

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: UČENJE IN KREIRANJE ZNANJA - OD MOŽGANOV DO IZKUSTVA
Course title: Learning and knowledge creation – from brain to experience

Vrsta predmeta / Course type

D - Splošni izbirni predmet

Univerzitetna koda predmeta / University course code:

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Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
15	0	15		0	120	5

Nosilec predmeta / Lecturer:

doc. dr. Toma Strle

Jeziki /**Predavanja / Lectures:** slovenščina, angleščina**Languages:****Vaje / Tutorial:** slovenščina, angleščina**Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:**

Veljajo splošni pogoji za vpis v letnik, v katerem se predmet nahaja.

Prerequisites:

General admission requirements for the academic year in which the course is provided.

Vsebina:

Pregled osnovnih pogledov na duševnost z vidika kognitivne znanosti in s tem povezanih pogledov na kreiranje znanja in učenje.

Pregled pogledov na duševnost in z njimi povezanih modelov učenja:

1. Sem računalnik? Duševnost, kreiranje znanja in učenje kot informacijski proces (kaj pomeni učenje pri računalniku in kaj pri ljudeh; podobnosti in ključne razlike).

2. Sem možgani? Duševnost, kreiranje znanja in učenje z vidika možganov (pogled nevroznanosti (od molekularne do funkcionalne ravni delovanja možganov), čustva, občutki, razum in refleksija, vprašanje redukcije duševnih procesov in učenja na delovanje možganov, vprašanje prispevka nevroznanosti k razumevanju procesov učenja in kreiranja znanja, neuroedukacija).

3. Sem telo? Duševnost, kreiranje znanja in učenje z vidika utelešene kognicije (vloga telesa pri duševnih procesih in kreiranju znanja, umeščenost v okolje in pomen interakcije z okoljem).

4. Sem doživljanje? Vloga doživljanja pri duševnih procesih, kreiranju znanja in učenju (kritika nekaterih pristopov preučevanja duševnosti, kreiranja znanja in učenja, vloga zavesti).

Content (Syllabus outline):

Overview of basic cognitive science perspectives on human mind and related views on knowledge creation and learning.

Overview of basic conceptions of human mind and related models of learning:

1. Am I computer? Mind, knowledge creation and learning as an information process (what is learning in computers and what in humans; similarities and key differences).

2. Am I brain? Mind, knowledge creation and learning from the perspective of the brain (neuroscientific perspective (from molecular to functional level of brain operation), emotions, feelings, reason and reflection, the question of reducing cognition and learning to brain functioning, the question of contribution of neuroscience to understanding of knowledge creation and learning processes, neuroeducation).

3. Am I body? Mind, knowledge creation and learning from the perspective of embodied cognition (role of the body in cognitive processes and knowledge creation, situatedness in environment and the importance of interaction with environment).

4. Am I experience? The role of experience in cognition, knowledge creation and learning (critique

Različni načini mišljenja in z njimi povezane strategije kreiranja znanja in razumevanja (razlike in podobnosti različnih pristopov pri preučevanju duševnosti, kreiranja znanja in učenja povezane z različnimi načini mišljenja; doživljanje in vedenje). Introspekcija: kako mislim in kako se učim? Poročanje o prvoosebni raziskovanju svojih načinov mišljenja in z njimi povezanih učnih strategij.

of some approaches to studying the human mind, knowledge creation and learning, the role of consciousness).

Different modalities of thinking and related strategies of knowledge creation and understanding (differences and similarities of various approaches to studying cognition, knowledge creation and learning related to different modalities of thinking; experience and behavior). Introspection: how do I think and how do I learn? Reporting on first-person inquiry of one's own modalities of thinking and with that connected learning strategies.

Temeljni literatura in viri / Readings:

1. Bermúdez, J.L. 2020. Cognitive Science: An Introduction to the Science of the Mind. Cambridge University Press.
 2. Howard-Jones, P.A. (2009). Introducing Neuroeducational Research: Neuroscience, Education and the Brain from Contexts to Practice. Routledge.
 3. British Neuroscience Association, European Dana Alliance for the Brain. (2003). Neuroscience, Science of the Brain: An Introduction for Young Students.
 4. Schachter, Gilbert, Nock, & Wegner. (2019). Psychology. Worth Publishers.
 5. Tokuhama-Espinosa, T. 2011. Mind, Brain, and Education Science: A Comprehensive Guide to the New Brain-Based Teaching. WW Norton & Co.
- Literatura se v vsakem študijskem letu posodablja. References will be updated each academic year.

Cilji in kompetence:

1. Poznavanje in razumevanje osnovnih pogledov na »delovanje« duševnosti (paradigme sodobne kognitivne znanosti) in s tem povezanih pogledov na kreiranje znanja in učenje.
2. Sposobnost z interdisciplinarnega vidika ovrednotiti koncepte in metode temeljnih disciplin in pristopov pri preučevanju duševnosti, kreiranja znanja in učenja.
3. Vzpodbujanje študentov v razmislek o svojem stališču do temeljnih vprašanj o duševnosti, kreiranju znanja in učenja.
4. Predstavitev redukcionističnih in humanistično-filozofskih pogledov na duševnost, kreiranje znanja in učenje.
5. Fleksibilna uporaba znanja v praksi, integracija teorije s prakso.
6. Načrtovanje in vodenje skupinskega dela.
7. Zmožnost delovanja v okolju, kjer so prisotna različna stališča in potencialno konfliktna situacije.
8. Sposobnost načrtovanja učenja in organizacije časa.

Objectives and competences:

1. Knowledge and understanding of basic perspectives of how the mind »works« (paradigms of contemporary cognitive science) and with that related views on knowledge creation and learning.
2. Ability to evaluate concepts and methods of core disciplines and approaches to studying the mind, knowledge creation and learning from an interdisciplinary perspective.
3. Encouraging students to reflect on their own standpoint towards fundamental questions about the mind, knowledge creation and learning.
4. Introducing students to reductionist and humanistic-philosophical views of the mind, knowledge creation and learning.
5. Flexible use of gained knowledge in applied contexts, integration of theory and praxis.
6. Planning and leading teamwork.
7. Ability to work in environments where differing points of view and potentially conflicting situations exist.
8. Ability to plan studying and ability to manage time.

Predvideni študijski rezultati:

Intended learning outcomes:

<p>1. Poznavanje in razumevanje različnih pristopov in metodologij, ki so pomembni pri preučevanju duševnosti, kreiranju znanja in učenja ter širše uporabljeni v kognitivni znanosti.</p> <p>2. Sposobnost iskanja razlik in podobnosti med različnimi pristopi do kreiranja znanja in učenja.</p> <p>3. Sposobnost branja, predstavljanja, pisanja, refleksije in diskutiranja o vsebinah znanstvene literature, temeljnih konceptih in teorijah.</p> <p>4. Sposobnost kritične refleksije in opazovanje lastnega doživljanja.</p> <p>5. Zmožnost konstruktivnega in učinkovitega dela v skupini.</p>

<p>1. Knowledge and understanding of various approaches and methods important for studying mind, knowledge creation and learning that are more widely used in cognitive science.</p> <p>2. Ability to search for differences and similarities between different approaches to knowledge creation and learning.</p> <p>3. Ability to read, present, write about, reflect upon and discuss content of scientific literature, core concepts and theories.</p> <p>4. Ability to critically reflect and observe one's own experience.</p> <p>5. Ability to work constructively and effectively in groups.</p>
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Metode poučevanja in učenja:

<p>1. Predavanja z aktivno udeležbo študentov (diskusije, vprašanja, analiza lastnih primerov, delo v skupinah, samostojni študij literature, ipd.).</p> <p>2. Vaje, ki temeljijo na samostojnem študiju in kritičnem ovrednotenju različnih virov (raziskovalno delo, priprava in predstavitev tez v seminarski skupini z</p> <p>3. diskusijo, samostojno vodenje seminarja z moderiranjem diskusije, pisna seminarska naloga).</p>
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Learning and teaching methods:

<p>1. Lectures with active participations of students (discussions, questions, analysis of one's own cases, group work, independent study of literature, etc.).</p> <p>2. Practice based on independent study and critical assessment of different sources</p> <p>3. (research, preparation and presentation of theses in a seminar group with discussion, independent seminar management with moderating discussion, written seminar).</p>

Načini ocenjevanja:

**Delež (v %) /
Weight (in %)**

Assessment:

<p>Poročilo o prvoosebni raziskovanju svojih učnih strategij. Seminarska naloga v skupini, ki vsebuje pripravo, predstavitev in vodenje skupinske diskusije o izbrani temi. Kratka poročila, ki odražajo razumevanje glavnih konceptov, teorij in tem.</p>	<p>50</p>	<p>Report on first-person inquiry of one's own learning strategies. Seminar written in a group including preparation, presentation and leading a discussion about the chosen topic. Short reports, reflecting comprehension of main concepts, theories and topics.</p>
<p>Pisni izpit</p>	<p>50</p>	<p>Pisni izpit</p>
		<p>/</p>

Reference nosilca / Lecturer's references:

<p>doc. dr. Toma Strle:</p> <p>1. Strle, Toma. On the relation between theory and experience, and the intersubjective nature of the human mind. <i>Constructivist Foundations</i>, 2019, vol. 14, no. 2, str. 191-193.</p> <p>2. Strle, Toma. Looping minds: how cognitive science exerts influence on its findings. <i>Interdisciplinary description of complex systems</i>, 2018, vol. 16, issue 4, str. 533-544.</p> <p>3. Strle, Toma, Markič, Olga. Looping effects of neurolaw, and the precarious marriage between neuroscience and the law. <i>Balkan journal of philosophy</i>, 2018, vol. 10, issue 1, str. 17-26.</p>
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4. Strle, Toma. Self-referential and enactive nature of first- and third-person sciences of the mind. *Constructivist Foundations*, 2018, vol. 13, no. 2, str. 230-231.
5. Strle, Toma. Feeling and thinking about the future: offline metacognition in decision-making. *Interdisciplinary description of complex systems*, 2016, letn. 14, št. 4, str. 331-343.