**BBI1206 Microbiology**

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| 1.week  Morfology of microbes and groups of mikrobes.  Shape of bacteria. Organization of unicellulars.  2. week  Cultivation and inhibition of bacteria  3.week  Most important bacteria groups  4. week  Light utilization  5.week  Metabolism of procariota and respiration.  6. week  Utilization of microbes in industry.  7. week  Virusies  8. week  STERILISATION AND DISINFECTION  Procedures of sterilisation  Procedures of disinfection  Determination of the microbiological efficacy of disinfectants  INTRODUCTION TO THE USE OF PRACTICAL LABORATORY MICROSCOPES  Bright-field light microscopy  Fluorescence microscopy  9. week  BASIC ALGOLOGICAL METHODS  CELL- AND GERM-COUNTING METHODS  Determination of cell counts with microscope  PCR-based cell counts  Determination of germ counts based on cultivation  10. week  CFU-counting techniques  The membrane filter technique  The end point dilution technique (MPN method)  STRAIN CULTURE AND CULTIVATION-BASED TECHNIQUES  Demonstration of microbes in the environment  Preparation of microbiological culture media  Basic bacterial cultivation techniques  Spread plate and pour plate methods  11. week  Pheno- and genotypic characterisation of bacterial strains  Colony- and cell morphology, staining procedures  Study of bacterial enzymes  SAMPLING METHODS IN MICROBIOLOGY ..  Sampling from various environments  Collection of air samples  Determination of air microbs  Collection of soil samples  Determination of soil microbs  12. week  Sampling the surface of objects  Hygienic control of the hands of operators  Determination of surface microbs  Isolation and streak plate technique  Anaerobic cultivation techniques  Transfer, maintenance and storage of pure cultures  Investigation of cosmetic samples  Investigation of food samples  13. week  Investigation of FUNGI  14 week  Investigation of Virus  electronmicroscop |  |
| Requirement: Attending the practical course is obligatory.  Term grade:  1.Preparation of a laboratory report. Presentation and evaluation of the results of the experiments and tests carried out.  2.Writing tests.  The average of the grade of points 1. and 2. |  |