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SYLLABUS

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| Name and code of the course | **BIO260 GENERAL MICROBIOLOGY LAB.** |
| Instructors | Prof. Dr. Sevgi ERTUĞRUL KARATAY |
| Level | Undergraduate |
| Credit | 1.0 ECTS: 2.0 |
| Course Type | Compulsory |
| Course Content | Biochemical tests (carbohydrate fermentation, TSI agar test, enzyme activities: catalase, amylase, gelatinase, protease, urease), Antibiotic susceptibility test (Antibiogram), (Disc diffusion, MIC test, E-test), Molecular biological methods in diagnosis, Bacteriophage count Motion test, IMVIC test, Nitrogen cycle, Hemolysis-Coagulase, Enzyme induction, Conjugation, AMES-prototroph-oxotroph mutants |
| Goals of the course | To improve the pracitice abilities of the students, gained on the first semester, by applying more wide microbiologic methods such as biochemical tests used in the determination of microbial physiolocial characters, antibiotic susceptibility tests, phage abd host interactions, molecular biological anlyses in toxonomic identification, coliform identification, some virulance factors, nitrogen cycle, enzyme induction, horizontal gene transfer, obtaining mutant strains. |
| Weekly course hours | 2 hours/week |
| Language | ENGLISH |
| Prerequisite | - |
| Recommended sources | 1) Brock Biology of Microorganisms, Madigan, Martinko and Parker, 2018. 15th Edition. Prentice Hall.  2) Shlegel, H.D. (1994) General Microbiology. Cambridge University Press.  3) Prescott, L. M., Harley, J. P., Klein, D. A. (1996) Microbiology Wm. C. Brown Publishers EnglandMicrobial Biotechnology, Energy and Environment, Rajesh arora, CAB International, 2012  Sustainable Biotechnology; Om V. Singh, Steven P. Harvey, 2010, Springer |
| Laboratory Practice | 2 hours/week |