CYTOGENETIC

Module code	BIO 60403
Module level	1st year of Master Program in Biology
Abbreviation, if applicable	GENSEL
Courses related	-
Semester	Even
Course coordinator(s)	Dr. Budi Setiadi Daryono, M.Agr.Sc.
Lecture(s)	• Dr. Budi Setiadi Daryono, M.Agr.Sc. • Dr. Niken Satuti Nur Handayani, M.Sc.
Language	Bahasa Indonesia and English
Classification within the Curriculum	Compulsory Course for Specific Field of Interest
Teaching format/class hours per week during the semester	This course is organized into one class and planned to have 10 topic teaching with 2 time of examination. This course also has laboratory works credits.
Workload	Estimated working hour: 10,5 hours/week.
Credit	2-1 credits
Requirements	-
Course Learning Outcome	• Able to explain the principles of cytogenetic, explain mechanism of chromosome activity during mitosis, its role in human health, and how the mutation occured, and also corelated to heredity. • Able to design experiments and utilize methods in cytogenetic. • Able to make reports on animal experiments related to cytogenetic research
Syllabus	This course covers the study of the cytogenetic. Students will learn the basic knowledge in chromosomes, cell cycle, mutation, and technique in cytogenetics.
Study/exam achievements	• Midterm: 30% • Final examination: 35% • Projects: 15% • Quiz: 15% • Tasks 10 % • Activity 10%
Forms of media	White board, notebook, LCD
Reference	a. Arisyta, G.R., B.S. Daryono, Sn.S. Handayani dan T. Arisuryanti. 2015. Karakterisasi Kromosom Tumbuhan & Hewan. Gadjah Mada University Press. Yogykarta.

b. Campbell, N.A., L.G. Mitchell, and J.B. Reece. 2006. **Biology. Concept and Connection.** The Benyamin Cummings Publ.Co.Inc., California (USA)
c. Griffith, A.J.F., J.F.Miller, D.T. Suzuki, R.C. Lewontin, and W.M. Gelbart. 1999**. An Introduction to Genetic Analysis**. W.H. Freeman & Co., New York (USA)
d. Klug, W.S. and R. Cummings. 2000. **Concept of Genetics**. 6th.ed. Prentice Hall Inc., New Jersey (USA)
e. Passarge, E. 2001. **Color Atlas of Genetics**. 2nd.ed. Thieme Stuttgart, New York (USA)
f. Popescu, P. & B. Dutrillaux. 2000. **Techniques in Animal Cytogenetics.** Springer-Verlag. Berlin
g. Suryo. 1995. **Sitogenetika**. Gadjah Mada University Press, Yogyakarta.
h. Summer, A.T. 2003. **Chromosomes. Organization and Function**. Blackwell Publ. (UK)