of the philosophy of language. Questions to be discussed may include: How is communication in language possible? What is a language? What makes words and phrases meaningful? What is truth?

AP/PHIL 3635 3.0M (W) – PHILOSOPHY OF NEUROSCIENCE	
INSTRUCTOR: Muhammad-Ali Khalidi OFFICE: S438 Ross	DAY: Tuesday and Thursday TIME: 10:00am – 11:30am
PREREQUISITE: AP/PHIL 2160 3.00 or AP/PHIL 2240 3.00. COURSE CREDIT EXCLUSION: None.	
DESCRIPTION: A critical examination of philosophical problems raised by neuroscientific research, which asks whether such research can help to answer traditional philosophical questions. The course introduces the goals, methods, techniques and theoretical as well as conceptual commitments of neuroscience and examines the field's background assumptions, limitations and pitfalls.	

AP/PHIL 4080 3.0M (W) – SEMINAR IN THE PHILOSOPHY OF MIND	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 11:30am - 2:30pm
PREREQUISITE: At least nine credits in philosophy, including AP/PHIL 3260 3.00 or AP/PHIL 3265 3.00. COURSE CREDIT EXCLUSION: None. PRIOR TO FALL 2009: AS/PHIL 4080 3.00.	
DESCRIPTION: An intensive examination of one or more of the following topics: mind and body, thinking, intention, emotions, desires, motives, reasons, dispositions, memory, the unconscious and the concept of a person.	

AP/PHIL 4082 3.0M (W) – PHILOSOPHY OF COGNITIVE SCIENCE	
INSTRUCTOR: David Jopling OFFICE: S435 Ross	DAY: Tuesday TIME: 2:30pm - 5:30pm
PREREQUISITE: At least nine credits in philosophy, including at least three credits from the following: AP/PHIL 3260 3.00 or AP/PHIL 3265 3.00. COURSE CREDIT EXCLUSION: AP/PHIL 4082 3.00 (prior to Fall 2014).	
DESCRIPTION: An examination of philosophical issues at the foundations of cognitive science, such as: mental representation, perception, concepts, rationality, memory, intelligence, modularity, evolutionary psychology, extended and embodied cognition, and consciousness.	

AP/PHIL 4083 3.0 – PHILOSOPHY OF CLINICAL PSYCHOLOGY
NOT OFFERED 2018 -2019

AP/PHIL 4084 3.0 – ANIMALS AND THE PHILOSOPHY OF MIND
NOT OFFERED 2018 -2019

HH/PSYC 4010 3.0A (F) – SEMINAR IN DEVELOPMENTAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 2:30pm – 5:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2110 3.00 or AK/HH/PSYC 3240 3.00. COURSE CREDIT EXCLUSION: HH/PSYC 4010 3.0, HH/PSYC 4140 3.0, GL/PSYC 4510 3.0.	
DESCRIPTION: In this course some major modern theories of child development are compared, and their corresponding data and methodologies are analyzed.	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Children Studies.	

HH/PSYC 4010 3.0M (W) – SEMINAR IN DEVELOPMENTAL PSYCHOLOGY**INSTRUCTOR:** TBA**DAY:** Wednesday**OFFICE:** TBA**TIME:** 2:30 – 5:30pm

PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2110 3.00 or AK/HH/PSYC 3240 3.00.

COURSE CREDIT EXCLUSION: HH/PSYC 4010 3.0, HH/PSYC 4140 3.0, GL/PSYC 4510 3.0.

DESCRIPTION: See description for HH/PSYC 4010 3.0A(F).

ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Children Studies.

HH/PSYC 4010 6.0A (Y) – SEMINAR IN DEVELOPMENTAL PSYCHOLOGY**INSTRUCTOR:** TBA**DAY:** Wednesday**OFFICE:** TBA**TIME:** 7:00pm – 10:00pm

PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2110 3.00 or AK/HH/PSYC 3240 3.00.

COURSE CREDIT EXCLUSION: HH/PSYC 4010 3.0, HH/PSYC 4140 3.0, GL/PSYC 4510 3.0.

DESCRIPTION: See description for HH/PSYC 4010 3.0A(F).

ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Children Studies.

HH/PSYC 4010 6.0B (Y) – SEMINAR IN DEVELOPMENTAL PSYCHOLOGY**INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 11:30am - 2:30pm

PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2110 3.00 or AK/HH/PSYC 3240 3.00.

COURSE CREDIT EXCLUSION: HH/PSYC 4010 3.0, HH/PSYC 4140 3.0, GL/PSYC 4510 3.0.

DESCRIPTION: See description for HH/PSYC 4010 3.0A(F).

ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Children Studies.

HH/PSYC 4010 6.0C (Y) – SEMINAR IN DEVELOPMENTAL PSYCHOLOGY**INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 11:30am – 2:30pm

PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2110 3.00 or AK/HH/PSYC 3240 3.00.

COURSE CREDIT EXCLUSION: HH/PSYC 4010 3.0, HH/PSYC 4140 3.0, GL/PSYC 4510 3.0.

DESCRIPTION: See description for HH/PSYC 4010 3.0A(F).

ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Children Studies.

HH/PSYC 4020 3.0A (F) – SEMINAR IN SOCIAL PSYCHOLOGY**INSTRUCTOR:** TBA**DAY:** Thursday**OFFICE:** TBA**TIME:** 11:30am – 2:30pm

PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C;

AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; AK/AS/HH/SC/PSYC 2120 3.0 or AK/HH/PSYC 3210 3.0 COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 4020 6.0, <i>PRIOR TO SUMMER 2002: AK/PSYC 4110 3.0.</i>	
DESCRIPTION: In-depth consideration of contemporary issues in social psychology. The focus will vary depending on the specialty area of the instructor.	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology and Cognitive Science.	

HH/PSYC 4020 6.0A (Y) – SEMINAR IN SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Wednesday TIME: 11:30am - 2:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; AK/AS/HH/SC/PSYC 2120 3.0 or AK/HH/PSYC 3210 3.0 COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 4020 6.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 4110 3.0</i>	
DESCRIPTION: See course description for HH/PSYC 4020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology and Cognitive Science	

HH/PSYC 4020 6.0B (Y) – SEMINAR IN SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 11:30am - 2:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; AK/AS/HH/SC/PSYC 2120 3.0 or AK/HH/PSYC 3210 3.0 COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 4020 6.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 4110 3.0</i>	
DESCRIPTION: See course description for HH/PSYC 4020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology and Cognitive Science.	

HH/PSYC 4020 6.0C (Y) – SEMINAR IN SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 2:30pm - 5:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; AK/AS/HH/SC/PSYC 2120 3.0 or AK/HH/PSYC 3210 3.0 COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 4020 6.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 4110 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 4020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology and Cognitive Science.	

HH/PSYC 4020 6.0D (Y) – SEMINAR IN SOCIAL PSYCHOLOGY	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Monday TIME: 8:30am - 11:30am
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; AK/AS/HH/SC/PSYC 2120 3.0 or AK/HH/PSYC 3210 3.0 COURSE CREDIT EXCLUSION: AK/AS/HH/SC/PSYC 4020 6.0. <i>PRIOR TO SUMMER 2002: AK/PSYC 4110 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 4020 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology and Cognitive Science.	

HH/PSYC 4080 6.0A (Y) – NEUROPSYCHOLOGY OF ABNORMAL BEHAVIOUR	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 8:30am – 11:30am
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2240 3.00 or AK/HH/PSYC 3145 3.00; AK/HH/PSYC 3140 3.00 (after Winter 2002) or AS/SC/PSYC 3140 3.00 or AK/HH/PSYC 3215 3.00. COURSE CREDIT EXCLUSION: <i>AFTER SUMMER 2010: GL/PSYC 3530 3.0.</i>	
DESCRIPTION: This course provides an examination of the genetic, physiological and anatomical bases of several types of abnormal behaviour. The social, public policy and ethical implications of a neuropsychological view of abnormal behaviour are discussed.	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Criminology.	

HH/PSYC 4080 6.0B (Y) – NEUROPSYCHOLOGY OF ABNORMAL BEHAVIOUR	
INSTRUCTOR: W. Heinrichs OFFICE: TBA	DAY: Wednesday TIME: 8:30am - 11:30am
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; AK/AS/HH/SC/PSYC 2240 3.0 or AK/HH/PSYC 3145 3.0; AK/HH/PSYC 3140 3.0 or AS/SC/PSYC 3140 3.0 or AK/HH/PSYC 3215 3.0 COURSE CREDIT EXCLUSION: <i>AFTER SUMMER 2010: GL/PSYC 3530 3.0.</i>	
DESCRIPTION: See course description for HH/PSYC 4080 6.0A (Y).	
ACCESS SPECIFICATIONS: All spaces are held for 4th year Honours students in Psychology, Cognitive Science and Criminology.	

HH/PSYC 4260 3.0M (W) – SEMINAR IN SENSATION AND PERCEPTION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 11:30am – 2:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.00 or AK/HH/PSYC 2530 3.00; one of AK/AS/HH/SC/PSYC 2021 3.00, AK/AS/HH/SC/PSYC 2020 6.00, AK/HH/PSYC 2510 3.00; AK/AS/HH/SC/PSYC 2220 3.00 or AK/HH/PSYC 3120 3.00. COURSE CREDIT EXCLUSION: None. <i>PRIOR TO SUMMER 2002: AS/AS/SC PSYC 4120.</i>	
DESCRIPTION: This seminar course gives advanced, detailed coverage of topics in sensation and perception. Specific topics vary according to the instructor, and could include vision (e.g., shape perception, colour perception), hearing (e.g., auditory localization, speech perception), or vestibular perception (e.g., balance, the sense of movement). The course emphasizes reading and evaluating original scientific work, and readings include journal articles or research monographs. Special attention is paid to understanding the value and limitations of common experimental methods in perception research.	
ACCESS SPECIFICATION: All spaces are held for 4 th year Honours students with Psychology as the major.	

HH/PSYC 4270 3.0A (F) - SEMINAR IN MEMORY AND COGNITION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Thursday TIME: 2:30pm - 5:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; one of AK/HH/PSYC 3130 3.0, AK/HH/PSYC 3135 3.0, AK/HH/PSYC 3260 3.0 (after Winter 2002), AS/SC/PSYC 3260 3.0, AK/AS/HH/SC/PSYC 3265 3.0 COURSE CREDIT EXCLUSION: None. <i>BETWEEN FALL/WINTER 1992-1998: AK/PSYC 4130 3.0</i>	
DESCRIPTION: This course will survey a variety of topics in the area of human memory and its relationship with other cognitive processes, such as perception, emotion, and executive function. Current theories and data on memory will be presented, focusing on the processes and systems involved at encoding, storage, and retrieval, as well as the errors of memory and the importance of memory in our everyday lives. Evidence derived from work with clinical populations with severe memory disturbances and healthy older individuals will be reviewed. Reference will also be made to research involving the use of animal models and the growing use of brain-imaging techniques to study the neural basis of memory. Students will have the opportunity to discuss and critique current research in memory, with particular attention to the ongoing debate regarding unitary versus multiple memory systems and the neural correlates of such systems.	
ACCESS SPECIFICATION: All spaces are held for 4 th year Psychology Honours majors.	

HH/PSYC 4270 3.0M (W) - SEMINAR IN MEMORY AND COGNITION	
INSTRUCTOR: TBA OFFICE: TBA	DAY: Tuesday TIME: 11:30am – 2:30pm
PREREQUISITES: AK/AS/HH/SC/PSYC 1010 6.0 or AK/HH/PSYC 2410 6.0, with a minimum grade of C; AK/AS/HH/SC/PSYC 2030 3.0 or AK/HH/PSYC 2530 3.0; one of AK/AS/HH/SC/PSYC 2021 3.0, AK/AS/HH/SC/PSYC 2020 6.0, AK/HH/PSYC 2510 3.0; one of AK/HH/PSYC 3130 3.0, AK/HH/PSYC 3135 3.0, AK/HH/PSYC 3260 3.0 (after Winter 2002), AS/SC/PSYC 3260 3.0, AK/AS/HH/SC/PSYC 3265 3.0 COURSE CREDIT EXCLUSION: None. <i>BETWEEN FALL/WINTER 1992-1998: AK/PSYC 4130 3.0</i>	
DESCRIPTION: See course description for HH/PSYC 4270 3.0 (A).	
ACCESS SPECIFICATION: All spaces are held for 4 th year Psychology Honours majors.	

HH/PSYC 4285 3.0 – SEMINAR IN COMPARATIVE COGNITION
NOT OFFERED 2018 -2019

ACADEMIC HONESTY

Philosophy is concerned with teaching students to **argue well**, as opposed to arguing to the conclusion that the professor agrees with, or one that is famous. Philosophy also insists that its students do their **own thinking**, and their **own writing**! While it is sometimes (but not usually) necessary to read or quote from other authors about a philosophical subject, such references or quotations must always be clearly acknowledged in any philosophy essay. The Philosophy Department is very concerned about the problem of student plagiarism. If you have any questions about how to refer to other sources you are using, you should consult your course director and/or your teaching assistant. For more information on what academic dishonesty is and what the university's policies concerning it are, consult

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

The Philosophy Department would like to add a special caution regarding material found on the Internet. Students must treat material found on the Internet exactly the same as they would material found in a book or article. That material **must be** clearly cited (using the web site address) if it is quoted or paraphrased, just as any other reference would be. This has been a source of many problems in the past few years, and students are asked to discuss it with their professor if they feel they are unclear about it.

The Philosophy Department has adopted a policy of having a mandatory in-class test or quiz for all courses below the fourth year level. This quiz may be kept by the instructor so that it may be compared with essay work handed in later. Please note that it is impossible to pass the course without taking this quiz.

DEGREE REQUIREMENTS CHECKLIST

LA&PS - COGNITIVE SCIENCE

SPECIALIZED HONOURS BA PROGRAM 120 CREDITS REQUIRED (Major in Cognitive Science)

GENERAL EDUCATION REQUIREMENTS 21 CREDITS

- To fulfill the General Education requirements students must take 21 credits of General Education, including:
- A 6.00 credit course in Natural Science (NATS);
- A 9.00 credit approved General Education course in the Social Science or Humanities categories;
- A 6.00 credit approved General Education course in the opposite category to the 9.00 credit course in Social Science or Humanities already taken.

Date Completed	Assigned Grade	Faculty	Course Code	Credits	Course Name

COGNITIVE SCIENCE REQUIREMENTS 48 or 51 CREDITS

A. Core Program Courses

27 or 30 credits – Students must take all of the following courses

Date Completed	Assigned Grade	Faculty	Course Code	Credits	Course Name
		AP	LING 1000	6.0	Introduction to Linguistics OR Mind and Language
			COGS/LING 2800	3.0	
		HH	PSYC 1010	6.0	Introduction to Psychology
		HH	PSYC 2260	3.0	Cognition
		AP	COGS/PHIL 2160	3.0	Minds, Brains, and Machines
		AP	PHIL 3260	3.0	Philosophy of Psychology
		AP	COGS/PHIL 3750	3.0	Philosophy of Artificial Intelligence
		AP	COGS 4750	6.0	Honours Thesis in Cognitive Science OR Honours Seminar in Cognitive Science, not both
			COGS 4901	6.0	

B. Lower-level Computer Science, Information Technology, Linguistics, Philosophy, Psychology

Students must take 6 credits from the following list of courses

Date Completed	Assigned Grade	Faculty	Course Code	Credits	Course Name
		LE	EECS 1022	3.0	Programming for Mobile Computing
		LE	EECS 2001	3.0	Introduction to the Theory of Computation
		LE	EECS 2030	3.0	Advanced Object Oriented Programming
		AP	ITEC 1000	3.0	Introduction to Information Technologies
		AP	ITEC 1010	3.0	Information and Organizations
		AP	LING 2120	3.0	Fundamentals of Phonological Analysis
		AP	LING 2130	3.0	Fundamentals of Morphological Analysis
		AP	LING 2140	3.0	Fundamentals of Grammatical Analysis
		AP	PHIL 2100	3.0	Introduction to Logic
		AP	PHIL 2240	3.0	Introduction to the Philosophy of Mind
		HH	PSYC 2020	6.0	Statistical Methods I and II
		HH	PSYC 2021	3.0	Statistical Methods I
		HH	PSYC 2030	3.0	Introduction to Research Methods

C. Mid-level Computer Science, Information Technology, Linguistics, Philosophy, Psychology

Students must take 9 credits from two different disciplines/departments

Date Completed	Assigned Grade	Faculty	Course Code	Credits	Course Name
		LE	EECS 2011	3.0	Fundamentals of Data Structures
		LE	EECS 3401	3.0	Introduction to Artificial Intelligence and Logic Programming
		AP	ITEC 3230	3.0	Designing User Interfaces
		AP	LING 3120	3.0	Phonology
		AP	LING 3140	3.0	Syntax
		AP	LING 3150	3.0	Semantics
		AP	LING 3210	3.0	First Language Acquisition
		AP	LING 3220	3.0	Psycholinguistics
		AP	PHIL 3265	3.0	Philosophy of Mind
		HH	PSYC 2110	3.0	Developmental Psychology
		HH	PSYC 2120	3.0	Social Psychology
		HH	PSYC 2220	3.0	Sensation and Perception I
		HH	PSYC 2240	3.0	Biological Basis of Behaviour
		HH	PSYC 3250	3.0	Neural Bases of Behaviour
		HH	PSYC 3265	3.0	Memory
		HH	PSYC 3280	3.0	Animal Behaviour
		HH	PSYC 3290	3.0	Psycholinguistics

D. Upper-level Computer Science, Linguistics, Philosophy, Psychology

Students must take 6 credits from two different disciplines/departments

Date Completed	Assigned Grade	Faculty	Course Code	Credits	Course Name
		LE	EECS 4401	3.0	Artificial Intelligence
		LE	EECS 4421	3.0	Introduction to Robotics
		LE	EECS 4422	3.0	Computer Vision
		LE	EECS 4441	3.0	Human-Computer Interaction
		AP	LING 4120	3.0	Advanced Phonology
		AP	LING 4140	3.0	Advanced Syntax
		AP	LING 4150	3.0	Topics in the Syntax-Semantics Interface
		AP	LING 4250	3.0	Evolution of Language
		AP	LING 4230	3.0	Language and the Brain
		AP	PHIL 3200	3.0	Philosophy of Language
		AP	PHIL 3635	3.0	Philosophy of Neuroscience
		AP	PHIL 4080	3.0	Seminar in the Philosophy of Mind
		AP	PHIL 4082	3.0	Philosophy of Cognitive Science
		AP	PHIL 4083	3.0	Philosophy of Clinical Psychology
		AP	PHIL 4084	3.0	Animals & the Philosophy of Mind
		HH	PSYC 4010	3.0/6.0	Seminar in Developmental Psychology
		HH	PSYC 4020	3.0/6.0	Seminar in Social Psychology
		HH	PSYC 4080	6.0	Neuropsychology of Abnormal Behavior
		HH	PSYC 4285	3.0	Seminar in Comparative Cognition
		HH	PSYC 4230	3.0	Human Performance in Systems
		HH	PSYC 4260	3.0	Seminar in Sensation and Perception
		HH	PSYC 4270	3.0	Seminar in Memory and Cognition

In addition to the above course requirements, please note further requirements on next page.

STUDENTS MUST COMPLETE:

RESIDENCE REQUIREMENT: At least 30 credits must be taken at York and at least half of the credits in the major must be In-Faculty

UPPER LEVEL REQUIREMENT: Students must meet the upper-level requirement, which is **36 credits** at the 3000 level or 4000 level. A minimum of **18 credits** must be at the 4000 level. Students should consult the most recent Undergraduate Calendar for their chosen program and major for specific requirements.

FOUNDATION LIMIT: Faculty of Liberal Arts & Professional Studies students may complete a maximum of three 9 credit Foundation courses for degree credit.

COURSE PREREQUISITES: Please see the Cognitive Science Course Requirements chart for all course prerequisites, cross-listed courses and course credit exclusions and substitutions.

For further details on requirements for the Minor BA program (with Cognitive Science as a Minor), refer to the listings for specific Honours programs that may be pursued jointly with other Faculties.