

**M.V.R. DEGREE COLLEGE**  
**(UG And PG Courses)**  
 (Affiliated to Andhra University)  
 An Institution of Priyadarshini Educational Academy  
 NAAC ACCREDITED COLLEGE

Dr.V.Rama Rao, M.A.,Ph.D.,  
 Secretary & Correspondent

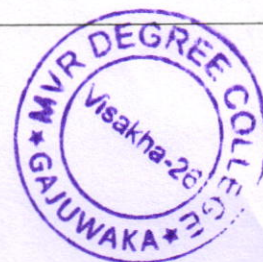
Dr.A.Balakrishna,M.Sc.,Ph.D.,  
 Principal

**Department of Human Genetics**  
**Bachelor of science**

**APSCHE, Revised Syllabus of Human Genetics under CBCS Framework**  
**w.e.f 2020-2021(revised in April 2020)**

**Course outcomes (Cos) for Human Genetics**

Course Code	Title of the paper	Outcomes
<b>Course 1 (TH)</b>	Genetics and Human heredity	<p><b>CO1:</b> This course introduces the students to understand basics principals of genetics. Hence, the students get the knowledge about the fundamentals of heredity.</p> <p><b>CO2:</b> The course introduce the students to understand about the pattern of inheritance resp. to sex</p> <p><b>CO3:</b> The main objective of this course is to understand about mitochondrial inheritance and maternal inheritance in man .</p> <p><b>CO4:</b> To understand the concept of mapping genes basing on linkage and crossing over.</p> <p><b>CO5:</b> To understand structural and functional features of chromosome and also can understand the practical knowledge about karyotyping and related anomaliesbasing on structural and numerical aspect.</p>
<b>Course 1 (Pr)</b>	Genetics and Human heredity	<p>By practical experience students could understand the principles and fundamentals by calculating seed ratios on plants and studying mutants and model organisms.By using squash technique students can observe and know the stages of cell divisionThey can know ABO and RH and also they can study the reasons of diseases by karyotyping.</p>





# M.V.R. DEGREE COLLEGE

## (UG And PG Courses)

(Affiliated to Andhra University)

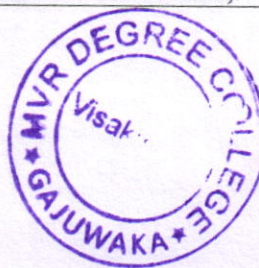
An Institution of Priyadarshini Educational Academy

NAAC ACCREDITED COLLEGE

Dr.V.Rama Rao, M.A.,Ph.D.,  
Secretary & Correspondent

Dr.A.Balakrishna,M.Sc.,Ph.D.,  
Principal

Course 2 (TH)	Human genetics and Cytogenetics	<p><b>CO1:</b> Students can know the history of human genetics.They can understand about pedigree symbols and hence, they can design pedigree charts</p> <p><b>CO2:</b> the main objective of this topic is to make students understand about quantitative genetics and its traits</p> <p><b>CO3:</b> The main objective of this course is to make the students understand about mapping techniques on complex traits.</p> <p><b>CO4:</b>Thiscourse introduces the concept of cell division,students should understand how chromosomes divide,recombinants are formed during crossing over and about gametes formation.</p>
Course 2 (Pr)	Human genetics and Cytogenetics	<p><b>CO1:</b> Students imparts to know that fundamental concepts like pedigree analysis and genetic counseling by studying genetic traits and diseases and also they can apply in family history and observe the severity of disease</p> <p><b>CO2:</b>Students can apply quantitative genetics like polymorphism by studying certain traits like dermatoglyphics ,ABO blood grouping.</p>
Course 3 (TH)	<b>Human Molecular genetics</b>	<p><b>CO1:</b> students get the knowledge about the structure of DNA,RNA and proteins</p> <p><b>CO2:</b> The main objective of this course is to understand protein synthesis mechanism</p> <p><b>CO3:</b> This course introduces the students to know about the concept of recombination, replication mechanism,.</p>



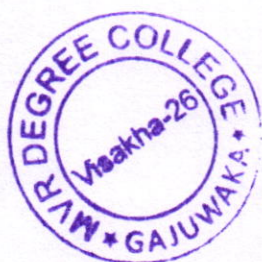


**M.V.R. DEGREE COLLEGE**  
**(UG And PG Courses)**  
 (Affiliated to Andhra University)  
 An Institution of Priyadarshini Educational Academy  
 NAAC ACCREDITED COLLEGE

**Dr.V.Rama Rao, M.A.,Ph.D.,**  
**Secretary & Correspondent**

**Dr.A.Balakrishna,M.Sc.,Ph.D.,**  
**Principal**

<b>Course 3 (Pr)</b>	Human Molecular genetics	<b>CO1:</b> Students get the practical knowledge on hands on experience by doing biomolecules techniques and biophysical techniques.
<b>Course 4 (TH)</b>	r-dna technology and stem cell technology	<b>CO1:</b> The main objective of this course is to make the student understand about cloning. <b>CO2:</b> Students get the knowledge about the screening methods of diseased genes <b>CO3 :</b> Students get the awareness about the applications of r-DNA technology <b>CO4 :</b> Restriction enzyme studies
<b>Course 4 (Pr)</b>	r-dna technology and stem cell technology	<b>CO1:</b> By practical experience students could understand the technique of isolation of plasmid DNA,digestion and construction of restriction maps and PCR technique.



*Attested*  
*[Signature]*

PRINCIPAL

**M.V.R. DEGREE COLLEGE**  
 Shramika Nagar, Gajuwaka,  
 VISAKHAPATNAM - 530 026