

## Module Template for New and Revised Undergraduate Modules<sup>1</sup>

Module Code	PSU34760
Module Name	THE PSYCHOLOGY AND NEUROSCIENCE OF SPONTANEOUS THOUGHT
ECTS credit weighting	5 ECTS
Semester taught	Michaelmas Term
Module Coordinator/s	Paul Dockree

### Module Learning Outcomes with embedded Graduate Attributes

#### On successful completion of this module students should be able to:

- LO1: Describe and explain the theoretical perspectives concerning how we define and elucidate the nature of spontaneous thought and mind-wandering
- LO2: Critically examine the range of rapidly developing interdisciplinary approaches to investigate the neuroscience of spontaneous thought via brain imaging, electrophysiological studies and experience sampling in the laboratory and in daily life.
- LO3: Explain how clinical conditions can give empirical insight into the nature and utility of spontaneous thought
- LO4: Critically evaluate how spontaneous thought is augmented by creative thinking, culture, environment and psychopharmacology.
- LO5: Critically discuss the role of contemplative traditions underpinning meditation, mindfulness and metacognitive strategies as a means of catching the wandering mind and enabling the individual to flourish.

This module primarily develops the Trinity Graduate Attribute "**To Think Independently**" through the critical evaluation of theories, methodologies, and interdisciplinary evidence concerning spontaneous thought and mind-wandering. It also supports "**To Develop Continuously**" by engaging students with rapidly evolving research in cognitive neuroscience and psychology. "**To Act Responsibly**" is fostered through consideration of clinical, cultural, ethical, and wellbeing-related implications of spontaneous thought, while "**To Communicate Effectively**" is developed through the critical discussion and synthesis of complex interdisciplinary perspectives.

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<sup>1</sup> [An Introduction to Module Design](#) from AISHE provides information on designing and re-designing modules.

## Module Content

Mental experience is not always anchored to the present moment; instead, when the constraints of cognitive control are released, the mind is free to transition from one mental state to the next. Spontaneous thought encompasses a range of mental phenomena that are an intrinsic part of the human experience. These include mind-wandering, daydreams, vivid fantasy, inner speech, creative insights and the nightly manifestations of dreaming. There are also negative ramifications of an excessively wandering mind including distractibility in disorders of attention, obsessive thoughts in OCD, uncontrolled ruminations in depression, and disinhibited traumatic imagery in PTSD. This module will ask, what are these various unconstrained modes of thought? How are they generated and instantiated in the brain? Why does the mind and brain devote time and energy to generating these spontaneous mental states? Moreover, this course will consider how we can guard against unwarranted mind-wandering by reflecting on techniques such as meditation, mindfulness and their philosophical origins, and how altered states of consciousness can shed light on the content and dynamics of spontaneous thought.

The module will consist of 11 lectures which will convey novel cross-disciplinary perspectives from neuroscience, psychology, philosophy, meditative practices, education and clinical research to gain insight into a broad class of mental phenomena collectively described as spontaneous thought.

### Lecture topics

1. The emerging science of spontaneous thought
2. The brain dynamics of spontaneous thought
3. Clinical neuropsychological insights into Spontaneous Cognition
4. Meaning, creativity and spontaneity
5. Dysfunctional alternations of spontaneous thought
6. Mind-wandering in daily life
7. Cultural and Pharmacological influence on unconstrained thought
8. Sleep phenomena and spontaneous thought
9. Hearing voices and hallucinations
10. Catching the wandering mind: Meditation and Spontaneous Thought
11. Preparing for an Open Book examination

## Teaching and Learning Methods

The purpose of the lectures will be to introduce students to theoretical and conceptual approaches to the study of spontaneous thought; to highlight novel methodological designs required to investigate these unconstrained cognitive processes in the laboratory and in daily life; to encourage students to evaluate the benefits and risks of spontaneous thought in neurologically healthy and clinical populations; to promote a synthesis of understanding of mind-wandering from cross-disciplinary standpoints; to enable students to reflect on different self-initiated strategies for augmenting spontaneous thought and the role of environment, context and culture in shaping spontaneous thought.

The module is delivered through weekly in-person lectures, with recorded lectures also provided after each lecture; however, in-person attendance is required. Students are encouraged to participate actively through questions and discussion. Teaching is research-led and informed by current journal articles available on Blackboard, while students are also expected to engage in independent research. Relevant podcasts and videos may be provided to complement the reading materials.

**Assessment Details<sup>2</sup>**

Please include the following:

- **Assessment Component**
- **Assessment description**
- **Learning Outcome(s) addressed**
- **% of total**
- **Assessment due date**

Assessment Description	LO Addressed	% of total	Week due
<p><b>Assessed by two essay-based 'open book' exam questions</b> The first question will assess topics from the first half of the module (before reading week). The second essay will assess topics in the second half of the module (after reading week).</p> <p>A dedicated information session will be provided to prepare students for the Open-book exam format. This will include:</p> <p><i>1/ Exam Structure and Strategy</i>  <i>2/Analysis of Past Paper Questions</i>  <i>3/How to deconstruct an example question</i>  <i>4/How to plan an essay under exam conditions</i>  <i>5/Open-book preparation before the exam</i>  <i>6/Group exercise in organising knowledge pre-exam.</i></p>	LO1-LO5	100%	During Michaelmas Term Assessment week (Dec 11-22 2026)

**Inclusive Curriculum**

*All modules should be inclusive for all students who learn differently. Please respond to the following questions (i.e. ensuring the course supports engagement and representation of all students)*

<sup>2</sup> <https://www.tcd.ie/CAPSL/resources/assessment>

	<b>PLEASE TICK</b>
1. Have you reviewed the teaching / assessment methods and materials for possible barriers to learning, e.g. students with English as a second language, disabilities, significant external responsibilities, students with IT issues / requiring specific accessibility software etc.?	<input checked="" type="checkbox"/>
2. Have you adapted your resources and teaching materials taking into account Trinity's Accessible Information Guidelines ( <a href="https://www.tcd.ie/disability/teaching-info/TIC/materials.php">https://www.tcd.ie/disability/teaching-info/TIC/materials.php</a> )?	<input checked="" type="checkbox"/>
3. Does the content of your module address diversity? For example, including a diverse demographic profile of authors, diversity of ideas and perspectives, or representation (e.g. pictures of conditions on different skin tones), or by acknowledgement of the homogenous context of the discipline/topic?	<input checked="" type="checkbox"/>
<p>4. Highlight at least two ways which your course/module incorporates principles of inclusivity and accessibility into the curriculum design</p> <p><b>1. By providing a range of teaching approaches that incorporate traditional lecture-based teaching combined with opportunities for group discussions, Q&amp;A and multimedia presentations for effective learning.</b></p> <p><b>2. Providing additional sessions on assessment, with opportunity for Q&amp;A and Blackboard Discussion Board exchange.</b></p> <p><i>(i.e. supports engagement and representation of <b>all</b> Trinity students, presents information and content in a variety of ways, and offers variety and options of assessment type. See: <a href="#">Universal Design for Learning - AHEAD</a> for more information and guidance, and <a href="#">Inclusive Curriculum - Equality - Trinity College Dublin (tcd.ie)</a> for insights from Trinity students)</i></p>	

**Contact Hours and Indicative Student Workload<sup>3</sup>**

**11 scheduled lectures and 110 hours of Independent Study (comprising review and study of topics and preparation and planning for open-book examination).**

**Indicative Resources**

<sup>3</sup> [TEP Guidelines on Workload and Assessment](#)

**Recommended Reading List (selection)**

Reading: There will be no core textbook for this module. Original research articles and review articles from journals including, *Psychological Review*, *Consciousness and Cognition*, *Neuropsychologia*, *NeuroImage*, and *Psychological Bulletin* will be uploaded to Blackboard on a weekly basis in advance of each lecture.

A useful review article for orientation to the topic is:  
Jonathan Smallwood and Jonathan W. Schooler ***The Science of Mind Wandering: Empirically Navigating the Stream of Consciousness*** Annual Review of Psychology 2015 Vol. 66:487-518.

Useful websites linking to international labs studying mind-wandering and spontaneous thought:

<https://www.sciencedirect.com/topics/psychology/mind-wandering>  
<https://labs.psych.ucsb.edu/schooler/jonathan/research>  
<http://www.christofflab.ca>  
<https://themindwanders.wordpress.com>

**Module Pre-requisite**

None.

**Module Co-requisite**

**Module Website**

All module materials will be provided through TCD Blackboard.

**Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.**

No