

**Faculty of Agriculture Science & Technology  
Department of Genetics & Plant Breeding**

**Study and Evaluation Scheme**

**Of**

**M.Sc. (Ag.) in**

**Genetics and Plant Breeding**

**(Applicable w.e.f Academic Session 2022-23)**



**AKS UNIVERSITY, SATNA (M.P.)**

**\*\* The University Authority reserve all the right to make  
any addition / deletion or change / modification to this  
syllabus as deemed necessary**

## **M.Sc. (Ag.) in Genetics and Plant Breeding**

### **(Two Year Master Degree Programme )**

#### **Requirement of Credit Hours for Award of the Degree**

<b>S.No</b>	<b>Nature of Courses</b>	<b>Credit Hours</b>
<b>1</b>	<b>Major courses</b>	<b>21</b>
<b>2</b>	<b>Minor Courses</b>	<b>11</b>
<b>3</b>	<b>Supporting Courses</b>	<b>7</b>
<b>4</b>	<b>Common Courses</b>	<b>5</b>
<b>5</b>	<b>Master Seminar</b>	<b>1</b>
	<b>Master Research</b>	<b>30</b>
	<b>Total</b>	<b>75</b>

**Major Subject:** The subject (Department / Discipline) in which a student takes admission.

**Minor Subject:** The Subject closely related to a students major subject.

**Supporting Subject:** The Subject not related to the major subject. It could be any subject considered relevant for students research work or necessary for building his overall competence.

**Common Courses:** The following courses (one credit each) will be offered to all students undergoing Master's degree programme:

1. Library and Information Services
2. Technical Writing and Communications Skills
3. Intellectual Property and its management in Agriculture
4. Basic Concepts in Laboratory Techniques
5. Agricultural Research, Research Ethics and Rural Development Programmes



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## M.Sc. (Ag.) in Genetics and Plant Breeding

### Semester Wise distribution of courses

#### First Semester:

<b>A. Major Courses</b>			
<b>S.No</b>		<b>Title of Courses</b>	<b>Credit hours</b>
1	GPB 501*	PRINCIPLES OF GENETICS	3(2+1)
2	GPB 502*	PRINCIPLES OF PLANT BREEDING	3(2+1)
3	GPB503*	FUNDAMENTALS OF QUANTITATIVE GENETICS	3(2+1)
		Total	<b>9 (6+3)</b>
<b>B. Minor Courses</b>			
1	GPB 510	SEED PRODUCTION AND CERTIFICATION	2(1+1)
2	GPB 511	CROP BREEDING-I (KHARIF CROPS)	3(2+1)
		Total	<b>5 (3+2)</b>
<b>C. Supporting Courses</b>			
1	STAT 502	STATISTICAL METHODS FOR APPLIED SCIENCES	4 (3+1)
		Total	4 (3+1)
<b>Total -</b>			<b>18</b>
<b>D. Common Courses</b>			
1	PGS 501	LIBRARY AND INFORMATION SERVICES	0+1
2	PGS 502	TECHNICAL WRITING AND COMMUNICATIONS SKILLS	0+1
		Total	<b>2(1+1)</b>



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### Second Semester:

<b>A. Major Courses</b>			
<b>S.No</b>		<b>Title of Courses</b>	<b>Credit hours</b>
<b>1</b>	GPB 505	PRINCIPLES OF CYTOGENETICS	3(2+1)
<b>2</b>	GPB 506	MOLECULAR BREEDING AND BIOINFORMATICS	3(2+1)
		<b>Total</b>	<b>6(4+2)</b>
<b>B. Minor Courses</b>			
<b>1</b>	GBP 508	MUTAGENESIS AND MUTATION BREEDING	3(2+1)
<b>2</b>	GPB 512	CROP BREEDING-II (RABI CROPS)	3 (2+1)
		Total	<b>6 (4+2)</b>
<b>C. Supporting Courses</b>			
<b>1</b>	STAT 511	EXPERIMENTAL DESIGN	3 (2+1)
		Total	<b>3(2+1)</b>
<b>Total</b>			<b>15</b>
<b>D. Common Courses</b>			
<b>1</b>	PGS 503	INTELLECTUAL PROPERTY AND ITS MANAGEMENT IN AGRICULTURE	1+0
<b>2</b>	PGS 504	BASIC CONCEPTS IN LABORATORY TECHNIQUES	0+1



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### Third Semester:

<b>A. Major Courses</b>			
<b>S.No</b>		<b>Title of Courses</b>	<b>Credit hours</b>
<b>1</b>	GPB 507	BREEDING FOR QUALITY AND SPECIAL TRAITS	3 (2+1)
<b>2</b>	GPB 516	BREEDING FOR STRESS RESISTANCE AND CLIMATE CHANGE	3 (2+1)
<b>3</b>	GPB 591	MASTER SEMINAR	1(0+1)
<b>4</b>	GPB 599	MASTER RESEARCH	10(0+10)
		<b>Total</b>	<b>17</b>
<b>Total</b>			<b>17</b>
<b>D. Non Credit Courses</b>			
<b>1</b>	PGS 505	AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES	1+0

### Fourth Semester:

<b>A. Major Courses</b>			
<b>S.No</b>		<b>Title of Courses</b>	<b>Credit hours</b>
<b>1</b>	<b>GPB 599</b>	<b>MASTER RESEARCH</b>	<b>20(0+20)</b>
		<b>Total</b>	<b>20</b>