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| **Course Code** | HP3003 |
| **Course Title** | The Psychology of Everyday Design |
| **Pre-requisites** | HP1000 Introduction to Psychology<br>HP1100 Fundamentals of Social Science Research<br>HP2600 Cognitive Psychology |
| **No of AUs** | 3 |

**Course Aims**

The course aims to teach psychological knowledge about human performance and how to apply the knowledge to the design of human-technological systems. It spans psychophysics, cognitive psychology, ergonomics, human-computer interaction, and engineering design. It covers core concepts in memory, attention, learning, problem-solving, human error, and information theory. It also teaches methods and techniques for the design and evaluation of everyday human-technological interfaces.

This course is in deep connection with other key courses of the program such as Introduction to Psychology, **Fundamentals of Social Science Research**, and Cognitive Psychology.

**Intended Learning Outcomes (ILO)**

After this course, you should be able to:

1) Describe basic psychological theories that can be applied to the design of human-technological systems
2) Identify research questions in the area of human-technology interaction
3) Use psychological principles to explain why certain design solutions work or do not work.
4) Apply methods such as task analysis and usability study to identify and solve design problems in human-technological systems
5) Summarize and present research methods and findings used in a research project on the design of a human-technological system to an academic or professional audience via both written and oral presentation

**Course Content**

Introduction, attention and perception, signal detection, user-centered design, emotional design, sociable design, culture and design, creativity and design.

**Assessment (includes both continuous and summative assessment)**

| Component | ILO Tested | Related Programme LO or Graduate Attributes | Weighting | Team/Individual |
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| 1. Reflection papers | 1, 2, 3, | Competence & critical thinking & written and oral | 30% | Individual |
| 2. Research paper | 1, 2, 3, 4 | Competence & critical thinking & written communication & teamwork | 30% | Team |

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| 3. Final Presentation | 5 | Competence & critical thinking & written and oral communication& teamwork | 30% | Team |
| 4. Class participation | 1,2,3 | Competence & critical thinking | 10% | Individual |
| Total | | | 100% | |

**Formative feedback**

Feedback will be provided regarding students' ability to recall and apply key concepts and principles in the psychology of design through in-class activities. Students will receive verbal feedback during the meetings and discussions regarding their final project topic and procedures, as they will be encouraged to discuss with the instructor about their chosen topic in advance. Students will receive verbal feedback regarding the methods and findings, and their presentation skills and during their final presentation. Students will receive written feedback regarding the quality and areas for improvement of their reflection papers in their assignments.

**Learning and Teaching approach**

| **Approach** | **How does this approach support you in achieving the learning outcomes?** |
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| Lecture | The class will be conducted in a manner that combines elements of a lecture and seminar. This approach will promote individual learning as well as interactive, team-based learning through in-class discussion. Both the lecture and discussion will encourage students to think critically about the psychological principles behind design and practice psychological methods to solve design problems. |

**Reading and References**

Norman, D. A. (1988). The psychology of everyday things. New York: Basic Books.
Norman, D. A. (2005). Emotional Design: Why We Love (or Hate) Everyday Things. New York, NY: Basic Books.

**Course Policies and Student Responsibilities**

(1) General

You are expected to complete all assigned pre-class readings and activities, attend all classes punctually and take all scheduled assignments and tests by due dates. You are expected to take responsibility to follow up with course notes, assignments and course related announcements for sessions you have missed. You are expected to participate in all class discussions and activities.

(2) Absenteeism

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved

activities supported by an excuse letter from the relevant bodies. If you miss a lecture, you must inform the course instructor via email prior to the start of the class.

3) Compulsory assignments
You are required to submit your assignments and research paper by the due date, and do the final presentation on a designated date.

**Academic Integrity**

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

**Planned Weekly Schedule**

| Week | Topic | ILO | Readings/ Activities |
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| Week 1 | Introduction: The Psychology of Design | 1 | 2 hour lecture + 1 hour group discussion |
| Week 2 | Theory of Attention and Perception | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 3 | Theory of Signal Detection and Models of Human-technology interaction | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 4 | User-centered Design I: Theory and Principles | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 5 | User-centered Design II: Methods and Analysis | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 6 | Emotion and Design | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 7 | Social and Design | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 8 | Culture and Design | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 9 | Creativity and Design | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 10 | Complexity and Design | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |

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| Week 11 | Product design and evaluation in the industry | 1,2,3,4 | 2 hour lecture + 1 hour group discussion |
| Week 12 | Student research project presentation | 1,2,3,4,5 | Student presentations |
| Week 13 | Student research project presentation | 1,2,3,4,5 | Student presentations |