

UČNI NAČRT PREDMETA / COURSE SYLLABUS

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| Ime predmeta: | ELEKTRONSKO POSLOVANJE IN DIGITALIZACIJA OSKRBOVALNIH VERIG |
| Course title: | E-BUSINESS AND DIGITALIZATION OF SUPPLY CHAINS |

| Študijski program in stopnja Study programme and cycle | Študijska smer Study option | Letnik Year of study | Semester Semester |
|-------------------------------------------------------------------------|----------------------------------------------|---------------------------------------|------------------------------------|
| LOGISTIKA SISTEMOV 1. stopnja | | 3. | 6 |
| SYSTEM LOGISTICS 1 st degree | | 3. | 6 |

Vrsta predmeta (obvezni ali izbirni) /
Course type (compulsory or elective)

OBVEZNI

Univerzitetna koda predmeta / University course code:

UN

| Predavanja Lectures | Seminar Seminar | Vaje Tutorial | | | Klinične vaje Clinical training | Druge oblike študija Other forms of study | Samost. delo Individual work | ECTS |
|--------------------------------------|----------------------------------|--------------------------------|----|-----------|--------------------------------------------------|------------------------------------------------------------|-----------------------------------------------|-------------|
| 24 e-P 21 a-P | | AV | LV | EV | | | 60 | 5 |
| | | 21 | | 24 | | | | |

Nosilec predmeta / Course coordinator:

BORUT JEREB

Jeziki /Languages:

Predavanja / Lectures:

SLOVENSKI/SLOVENE

Vaje / Tutorial:

SLOVENSKI/SLOVENE

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Ni pogojev.

Prerequisites for enrolling in the course or for performing study obligations:

None.

Vsebina (kratek pregled učnega načrta):

Content (syllabus outline):

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| <ol style="list-style-type: none"> 1. Uvod v predmet <ol style="list-style-type: none"> a. Opredelitev pojmov b. Novi, na e-poslovanju in digitalizaciji temelječi poslovni modeli c. Uporabnost e-poslovanja in digitalizacije v oskrbovalni verigi d. Integriranost e-poslovanja in digitalizacije v oskrbovalni verigi e. Vrednostna veriga e-poslovanja 2. Tehnološki vidik <ol style="list-style-type: none"> a. Dokumenti v XML zapisu b. Slovenski in EU E-slog c. Delovanje in uporaba elektronskega podpisa, kriptografije in zgoščevalnih tabel d. Spletno trgovanje | <ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> a. Definition of concepts b. New, e-business and digitalization based models c. Implementation of e-business and digitalization in supply chain d. Integration of e-business and digitalization in supply chain e. E-business value-chain 2. Technological viewpoint <ol style="list-style-type: none"> a. Documents in XML format b. Slovene and EU e-style c. Operation and implementation of electronic signature, criptography and hash tables d. Online business |
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| 3. Organizacijski vidik a. Kontrolni cilji za IT (okvir CobiT 4.1) 4. Zakonodajni vidik a. Pregled zakonodaje s področja e-poslovanja (ZEPEP, ZVDAGA, ZVOP-2) 5. Osnove elektronskih dokumentnih sistemov a. Varna elektronska hramba gradiva b. Projekt izdelave notranjih pravil 6. Primeri uporabe rešitev digitalizacije v oskrbovalnih verigah | 3. Organizational viewpoint a. Control goals for IT (CobiT 4.1 framework) 4. Legislative viewpoint a. Review of e-business legislation (ZEPEP, ZVDAGA, ZVOP-2) 5. Fundamentals of electronic document systems a. Secure electronic storage of materials b. Elaboration of internal rules project 6. Examples of the implementation of digitalization solutions in supply chains |
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Temeljni literatura in viri / Reading materials:

1. Andreas Meier, Henrik Stormer; Business & eCommerce: Managing the Digital Value Chain; Springer; 1 edition (April 3, 2009); ISBN-10: 354089327X.
2. JEREB, Borut. Informatika in informacijska varnost : repetitorij. 1. izd. Maribor: Univerzitetna založba Univerze, 2019. ISBN 978-961-286-251-0. <http://press.um.si/index.php/ump/catalog/book/385>, doi: 10.18690/978-961-286-251-0.
3. E-gradivo predmeta.
4. ISO in ISO/IEC standardi, domača zakonodaja, aktualni EU dokument, ki se nanašajo na digitalno družbo
5. ISACA: COBIT 4.0, ValIT
6. Zakonodaja EU, ki je trenutno aktualna za vsebino predmeta Vsi viri se določijo za vsako šolsko leto posebej tik pred začetkom predavanja in so sestavni del učnega načrta v času (letu), ko se predmet izvaja.
7. Aktualne vsebine o rešitvah digitalizacije (študija o IT trendih).

Cilji in kompetence:

- Cilji:
- spoznajo in razumejo principe, poslovne modele ter integriranost e-poslovanja v oskrbovalni verigi,
 - znajo opredeliti koncepte, pristope ter zahteve v vseh življenjskih ciklih e-poslovanja,
 - spoznajo in razumejo priložnosti ter tveganja e-poslovanja in spletnega trgovanja,
 - spoznajo in prepoznajo različne tehnologije, okvirje ter standarde, ki se ažurno uporabljajo na področju e-poslovanja v logistiki in oskrbovalnih verigah,
 - definirajo, razlikujejo, klasificirajo in so sposobni opisati različne tehnologije, okvirje ter standarde, ki se uporabljajo na področju e-poslovanja v logistiki,
 - znajo opredeliti in izpostaviti uporabo tehnologije na realnem primeru iz področja e-poslovanja logističnega podjetja,
 - spoznajo in razumejo smernice, okvirje ter zakonodajo e-poslovanja.
 - spoznajo in razumejo XML na primeru e-sloga
 - spoznajo in razumejo okvir za upravljanje IT in e-poslovanja CobiT 4.1 v primeru digitalizacije logističnega procesa,
 - se spoznajo z primeri rešitev digitalizacije v

Objectives and competences:

- Objectives:
- learn and understand the principles, business models and the integration of e-commerce in the supply chain,
 - know how to identify concepts, approaches and requirements in all life cycles of e-business,
 - learn and understand the opportunities and risks of e-commerce and online trading,
 - learn and recognize various technologies, frames and standards that are updated in the field of e-commerce in logistics and supply chains,
 - define, differential, classify and are able to describe various technologies, frames and standards that are used in the field of e-commerce in logistics,
 - know how to define and expose the use of technology in real case from the field of e-business of the logistics company,
 - they learn and understand guidelines, frames and e-commerce legislation.
 - get acquainted with XML on the example of e-style,
 - get acquainted with and understand IT and e-business management framework CobiT 4.1 in the case of digitization of the logistics process,
 - get acquainted with examples of supply chains

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| <p>oskrbovalnih verigah.</p> <p>Kompetence:</p> <ul style="list-style-type: none"> • uporabljajo koncepte, pristope ter zahteve življenjskih ciklov e-poslovanja in so sposobni aktivnega sodelovanja pri izvajanju dnevnih nalog na področju oskrbovalnih verig, • sposobni so razlikovati, ovrednotiti uporabo in aplicirati različne tehnologije, okvirje ter standarde e-poslovanja na realnem poslovnem primeru logističnega podjetja, • sposobni so kategorizacije smernic, okvirjev in zakonodajo e-poslovanja, • so sposobni ustvariti, implementirati in uporabiti XML na primeru e-sloga (e-račun, e-naročilnico in e-dobavnico) v primeru poslovanja z elektronskimi dokumenti, • so sposobni uporabiti okvir za upravljanje IT in e-poslovanja CobiT 4.1 na realnem poslovnem primeru digitalizacije logističnega procesa, • spoznane rešitve digitalizacije oskrbovalnih verig so sposobni kritično ovrednotiti in jih aplicirati na realen posloven primer. | <p>digitization solutions.</p> <p>Competences:</p> <ul style="list-style-type: none"> • know how to use concepts, approaches and requirements of e-business life cycles and are capable to actively participate in the implementation of daily tasks in the field of supply chains, • are capable to differ, evaluate implementation and apply various e-business technologies, frames and standards in a real business case of logistics company, • they are capable to categorize guidelines, frames and e-business legislation, • are able to create, implement and use XML on the example of e-style (e-invoice, e-order form and e-delivery note) in case of electronic document business, • are capable to apply the framework for managing IT and e-business CobiT 4.1 in a real business case of logistics process digitalization, • are capable to critically evaluate and implement supply chains digitalization solutions to a real business case. |
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Predvideni študijski rezultati:

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| <p>Študent bo ob zaključku predmeta zmožen:</p> <ul style="list-style-type: none"> • prepoznati, opredeliti in pojasniti pomen uporabe ter delovanje e-poslovanja, • analizirati in interpretirati integriteto e-poslovanja z drugimi metodami znotraj poslovnih sistemov, • identificirati pomen e-poslovanja v logističnih organizacijah, • uporabiti in primerjati različne tehnološke vidike, tehnike, principe in rešitve znotraj sodobnega e-poslovanja na področju logistike, • raziskati pomen temeljnih konceptov organizacijskega vidika e-poslovanja, ga opisati in argumentirati njegovo uporabo v namene doseganja poslovnih ciljev organizacije, • diferencirati zakonodajo in regulative e-poslovanja, • naštetiti in interpretirati zakonodajo ter regulative pri e-poslovanju in jih aplicirati na primeru elektronskega poslovanja z dokumenti, • predlagati, načrtovati in organizirati uporabo rešitev digitalizacije znotraj oskrbovalne verige. <p>Prenesljive/ključne spretnosti in drugi atributi:</p> <ul style="list-style-type: none"> • študenti se usposobijo za uporabo teoretičnega znanja v praktičnih (poslovnih) primerih. |
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Intended learning outcomes:

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| <p>Upon completion, the student will be able to:</p> <ul style="list-style-type: none"> • recognize, define, and explain the importance of the use and operation of e-business, • analyse and interpret the integration of e-business with other methods within business systems, • identify the importance of e-business in logistics organizations, • applicate and compare the technological aspect, its techniques, principles, and solutions within modern e-business in the field of logistics, • explore the importance of the basic concepts of the organizational aspect of e-business, describe it and argue its use in order to achieve the business goals of the organization, • differentiate between legal requirements and regulations in e-business, • enumerate and interpret legal requirements and regulations in e-business and applicate them in the case of electronic document business, • propose, plan, and organize the use of digitalization solutions within the supply chain. <p>Transferable /Key Skills and other attributes:</p> <ul style="list-style-type: none"> • students gain the ability to apply theoretical knowledge to professional practice. |
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Metode poučevanja in učenja:

Predavanja: pri predavanjih študent spozna teoretične vsebine predmeta. Del predavanj se izvaja na klasični način v predavalnici, del pa v obliki e-predavanj (e-predavanja se lahko izvajajo na videokonferenčni način ali s pomočjo posebej v ta namen didaktično pripravljenih e-gradiv v virtualnem elektronskem učnem okolju).

Vaje: pri vajah študent utrdi teoretično znanje in spozna aplikativne možnosti. Del vaj se izvaja na klasični način v predavalnici, del pa v obliki e-vaj (e-vaje se lahko izvajajo na videokonferenčni način ali s pomočjo posebej v ta namen didaktično pripravljenih e-gradiv v virtualnem elektronskem učnem okolju).

Learning and teaching methods:

Lectures: students understand the theoretical frameworks of the course. Part of the lecture course is in a classroom while the rest is in the form of e-learning (e-lectures may be given via video-conferencing or with the help of specially designed e-material in a virtual electronic learning environment).

Tutorials: Students enhance their theoretical knowledge and are able to apply it. Part of the seminar is in a classroom while the rest is in the form of e-learning (e-tutorials may be given via video-conferencing or with the help of specially designed e-material in a virtual electronic learning environment).

| Načini ocenjevanja: | Delež (v %) / Share (in %) | Assessment methods: |
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| Opravljenosti obveznosti e-predavanj in e-vaj so pogoj za pristop k izpitu. | 40% | Successful completion of e-lectures and e-tutorials is a prerequisite for entering the exam. |
| Pisni izpit. | 40% | Written examination. |
| Vaje in/ali seminarske naloge. | 20% | Excercise or seminar work. |

Reference nosilca / Course coordinator's references:

- JEREB, Borut. Informatika in informacijska varnost : repertorij. 1. izd. Maribor: Univerzitetna založba Univerze, 2019. ISBN 978-961-286-251-0. <http://press.um.si/index.php/ump/catalog/book/385>, doi: 10.18690/978-961-286-251-0.
- JEREB, Borut, STOPKA, Ondrej, SKRÚCANÝ, Tomáš. Methodology for estimating the effect of traffic flow management on fuel consumption and CO2 production : a case study of Celje, Slovenia. *Energies*, ISSN 1996-1073, 2021, vol. 14, iss. 6, str. [1]-18, ilustr. <https://doi.org/10.3390/en14061673>, doi: 10.3390/en14061673.
- JEREB, Borut, GAJŠEK, Brigita, ŠIPEK, Gregor, KOVŠE, Špela, OBRECHT, Matevž. Traffic density-related black carbon distribution : impact of wind in a basin town. *International journal of environmental research and public health*, ISSN 1660-4601. [Online ed.], 2021, vol. 18, iss. 12, str. [1]-17, ilustr. <https://doi.org/10.3390/ijerph18126490>, doi: 10.3390/ijerph18126490
- JEREB, Borut, BATKOVIČ, Tanja, HERMAN, Luka, ŠIPEK, Gregor, KOVŠE, Špela, GREGORIČ, Asta, MOČNIK, Griša. Exposure to black carbon during bicycle commuting - alternative route selection. *Atmosphere*, ISSN 2073-4433, 2018, vol. 9, no. 1, str. 1-12. <https://www.mdpi.com/2073-4433/9/1/21>, doi: 10.3390/atmos9010021.
- JEREB, Borut. Mastering logistics investment management. *Transformations in business & economics*, ISSN 1648-4460, 2017, vol. 16, no. 1, str. 100-120, ilustr. <http://www.transformations.knf.vu.lt/40>.
- JEREB, Borut. The model for risk management and mastering them in supply chain. V: KOLINSKI, Adam (ur.), DUJAK, Davor (ur.), GOLINSKA-DAWSON, Paulina (ur.). *Integration of information flow for greening supply chain management*, (Ecoproduction (Berlin. Internet), ISSN 2193-4622). Cham: Springer. cop. 2020, str. 339-373. <https://doi.org/10.1007/978-3-030-24355-5>.