

	<b>UČNI NAČRT PREDMETA/COURSE SYLLABUS</b>
<b>Predmet</b>	<b>Holistična teorija življenja kot osnova zdravilstva</b>
<b>Course title</b>	<b>Holistic Theory of Life as the Basis of Alternative Medicine</b>

<b>Študijski program in stopnja</b> <b>Study programme and level</b>	<b>Študijska smer</b> <b>Study field</b>	<b>Letnik</b> <b>Academic year</b>	<b>Semester</b> <b>Semester</b>
Fitoterapija/I. stopnja	Ni smeri študija	I.	2.
Phytotherapy/I <sup>st</sup> level	No specific field	I <sup>st</sup>	2 <sup>nd</sup>

<b>Vrsta predmeta/Course type</b>	obvezni/obligatory
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<b>Univerzitetna koda predmeta/University course code</b>	FIT_I_UN_II
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<b>Predavanja</b> <b>Lectures</b>	<b>Sem. vaje</b> <b>Tutorial</b>	<b>Kab. vaje</b> <b>Cabinet tutorial</b>	<b>Lab. vaje</b> <b>Laboratory work</b>	<b>Teren. vaje</b> <b>Field work</b>	<b>Samost. delo</b> <b>Individ. work</b>	<b>ECTS</b>
45	15				65	5

<b>Nosilec predmeta/Lecturer:</b>	prof. dr. Igor Jerman
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<b>Jeziki/</b> <b>Languages:</b>	<b>Predavanja/Lectures:</b>	slovenski/Slovenian
	<b>Vaje/Tutorial:</b>	slovenski/Slovenian

<b>Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:</b>	<b>Prerequisites:</b>
<ul style="list-style-type: none"> <li>Vpis v prvi letnik študijskega programa.</li> <li>Študent mora pred izpitom pripraviti in predstaviti seminarsko nalogo.</li> </ul>	<ul style="list-style-type: none"> <li>The prerequisite for inclusion is enrolment in the first year of study.</li> <li>Students have to successfully prepare and present a seminar paper before the examination.</li> </ul>

<b>Vsebina:</b>	<b>Content (Syllabus outline):</b>
<p><i>Struktura in dinamika znanosti s posebnim ozirom na zdravilstvo:</i></p> <ul style="list-style-type: none"> <li>širši družbeni pomen znanosti s posebnim ozirom na zdravilstvo,</li> <li>znanost kot spremenljiv sistem znanja</li> <li>vertikalna struktura znanstvene misli in delovanja (paradigma, teorija, empirična raven),</li> <li>spremenljivi koncepti organizmov in življenja skozi zgodovino: relativnost sodobnih uveljavljenih pogledov na življenje,</li> </ul>	<p><i>Structure and dynamics of science with special regard to healing practice:</i></p> <ul style="list-style-type: none"> <li>a broader social significance of science with special regard to <i>healing practice</i>,</li> <li>science as a changing system of knowledge,</li> <li>vertical structure of scientific thought and work (paradigm, theory, empirical level),</li> <li>varying concepts of organisms and life through history: the relativity of modern established views on life,</li> </ul>

- znanstveno, poljudno-znanstveno, kvazi-znanstveno,
- izzivi znanstvenega raziskovanja, ki se tičejo zdravilstva (skeptizem, ne-kritičnost, ne navezanost, hrabrost in varnost ...),
- različnosti v pogledih na življenje v sodobni biologiji (medicine) in zdravilstvu.

*Koncept življenja, zdravja in zdravljenja v raznih tradicijah in kulturah:*

- hindujska tradicija,
- kitajska tradicija,
- starogrški pogled na življenje,
- evropska renesančna in kasnejša tradicija (alkimisti, Paracelsus, Steiner).

*Razvoj biološke misli od starih Grkov do danes:*

- antika,
- renesansa,
- novoveški mehanicizem,
- Lamarckov organicizem,
- 19. stoletje: umik organicizma, Darwinova teorija, rojstvo genetike,
- 20. stoletje: rojstvo novega organicizma (Bertalanffy, strukturalizem), uveljavitev neodarvinizma in molekulskega mehanicizma,
- 21. stoletje: postopno umikanje redukcionizma (»-omike«), nove biofizikalne teorije življenja.

*Temelji zdravilstva izhajajoč iz sodobne biologije:*

- molekulski redukcionizem: zdravilne snovi,
- sistemska teorija kot temelj zdravilstva,
- bioelektromagnetika: energijski pogled na organizem in življenje, možnost zdravilnega delovanja na tej ravni,
- kvantna biologija: holizem organizma, možnost zdravljenja na tej podlagi,
- biopolje, peto polje, morfogenetsko polje,
- pomen vpetosti organizmov (rastlin) v širši prostor,

- scientific, popular-scientific, quasi-scientific,
- challenges of scientific research concerning *healing practice* (scepticism, non-criticism, non-attachment, courage and safety ...),
- diversity in views on life in modern biology (medicine) and *healing practice*.

*The concept of life, health, and healing in various traditions and cultures:*

- Hindu tradition,
- Chinese tradition,
- An ancient Greek view of life,
- European Renaissance and later traditions (alchemists, Paracelsus, Steiner).

*The development of biological thought from ancient Greeks to the present:*

- Antiquity,
- Renaissance,
- Early Modern Period mechanism,
- Lamarck's organicism,
- 19<sup>th</sup> century: the withdrawal of organicism, Darwin's theory, the birth of genetics,
- 20<sup>th</sup> century: the birth of a new organicism (Bertalanffy, structuralism), the introduction of neo-Darwinism and molecular mechanism,
- 21<sup>st</sup> Century: gradual retreat of reductionism ("-omics"), the new biophysical theories of life.

*Foundations of healing practice originating from contemporary biology:*

- molecular reductionism: healing substances,
- system theory as the basis of healing,
- bioelectromagnetics: energy view of the organism and life, the possibility of healing at this level,
- quantum biology: holism of the organism, the possibility of healing on this basis,
- biofield, fifth field, morphogenetic field

<ul style="list-style-type: none"> <li>časovni in prostorski vidiki te vpetosti za izostrene učinke fitoterapije.</li> </ul> <p><i>Raziskave biopolja in njihovi izsledki:</i></p> <ul style="list-style-type: none"> <li>zgodovina odkrivanja biopolja do današnjih dni,</li> <li>ugotovljene lastnosti biopolja,</li> <li>bipolje kot temelj zdravja in zdravilstva.</li> </ul> <p><i>Voda:</i></p> <ul style="list-style-type: none"> <li>voda kot temelj življenja,</li> <li>dinamična urejenost vode – razlike kemijsko enakih vod,</li> <li>molekulska informacija (emulacija snovi) in njeno delovanje na organizme.</li> </ul> <p><i>Odzivnost rastlin:</i></p> <ul style="list-style-type: none"> <li>znanstvene raziskave rastlinske inteligentnostim</li> <li>rastline kot senzitivna in odzivna bitja.</li> </ul>	<ul style="list-style-type: none"> <li>the importance of the inclusion of organisms (plants) into the wider space,</li> <li>The temporal and spatial aspects of this integration for the sharpened effects of phytotherapy.</li> </ul> <p><i>Biofield researches and their findings:</i></p> <ul style="list-style-type: none"> <li>the history of the biofield investigation until the present time,</li> <li>the found properties of the biofield</li> <li>biofield as the basis of health and <i>healing practice</i>.</li> </ul> <p><i>Water:</i></p> <ul style="list-style-type: none"> <li>water as the basis of life,</li> <li>dynamic order of water - differences in chemically identical waters,</li> <li>molecular information (emulation of substance) and its working on organisms,</li> </ul> <p><i>Responsiveness of the plants:</i></p> <ul style="list-style-type: none"> <li>scientific research on plant intelligence,</li> <li>plants as sensitive and responsive organisms.</li> </ul>
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<p><b>Temeljna literatura in viri/Readings:</b></p> <p><b>Temeljna literatura/Basic literature</b></p> <ul style="list-style-type: none"> <li>Jerman, I., Štern, A. (1996). Gen v valovih. Porajanje nove biologije. Monografija. Ljubljana: Znanstveno publicistično središče.</li> <li>Jerman, I., Štern, A. (1999). Evolucija s teoretično biologijo. Ljubljana: Študentska založba.</li> <li>Jerman, I. Skripta iz metodologije znanosti (interno gradivo). Dostopno na: <a href="http://bion.si/wp-content/uploads/2019/07/Jerman_skripta-iz-metodologije-znanosti.pdf">http://bion.si/wp-content/uploads/2019/07/Jerman_skripta-iz-metodologije-znanosti.pdf</a>.</li> <li>Calvo, P., Gagliano, M., Souza, G. M., &amp; Trewavas, A. (2020). Plants are intelligent, here's how. <i>Annals of Botany</i>, 125(1), 11-28.</li> <li>Rubik, B., Muehsam, D., Hammerschlag, R., &amp; Jain, S. (2015). Biofield science and healing: history, terminology, and concepts. <i>Global advances in health and medicine</i>, 4(1_suppl), gahmj-2015.</li> <li>Hecht, L. (2011). New evidence for a non-particle view of life. <i>EIR Science</i>, 72-77; dosegljivo: <a href="https://21sci-tech.com/Articles_2011/Winter-2010/Montagnier.pdf">https://21sci-tech.com/Articles_2011/Winter-2010/Montagnier.pdf</a>.</li> </ul> <p><b>Priporočljiva literatura/Recommended literature</b></p> <ul style="list-style-type: none"> <li>Levin, M., &amp; Martyniuk, C. J. (2018). The bioelectric code: An ancient computational medium for dynamic control of growth and form. <i>Biosystems</i>, 164, 76-93.</li> <li>Bischof, M., &amp; Del Giudice, E. (2013). Communication and the emergence of collective behavior in living organisms: a quantum approach. <i>Molecular biology international</i>, 2013.</li> <li>Bertolaso M, Buzzoni M (2017) Causality and Levels of Explanation in Biology. In: Paolini Paoletti M, Orilia F (eds) <i>Philosophical and Scientific Perspectives on Downward Causation</i>. Routledge, London/New York, pp. 164-179.</li> </ul>
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- Walker, S. I., & Davies, P. C. (2013). The algorithmic origins of life. *Journal of the Royal Society Interface*, 10(79), 20120869.
- Bellavite, P., Marzotto, M., Oliosio, D., Moratti, E., & Conforti, A. (2014). High-dilution effects revisited. I. Physicochemical aspects. *Homeopathy*, 103(01), 4-21.
- Bischof, M., (1998). Holism and field theories in biology. In *Biophotons* (pp. 375-394). Springer, Dordrecht.
- Kafatos, M.C., Chevalier, G., Chopra, D., Hubacher, J., Kak, S. and Theise, N.D., (2015). Biofield science: current physics perspectives. *Global advances in health and medicine*, 4(1\_suppl), pp.gahmj-2015.
- Gagliano, M., Ryan, J.C., Vieira, P. (2017). Introduction to The Language of Plants: Science, Philosophy, Literature, Univ. of Minnesota Press, Pridobljeno s [https://www.researchgate.net/publication/317525273\\_Introduction\\_to\\_The\\_Language\\_of\\_Plants\\_Science\\_Philosophy\\_Literature](https://www.researchgate.net/publication/317525273_Introduction_to_The_Language_of_Plants_Science_Philosophy_Literature).
- Gagliano, M. (2017). The mind of plants: thinking the unthinkable. *Communicative & integrative biology*, 10(2), 38427.
- za uvod v znanost o življenju za nebiologe: <https://www.sonlight.com/attachments/250-00/250-00-sample.pdf>
- Mathews, J., & Levin, M. (2018). The body electric 2.0: recent advances in developmental bioelectricity for regenerative and synthetic bioengineering. *Current opinion in biotechnology*, 52, 134-144.
- Soto, A. M., & Sonnenschein, C. (2018). Reductionism, organicism, and causality in the biomedical sciences: a critique. *Perspectives in biology and medicine*, 61(4), 489-502.
- Bellavite, P., Marzotto, M., Oliosio, D., Moratti, E., & Conforti, A. (2014). High-dilution effects revisited. I. Physicochemical aspects. *Homeopathy*, 103(01), 4-21.

<b>Cilji in kompetence:</b>	<b>Objectives and competences:</b>
<p><i>Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc:</i></p> <ul style="list-style-type: none"> <li>• usvojiti strokovno-teoretično znanje s področja holistične teorije življenja, ki je potrebno za kakovostno in globlje razumevanje in izvajanje fitoterapije,</li> <li>• usposobiti se za sporazumevanje in argumentirano razpravo v stroki in med strokami,</li> <li>• sposobnost učinkovitega prenašanja teoretičnega znanja in veščin uporabnikom,</li> <li>• razumevanje splošne strukture temeljne discipline (stroke) ter povezanosti med njenimi poddisciplinami,</li> <li>• razumevanje in uporaba metod kritične analize in razvoja teorij ter njihova uporaba v reševanju konkretnih delovnih problemov,</li> <li>• poznavanje in razumevanje posebnosti fitoterapije v primerjavi z ostalimi terapevtskimi pristopi,</li> </ul>	<p><i>The learning unit mainly contributes to the development of the following general and specific competences:</i></p> <ul style="list-style-type: none"> <li>• to adopt professional-theoretical knowledge in the field of holistic theory of life, necessary for quality and deeper understanding and implementing phytotherapy,</li> <li>• to qualify for communication and argumentative discussion in the profession and among professions,</li> <li>• the ability to effectively transfer the theoretical knowledge and skills to users,</li> <li>• understanding basic structure of the fundamental discipline (expertise) and the connection among its subdisciplines,</li> <li>• understanding and using methods of critical analysis and theory development, using them in solving concrete work-related problems,</li> <li>• knowledge and understanding of the specific features of phytotherapy in</li> </ul>

<ul style="list-style-type: none"> <li>• kritično razumevanje utemeljenosti fitoterapije na 1) znanstvenih dognanjih in 2) na izkušnjah ljudske medicine oz. tradicionalnega zeliščarstva ter dopolnjevanje obeh,</li> <li>• koherentno obvladovanje temeljnega znanja, sposobnost povezovanja znanja z različnih področij in aplikacij,</li> <li>• sposobnost umeščanja novih, velikokrat zavajajočih, informacij in interpretacij v kontekst biomedicine,</li> <li>• sposobnost analize, sinteze in predvidevanja rešitev ter posledic.</li> </ul>	<p>comparison with other therapeutic approaches,</p> <ul style="list-style-type: none"> <li>• a critical understanding of phytotherapy validation by 1) scientific findings and 2) of folk / traditional herbal medicine, and the complementarity of both,</li> <li>• coherent mastering of the basic knowledge and the ability to link the knowledge from various areas and its applications,</li> <li>• the ability to categorise new, often misleading information and interpretations in the context of biomedicine,</li> <li>• the ability of analysis, synthesis and prediction of solutions and consequences.</li> </ul>
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<b>Predvideni študijski rezultati:</b>	<b>Intended learning outcomes:</b>
<p><b>Študent/študentka:</b></p> <ul style="list-style-type: none"> <li>• pozna biološke temelje zdravilstva in fitoterapije,</li> <li>• pozna tradicionalne koncepte življenja in zdravljenja ter jih zna umestiti v sodobno zdravilsko prakso,</li> <li>• pozna najnovejša spoznanja s področja univerzalne življenjske energije,</li> <li>• usvoji temeljna znanja znanosti o dinamični urejenosti vode za globlje razumevanje nekaterih fitoterapevtskih postopkov,</li> <li>• pozna rastline tudi kot inteligentna bitja v komunikaciji z okoljem,</li> <li>• razume dinamično naravo znanosti, ki z enim delom zavrača zdravilstvo, z drugim pa ga podpira,</li> <li>• razume sodoben holistični pogled na življenje, zdravljenje in zdravje, tudi z vidika zgodovinske perspektive,</li> <li>• razvije sposobnost kritičnega mišljenja do ideoloških in dogmatskih izjav nekaterih znanstvenih krogov glede zdravilstva,</li> <li>• zavezanost profesionalni etiki, vključujoč znanje o metodah evalvacije in optimizacije svojega dela ter o varovanju dostojanstva, zasebnosti in zaupnosti posameznikov</li> </ul>	<p><b>Students:</b></p> <ul style="list-style-type: none"> <li>• know the biological foundations of healing practice and phytotherapy;</li> <li>• know the traditional concepts of life and healing and can place them into modern healing practice;</li> <li>• know the latest findings from the field of universal life energy;</li> <li>• adopt basic knowledge of science regarding the dynamic ordering of water for the sake of a deeper understanding of phytotherapeutic procedures;</li> <li>• know the plants as intelligent creatures in communication with the environment;</li> <li>• understand the dynamic nature of science, which rejects healing practice by one part, while supporting it by another;</li> <li>• understand a modern holistic view of life, healing, and health, also from a historical perspective;</li> <li>• develop the ability of critical thinking vs. ideological and dogmatic declarations of certain scientific circles regarding healing practice;</li> <li>• dedication to professional ethics, including knowledge of methods of self-evaluating and self-optimizing, as well as of protecting the dignity, privacy and confidentiality of individuals.</li> </ul>

<b>Metode poučevanja in učenja:</b>	<b>Learning and teaching methods:</b>
<ul style="list-style-type: none"> <li>• <i>predavanja</i> z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov),</li> <li>• <i>seminarske vaje</i>: priprava, predstavitev in uspešen zagovor projektne/raziskovalne naloge, portfolio (reševanje problemov, študije primera, kritično presojanje, diskusija, refleksija izkušenj, vrednotenje, projektno delo, timsko delo).</li> </ul>	<ul style="list-style-type: none"> <li>• <i>lectures</i> with active student participation (explanation, discussion, questions, examples, problem solving),</li> <li>• <i>seminar tutorial</i>: preparation, presentation and a successful defence of a project paper, portfolio (problem solving, case studies, methods of critical thinking, discussion, reflection of experience, evaluation, project work, teamwork).</li> </ul>

<b>Načini ocenjevanja:</b>	<b>Delež (v %)</b> <b>Weight (in %)</b>	<b>Assessment:</b>
<p>Načini:</p> <ul style="list-style-type: none"> <li>• izpit</li> <li>• izdelava, predstavitev in zagovor seminarske naloge</li> </ul> <p>Ocenjevalna lestvica: ECTS.</p>	<p>60 %</p> <p>40 %</p>	<p>Types:</p> <ul style="list-style-type: none"> <li>• exam</li> <li>• preparation, presentation and defence of the seminar paper</li> </ul> <p>Grading scheme: ECTS.</p>