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| Title: | Molecular population genetics |
| Lecture hours: | Lecture – 10 hours Laboratory 5 hours |
| Study period: (summer/winter) | Winter or summer |
| Number of credits: | 4 |
| Assessment methods: | Written exam |
| Language of instruction: | English |
| Prerequisites: | General knowledge on principles of genetics and statistics |
| Course content: | Genetic and phenotypic variation Hardy-Weinberg Equilibrium Genetic linkage and population genetics Random genetic drift Mating system, inbreeding, gene flow Molecular markers and population genetics Genetic differentiation Population genetics of human populations. Principles of population genomics |
| Learning outcomes: | Knowledge on principles and mechanisms determining the levels and distribution of genetic variation. Ability to test basic hypotheses on population genetic equilibria (Hardy-Weinberg, linkage). Understanding of meaning and practical application of the term 'effective population size'. Knowledge on genetic markers applicable to population genetic studies. |
| Name of lecturer: | Jaroslav Burczyk, prof Igor Chybicki, Ph. D. D. Sc. |
| Contact (email address): | burczyk@ukw.edu.pl |
| Literature: | Hartl, D. L., & Clark, A. G. (2007). Principles of Population Genetics (Sinauer, Sunderland, MA). |