

CENTRAL UNIVERSITY OF PUNJAB, BATHINDA



M.Sc. Human Genetics

Session - 2020-22

**Department of Human Genetics and
Molecular Medicine**

Course Title: **MOOC course**

Total Hours: **60**

Learning Outcomes:

On successful completion of the course the student will be able to:

Acquire knowledge on specific topics and will be able to apply it to real data or experiments.

MOOC course of 4 credits may be chosen by a student from the list provided by Swayam to the Head of the concerned Department. The student is required to submit the pass certificate of MOOC course before the declaration of result. The link for selection of MOOC course is:

<http://ugcmoocs.inflibnet.ac.in/course.php>

Course Code: **LHG.503**

L	T	P	Credits
0	0	2	1

Course Title: **Clinical Genetics**

Total Hours: **15**

Learning Outcomes:

On successful completion of the course the student will be able to:

- Take a family history and construct and interpret a pedigree Have an understanding about the nutritional requirements and the role of gut microbiota in human nutrition.
- Communicate the concept risk in a manner that can be understood by the patients Get aware of the genetic markers involved in the regulation of metabolomics and the role of these markers in health and disease.
- aware of the type of clinical features suggesting common chromosomal disorders and role of teratogens in human congenital disorders.

UNIT I

Hours: **3**

Genetic assessment and drawing pedigree

UNIT II

Hours: **4**

Genetic counseling

UNIT III

Hours: **4**

Common chromosomal disorders-case studies

UNIT IV

Hours: **4**

Teratogens and dysmorphology

Transactional Modes: Lecture; Demonstration; Demonstration; Problem solving; Self-learning, Pedigree drawing.

Suggested Readings:

1. Brooker, R.J (2017). Genetics: analysis and principles. 6th Ed. New York, NY: McGraw-Hill Education.
2. Hartwell, L. et al (2017). Genetics: from genes to genomes. 6th Ed. New Your, NY: McGraw-Hill Education.
3. Helen, M.K. 2002. ABC of clinical Genetics. 3rd Ed. BMJ Publishing Group. London.

Course Code: **LHG.599**

L	T	P	Credits
0	0	0	6

Course Title: **Project-I**

Total Hours: **180**

Learning Outcomes:

On successful completion of the course the student will be able to:

- Apply genetic and genomics technique for research
- Construct study design
- Interpret result of a genetic experiment
- Present oral and written scientific communication skills

The objective of this course would be to ensure that the student learns the nuances of the scientific aptitude, presentation and writing. Herein the student shall have to write his/her synopsis including an extensive review of literature with simultaneous identification of scientifically sound (and achievable) objectives backed by a comprehensive and detailed methodology.

Synopsis will be evaluated as per the University policy.

Evaluation criteria for Project:

The 2-point assessment is **satisfactory** or **not satisfactory** based on the following parameters: