**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY120HY* | Duncan & Mack | Tues | 1-3 | STG, SS560A | Selected Topics in Psychology | Introduction to Computer Programming for Psychology
PSY2001HF | Cunningham, W | Tues | 10-12 | STG, SS560A | Design of Experiments I | General Linear Model
PSY2002HF | Blaxall & Buchbaum, B. | Tues | 10-12 | STG, SS560A | Design of Experiments II | Multivariate Statistical Inference
PSY5112HF | Ralph | Wed 3-5 | STG, SS4004 | Advanced Topics in Behavioral Neuroscience III | Chronobiology: Temporal Aspects of Human Behaviour
PSY5121HF | Gerai | Wed 1-3 | UTM, CCT4304 | Advanced Topics in Animal Behavior and Motivation II | Animal Behaviour Genetics
PSY5202HF | Pekel | Wed 1-3 | STG, SS560A | Advanced Topics in Cognition III | Individual Differences in Cognitive and Neural Function
PSY5222HF | Levine | Mon 10-12 | STG, SS560A | Advanced Topics in Cognition III | Probabilistic (Bayesian) Computational Models of Cognition
PSY5303HY** | Buchbaums, D. | Thurs | 1-3 | STG, SS560A | Cognitive Development |

*year-long course (September - April) meeting bi-weekly

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.

---

**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY2001HF | | | | | | 
PSY2002HF | | | | | | 
PSY5112HF | | | | | | 
PSY5202HF | | | | | | 
PSY5303HY** | | | | | | 

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.

---

**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY3505HY | | | | | | 
PSY3510HF | | | | | | 
PSY5505HF | | | | | | 

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.

---

**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY3511HF | | | | | | 
PSY4503HF | | | | | | 

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.

---

**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY5431HF | | | | | | 
PSY5433HF | | | | | | 

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.

---

**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY5603HF | | | | | | 
PSY5612HF | | | | | | 
PSY5622HF | | | | | | 

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.

---

**Course Code** | **Instructor** | **Day** | **Time** | **Location** | **Title** | **Sub-title**
--- | --- | --- | --- | --- | --- | ---
PSY5633HF* | | | | | | 

---

**Course Description**

Over recent years computer programming skills have become a requirement for conducting psychological research across many subdisciplines. We designed this course to provide new graduate students with foundational programming skills and knowledge of tools relevant for psychology, with the aims of (1) enabling their current research and (2) providing the building blocks for acquiring more specialized methods. The course will begin with introductory concepts and good practices (e.g., version control, logical statements, and debugging). We will then move on to experiment programming, surveying specialized software for stimulus presentation (e.g., PsychoPy, Psychtoolbox, EPrime, and Qualtrics). In the second term, we will cover data management, restructuring, and quality control followed by data visualization. Course instruction will be grounded in Python and R languages and tools that are most applicable to the student’s research. No programming knowledge is required. Students with programming backgrounds are also encouraged to register.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Instructor</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
<th>Title</th>
<th>Sub-title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY2003HY*</td>
<td>Cohn</td>
<td>Thurs</td>
<td>1-3</td>
<td>STG, RW109</td>
<td>Attention</td>
<td>Voluntary Control of Attention and Memory</td>
</tr>
<tr>
<td>PSY5010HY*</td>
<td>Stanghala</td>
<td>Tues</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Mechanics of Behaviour</td>
<td>The Neurobiology of Memory</td>
</tr>
<tr>
<td>PSY5020HY*</td>
<td>Einstein</td>
<td>Wed</td>
<td>2-4</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Behavioral Neuroscience</td>
<td>Sex Differences in Brain &amp; Behaviour</td>
</tr>
<tr>
<td>PSY5021HY*</td>
<td>Buchbaum, D.</td>
<td>Thurs</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Cognition</td>
<td>Neuromodulation for Cognitive Neuroscientists</td>
</tr>
<tr>
<td>PSY5430HY*</td>
<td>Inzlicht</td>
<td>Tues</td>
<td>11-1</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Social Psychology</td>
<td>The Psychology of Self-Regulation</td>
</tr>
<tr>
<td>PSY5432HY*</td>
<td>Ford</td>
<td>Tues</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Social Psychology</td>
<td>The Psychology of Emotion Regulation</td>
</tr>
<tr>
<td>PSY2000HS</td>
<td>Ford</td>
<td>Tues</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Social Psychology</td>
<td>The Psychology of Emotion Regulation</td>
</tr>
<tr>
<td>PSY1510HS</td>
<td>Frantsland</td>
<td>Wed</td>
<td>2-4</td>
<td>STG, SS560A</td>
<td>Mechanical of Behaviour</td>
<td>The Neurobiology of Memory</td>
</tr>
<tr>
<td>PSY1110HS</td>
<td>Einstein</td>
<td>Wed</td>
<td>12-12</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Behavioral Neuroscience</td>
<td>Sex Differences in Brain &amp; Behaviour</td>
</tr>
<tr>
<td>PSY2020HS</td>
<td>Ryan</td>
<td>Mon</td>
<td>10-12</td>
<td>STG, SS560A</td>
<td>Memory</td>
<td>Theories of Memory</td>
</tr>
<tr>
<td>PSY1210HY*</td>
<td>Duncan &amp; Mack</td>
<td>Tues</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Selected Topics in Psychology</td>
<td>Introduction to Computer Programming for Psychology</td>
</tr>
<tr>
<td>PSY1000HS</td>
<td>Tannaholt</td>
<td>Thurs</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Conceptual Bases of Psychology</td>
<td>Philosophy of Psychology as a Social Science</td>
</tr>
<tr>
<td>PSY2002HS</td>
<td>Page &amp; Guay</td>
<td>Wed</td>
<td>2-4</td>
<td>STG, SS560A</td>
<td>Mechanisms of Behaviour</td>
<td>The Neurobiology of Memory</td>
</tr>
<tr>
<td>PSY5001HS</td>
<td>Anderson</td>
<td>Thurs</td>
<td>3-5</td>
<td>STG, SS560A</td>
<td>Professional Psychology</td>
<td>Practical Knowledge &amp; Skills for a Successful Career</td>
</tr>
<tr>
<td>PSY1510HS</td>
<td>Frankland</td>
<td>Wed</td>
<td>2-4</td>
<td>STG, SS560A</td>
<td>Mechanisms of Behaviour</td>
<td>The Neurobiology of Memory</td>
</tr>
<tr>
<td>PSY1110HS</td>
<td>Stanghala</td>
<td>Tues</td>
<td>11-1</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Social Psychology</td>
<td>The Psychology of Self-Regulation</td>
</tr>
<tr>
<td>PSY5430HS</td>
<td>Inzlicht</td>
<td>Tues</td>
<td>11-1</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Social Psychology</td>
<td>The Psychology of Self-Regulation</td>
</tr>
<tr>
<td>PSY5432HS</td>
<td>Ford</td>
<td>Tues</td>
<td>1-3</td>
<td>STG, SS560A</td>
<td>Advanced Topics in Social Psychology</td>
<td>The Psychology of Emotion Regulation</td>
</tr>
</tbody>
</table>

*year-long course (September - April) meeting bi-weekly

Course Description

This course pairs recent findings in developmental psychology, social psychology, and cognitive science with central texts from classical and contemporary philosophy. This course will be structured around three intertwined topics related to how we reason about the self across the lifespan: Mind Perception, Morality and Justice, and Personal Identity.

Despite the prescriptive claims of scientific utilitarians from J. S. Mill to E. O. Wilson, the discipline of psychology continues to walk on two legs as both a natural and a social science. This course addresses key metaphysical, epistemological, and ethical questions concerning the second leg – psychology as a social science. What is social reality? How does it relate to agency and intentionality? What does it mean to explain human action? How do and should causality, prediction, laws, reasons, and interpretation figure in social scientific explanation? Can naturalist and interpretive approaches to understanding social life be reconciled? What is the place of values in social inquiry? To what extent does studying the social world legitimate or challenge us? If what are the ethical implications of this for the social scientist? Finally, do responses to the above questions point to any essential differences between natural and social science? Guided by classic and contemporary readings in philosophy of science, students will be encouraged to develop their own positions on the issues examined and test out these positions in class discussion. The result, it is hoped, will be as many distinct perspectives as there are students enrolled.

This course will provide a practical introduction to a number of different advanced statistical methods used in psychological research. Specifically, the course will cover the following topics: (1) Path analysis and Mediation; (2) Mixed effects/multilevel modeling; (3) Non-parametric models (e.g., logistic regression) and bootstrapping; (4) Bayesian Hypothesis Testing; (5) Factor analysis, including exploratory factor analysis/principal components analysis, confirmatory factor analysis, and cluster analysis; (6) Structural Equation Modeling; and, (7) Time-based analysis like time series, lagged regression, and latent growth curves. The course will place a strong emphasis on practical applications, such that every class will include demonstrations, electronic copies of the data, and examples of the analysis available to the students. We will also also learn to be an active consumer of quantitative psychology articles, as well as develop generalizable strategies for statistical reporting. You will only need to be familiar with one of the following statistical packages: SPSS, R, or SAS. The course will have a final project where you will be required to use one of the analyses you learn in class to analyze your own data or public data and then write methods, results, and discussion sections that describe your findings. You will also be expected to complete lab assignments that involve conducting analyses on example datasets in the statistical software package of your choice. The goal is for you to leave the class with an understanding of when and how to apply each of the statistical techniques you learn. Knowledge of these modern statistical tools will increase the flexibility of your research designs and the statistical rigour with which you analyze your data.

This course provides a practical overview of facets for a successful career in academic or non-academic psychology. Topics include research ethics, open science, writing skills, and publishing processes. Guest panels will provide tips on topics such as navigating graduate school, academic and non-academic jobs, and applying for funding. The primary requirements are participating in class and panel discussions, with the occasional brief assignment.

This course will focus on recent progress in understanding the neurobiological bases of memory. The course will involve discussion of contemporary memory studies, predominantly in rodents, that offer new mechanistic insight into memory processes covering a range of topics including encoding, consolidation, storage, retrieval, retrieval-associated processes such as reconsolidation, and forgetting. Students will be expected to present and discuss these primary papers.

This course will engage with the historic and contemporary literature in the field of Hormones and Behaviour following the development of the field from Beach’s early rodent studies to current studies using brain imaging to identify differences in gay, straight, and transgendered human brains. Primarily dealing with central nervous system anatomy and its relationship to sexually dimorphic behaviour, this course emphasizes the role of steroid hormones and experience in shaping differences in behaviour, cognition, and identity. In following this field into the present, students will gain an appreciation for changing norms in research, how a field of scientific knowledge develops, sex differences in the brain, and the role of steroid hormones in shaping memory, cognition, mental health, and neurological disorders. Students will present papers in the text as well as tips for their own successful presentation.

Most psychopharmacological drugs produce their behavioural effects by altering the functioning of brain neurotransmitter systems. Alterations in these transmitter systems may underlie psychiatric disorders (e.g., addiction and schizophrenia). This course will examine selected topics related to neurochemical theories of psychiatric disorders, and the mechanisms of action of psychoactive drugs (both therapeutic and recreational). In covering these topics we will consider experimental work conducted at the preclinical level (using laboratory animals) as well as in humans.

Our mind is a highly efficient information processor. We can select task-relevant information presented among task-irrelevant information and remember the information to guide our behavior to achieve a goal at hand or in the future. Often times, we tend to think that “we” are in control of this elegant information processor, but is that really true? If not, “who” or “what” is in control? And, to what extent do “we” have control? In this course, we will review and discuss both classic and recent discoveries in cognitive psychology and neuroscience to seek deeper understanding of the nature and the extent of voluntary control on our information processing ability.

This course will cover fundamental readings in the nature of memory, and the empirical support for and against each theory. Readings will cover findings from the earliest investigations with case studies to the present day to illustrate the evolution of ideas regarding representations, processes and systems. The course will review evidence derived from both human and non-human studies. Theories of memory, as well as the advantages and limitations of the techniques used, will be discussed using recent research papers.

There has been an exponential increase in marketing of brain enhancing gadgets and media coverage of medical discoveries involving neuromodulation. Hype vs hope for changing brain circuitry? In this course we will review a variety of neuromodulation techniques (e.g., TMS, DBS, neurofeedback, neuropharmacology). We will examine these in the context of treating neurological conditions and psychiatric disorders, and enhancing cognition and mood. General goals of this course are to gain a deeper understanding of their mechanisms, the appropriate way to use one of the analyses you learn in class to analyze your own data or public data and then write methods, results, and discussion sections that describe your findings.

This course will cover prominent readings regarding the nature of memory, and the empirical support for and against each theory. Readings will cover findings from the earliest investigations with case H.M. to the present day to illustrate the evolution of ideas regarding representations, processes and systems. The course will review evidence derived from both human and non-human studies. Theories of memory, as well as the advantages and limitations of the techniques used, will be discussed using recent research papers.

This seminar reviews the recent scientific literature on how humans manage or control their emotions (emotion regulation). In a discussion-based format, students will learn about the basic theories and methods of emotion regulation research as well as the current status of the empirical literature. More specifically, we will explore why people regulate emotions, how they do so, the socio-cultural factors that influence emotion regulation, and what emotion regulation can do for our health, relationships, and happiness.