

## SYLLABUS

**1. Course title:**

INFORMATICS

**2. Code:****3. Cycle of study:**

1

**4. ECTS credits:**

3

**5. Type of course:** Mandatory  Elective**6. Prerequisites:**

none

**7. Class restrictions:**

none

**8. Duration / semester:**

1

1

**9. Weekly contact hours:**

9.1. Lectures:

2

9.2. Seminars:

0

9.3. Laboratory/Practice classes:

1

**10. Faculty:**

Faculty of Pharmacy

**11. Department/study program:**

Pharmacy (integrated 1st and 2nd cycle)

**12. Lecturer:**

Zekerijah Šabanović, PhD, associate professor

**13. Lecturer's e-mail:**

zekerijah.sabanovic@untz.ba

**14. Web site:**

www.farmacy.untz.ba

**15. Course aims:**

Introduction of the basis of Informatics to the students, with the specific of Pharmacy Informatics, adoption of practical knowledge from information communication technology area (ICT), and computer processing of the pharmaceutical data.

**16. Learning outcomes:**

At the end of semester/course, successful students (which are continuously performed their responsibilities through whole semester) should be able to: understand importance of Informatics as an interdisciplinary contemporary science, understand role and importance of pharmacy informatics, use contemporary methods of pharmacy data collection, use computer systems, based on PC technology, processing of data in Windows OS (on-line, off-line processing), analyze data using MS Office software, use Internet in study and finding new knowledge and handling telecommunications systems in pharmacy.

**17. Course content:**

Introduction to informatics and pharmacy informatics, information theory, computer technology and its development (hardware, system and applicative software), medical data processing (pharmacy data sources), classification systems in medicine (ICD, ATC), DRG classification system, Data bases, and applicative software in pharmacy, health information systems (HIS), pharmacy information systems, IT in drug production and distribution, management and administration, IT and patient safety, computer networks in pharmacy, IT protection in health area, archiving of pharmacy data, Internet and e-pharmacies, (on-line pharmacies), Integration of pharmacy information systems in global health system.

**18. Learning methods:**

- theoretical multimedia lectures
- laboratory (computer) practical exercises on PC computers
- continuous advices of professor and assistants with the students

**19. Assessment methods:**

After a half of class was done (in the middle of semester), partial exam (in form of test) are organized. Test is consisted of opened type questions (recount, define, explain, calculate, etc. ). Scoring of the answers depends of number of questions, (tests usually consist between 7 and 15 questions). Maximum for this test is 35 points. After complete class was finished (at the end of semester), in official announced term, final exam is organized. Exam is also in form of test (10-20 opened type of questions) and maximum points for this test is 50. Tests of the students who didn't sign their tests will not be evaluated. Every behavior which disturbs the exams (like whispering among the students, making of noise, cheating, etc.) will result in taking away of the test from the students and test will not be evaluated. Students which disturb discipline during classes will be removed from that class and 5 points will be subtracted from total earned points. Students can have maximum 6 hours (20%) of the absence from theoretical classes. Absence from practical exercises will not be tolerated. For all lost lessons (and missed exam also) students must bring doctor's excuse (for an absence) within maximum 7 days after certain absence was done. Lost practical classes students must recompense separately in agreement with the assistants. Lost of the classes outside of these limits will not be tolerated, student will not get professor's sign in the index and he will not be permitted to take final exam. Students which didn't pass exams (min. 54 points) will be able to take corrective exam. If student pass exam and wishes higher grade, he must revoke points from previous exam personally with the professor. Prerequisite for this is that student must have maximum points of preliminary obligations (presence and activity during theoretical/practical lectures).

**20. Assessment components:**

Student obligation	Points	Minimum to pass
Presence/activity during lectures	5	3
Presence/activity during exercises	10	7
Partial exam (test)	35	18
Final exam (test)	50	26
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TOTAL	100	54
To pass the exam, student must have minimum: 54 points (grade 6-E), 64 points(grade 7-D), 74 points(grade 8-C), 84 points (grade 9-B) i 94 points (grade 10-A).		

**21. Required reading list:**

1. I. Mašić, Z. Riđanović, H.Pandža, Z.Mašić (2010). Medical Informatics, Second Edition, Avicena Sarajevo.
2. M.Pavlič, (1996) Razvoj informacijskih sustava - projektiranje i praktična iskustva, Znak Zagreb
3. Materials from lectures and practical exercises
4. WEB sources

**22. Web sources:****23. Applicable starting from the academic year:**

2012/2013

**24. Adopted in the Faculty/Academy session:**