

Module Handbook

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| Modul Name | Spermatology |
| Modul Level | Bachelor |
| Abbreviation, if applicable: | BIS321 |
| Sub---heading, if applicable: | - |
| Courses included in the module, if applicable: | - |
| Semester | Even (4 th and 6 th) |
| Module Coordinator | Dr. Alfiah Hayati |
| Lectures | Dr. Alfiah Hayati |
| Language | Bahasa Indonesia |
| Classification within the curriculum: | Compulsory Course / Elective Studies |
| Teaching format/ class hours per week during semester | 150 minutes/ week |
| Workload per semester | 50 min lecture + 50 min structural assignment + 50 min self-assignment x 13 weeks; total 1950 min = 32.5 hours 32.5/25 = 1.3 ECTS |
| Credit point | 1 |
| Requirements | Vertebrate Comparative Anatomy |
| Learning goals/competencies | <p>General Competence (knowledge) Students are able to explain principles of spermatology; to show structure and function of spermatozoa cell organelles; to determine the quality of spermatozoa properly.</p> <p>Specific Competence</p> <ol style="list-style-type: none"> 1. Explaining the definition and experimental knowledge of spermatology 2. Explaining animal male reproduction system 3. Explaining the structure, function, size, and shape of mammal spermatozoa and spermatogenesis 4. Explaining structure, ultrastructure, molecular, and biochemistry of spermatozoa 5. Explaining the analytic technique of semen 6. Explaining the maturation and fertilization process of spermatozoa 7. Explaining reproduction hormone |
| Content | Definition concepts and insights of research on spermatozoa; biochemical (such as free radicals, antioxidants, proteins, DNA) and ultrastructure of spermatozoa; morphology, viability, and motility of spermatozoa; spermatozoa transportation; process of maturation, capacitation, polyspermy, and acrosome reaction; puberty and process of spermatogenesis, blood testis barrier; role of male sex hormone; epithelial cycle of seminiferous tubules and spermatogenic, and fertilization spermatozoa. |
| Soft skill Attribute | discipline and argumentation |
| Study/ exam achievements | Students are considered to be competent and pass if at least get 40% of maximum. Final score (NA) is calculated as follow: 35% mid exam + 35% final exam + 30% assignment (Soft skill and presentation of International journal) |

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| | <p>Final index is defined as follow:</p> <p>A : 75 - 100</p> <p>AB : 70 - 74.99</p> <p>B : 65 - 69.99</p> <p>BC : 60 - 64.99</p> <p>C : 55 - 59.99</p> <p>D : 40 - 54.99</p> <p>E : 0 - 39.99</p> |
| Form of media | LCD and computer |
| Learning Method | Class and discussion |
| Literature | <p>a. Hayati, A. 2011, <i>Spermatologi</i>, Airlangga University Press, Surabaya</p> <p>b. Bearden, H., JW. Fuquay and ST. Willard, <i>Applied Animal Reproduction</i>, Upper Saddle River, New Jersey.</p> |
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