COURSE CONTENT

Course Code / Title **:** HP3601 Human Memory

Pre-requisites **:** HP1000 + HP1100 or CS2008 (PSMA) + HP2200 + HP2600

No. of AUs. **:** 3

Contact Hours **:** 39

Course Aims

Memory is fundamental and vital to all aspects of learning and behavior – for performing everyday tasks to defining who we are – by allowing us to base our thoughts and actions on knowledge and skills acquired from previous experiences, as well as to imagine our future. This course aims to examine traditional and contemporary ideas and ongoing debates about human memory and explore findings from cutting-edge empirical research, with a focus on discovering the mechanisms of memory by examining the neural basis of memory, and applying cognitive science to discover ways to improve learning and memory. You will gain insights into how memory is thought to work, how it may change across lifespan, how and why memory may fail, and what you can do to better retain information and make learning more durable.

Intended Learning Outcomes (ILO)

By the end of the course, you should be able to:

1. Describe and explain the different forms of memory, theories of memory, and the phenomena associated with them;
2. Demonstrate a working knowledge of the empirical approaches to study memory in the laboratory and in naturalistic settings, as well as the application of memory principles and findings in learning;
3. Analyze, discuss and write critically about empirical research in memory and their implications;
4. Integrate extant findings about a specific topic of memory, identify knowledge gaps, and propose a research study to fill the gaps;
5. Improve metacognitive skills (knowing what you know, learning how to learn), through traditional book/article learning, and through practice and reflection.

Course Content

This course will cover a greater breadth and depth in topics related to memory, such as the forms of memory, neuroscience of memory, methods and principles, learning and memory, metamemory, eyewitness testimony, and memory across the lifespan. Traditional and novel theoretical perspectives, ongoing debates, as well as cutting-edge research will be examined.

Course Assessment

CA1	Class participation	: 20%
CA2	Project proposal	: 40%
CA3	Quizzes	: 20%
CA4	Reflective journals	: 20%
Total		--------
		100%

Reading and References

Students are required to complete readings via academic journal articles and book chapters that reflect the themes and theories covered in class (see Appendix 1). The reading list will be updated each time the course is taught to keep up with the latest developments in the field of human memory. With the exception of books, all reading materials and course materials will be accessible through either NTULearn and/or Perusall. Students are responsible to search and read the research articles for their research proposal.

Recommend (optional):
[BEA] (2020). Baddeley, A., Eysenck, M. W., & Anderson, M. C. *Memory (3rd Ed.)*. Routledge.

Required:
[BRM] Brown, P. C., Roediger, H. L., & McDaniel, M. A. (2014). *Make it stick: The science of successful learning*. Cambridge, MA: The Belknap Press of Harvard University.

Planned Weekly Schedule (subject to changes, if any)

Week	Topic	Course LO	Readings/ Activities
1	Course overview	1	Nil
2	Taxonomy of memory	1, 2, 3, 5	Assigned articles (see reading list); BRM Ch. 1; BEA Ch. 1
3	Neuroscience of learning and memory	1, 2, 3	Assigned articles (see reading list) BEA Ch. 2
4	Retrieval	1, 2, 3, 5	Assigned articles (see reading list);

			BRM Ch. 2; BEA Ch. 8
5	Forgetting and updating	1, 2, 3	Assigned articles (see reading list); BEA Ch. 9 & 10
6	Spacing and Interleaving	1, 2, 3, 5	Assigned articles (see reading list); BRM Ch. 3; BEA Ch. 5
7	Methods in memory research	1, 2, 3	Assigned articles (see reading list)
8	Metamemory	1, 2, 3, 5	Assigned articles (see reading list); BRM Ch. 4 & 5
9	Prospective memory and imaging the future	1, 2, 3	Assigned articles (see reading list); BEA Ch. 13
10	Eyewitness testimony	1, 2, 3, 5	Assigned journal article(s)/book chapter(s); BRM Ch. 6; BEA Ch. 12
11	Development of memory	1, 2, 3	Assigned articles (see reading list); BEA Ch. 14 & 15
12	Project presentation	1, 2, 3, 4, 5	BRM Ch. 7 & 8
13	Project presentation	1, 2, 3, 4	Nil