

**Programme Outcomes (POs) and Course Outcomes (COs) of**

**Science**

**2018-19 to 2021-22**

**Programme Outcomes (POs) and Course Outcomes (COs) of science  
2018-19**

**Matoshree Vimalabai Deshmukh Mahavidyalaya, Amravati**

**Programme: Undergraduate B.Sc. (Bachelor of Science)**

**Academic Session 2018-2019**

**Attainment of Programme Outcome and Course Outcome**

**Programme: B.Sc. (Science)**

<b>Year</b>	<b>2018-2019</b>
<b>No. of Students Enrolled</b>	<b>302</b>

**Program Outcomes (POs) of UG Programmes - B.Sc. (Science)**

**Students of all undergraduate degree Programmes at the time of graduation will be able to-**

After completion of B.Sc. program, the students will be able:

1. To acquire general grasp of science and technology.
2. To acquire knowledge in all basic sciences.
3. To use modern tools of ICT to learn and transfer knowledge.
4. To develop analytical skills to tackle real life problems.
5. To familiarize with the fundamentals of science education.
6. To develop a spirit of scientific temper and inquiry.

**Attainment of Programme Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2018-2019</b>	<b>Semester-VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>56</b>
<b>No. of Students Passed in Examination</b>	<b>43</b>
<b>No. of Students attained Level "O"</b>	<b>10</b>
<b>No. of Students attained Level "A"</b>	<b>04</b>
<b>No. of Students attained Level "B"</b>	<b>19</b>
<b>No. of Students attained Level "C"</b>	<b>10</b>
<b>No. of Students attained Level "D"</b>	<b>13</b>

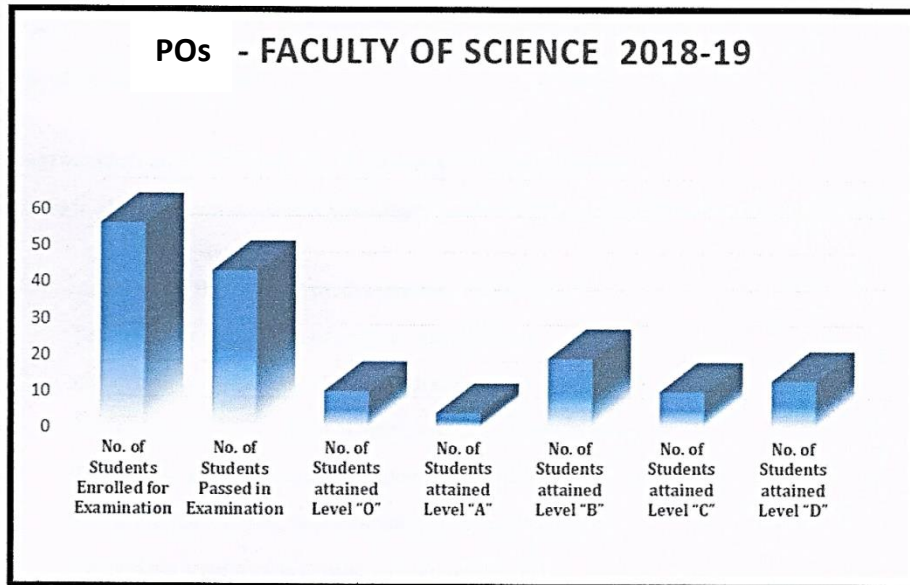
**Level "O": Students secured 75 % & above marks**

**Level "A": Students secured 60-74% marks**

**Level "B": Students secured 46 to 59 % Marks**

**Level "C": Students secured 40 to 45 % Marks**

**Level "D": Students secured less than 40% Marks**



**Attainment of Programme Outcome 2018-19**



*[Signature]*  
**DR. S. D. THAKARE**  
Coordinator, I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

*[Signature]*  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh  
Mahavidyalaya, Amravati.

**Attainment of Course Outcome:**

**Course: Botany**

**Course Code: -**

CO (Course Outcomes)  
B.Sc. I, B.Sc. II., B.Sc. III (Botany)  
COs of B.Sc. "Botany"

After the completion of the course the students will be able:

CO 1: To understand diversity and applications of Microbes and Cryptogams,

CO 2: To know about taxonomical and economical study of gymnosperms and utilization of spices, timber and Bamboo.

CO 3: To understand about conservation of flora in forest ecosystem

CO 4: To know about classification of plants based on anatomy and embryology.

CO 5: To understand the role of cell biology, role of genetics and biochemistry of plants.

CO 6: To know about the physiological characters of wild and cultivated plants.

CO 7: To understand food chain and food web in ecosystem.

CO 8: To understand DNA technology, the concepts of gene, cloning vectors, gene transfer techniques, tissue culture techniques, fermentation technology, health care edible vaccines etc.

CO 9: To understand basics of prokaryotic system, role of microbes in agriculture, medicine and industry.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2018-2019</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>35</b>
<b>No. of Students Passed in Examination</b>	<b>27</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>02</b>
<b>No. of Students attained Level "B"</b>	<b>02</b>
<b>No. of Students attained Level "C"</b>	<b>23</b>
<b>No. of Students attained Level "D"</b>	<b>08</b>

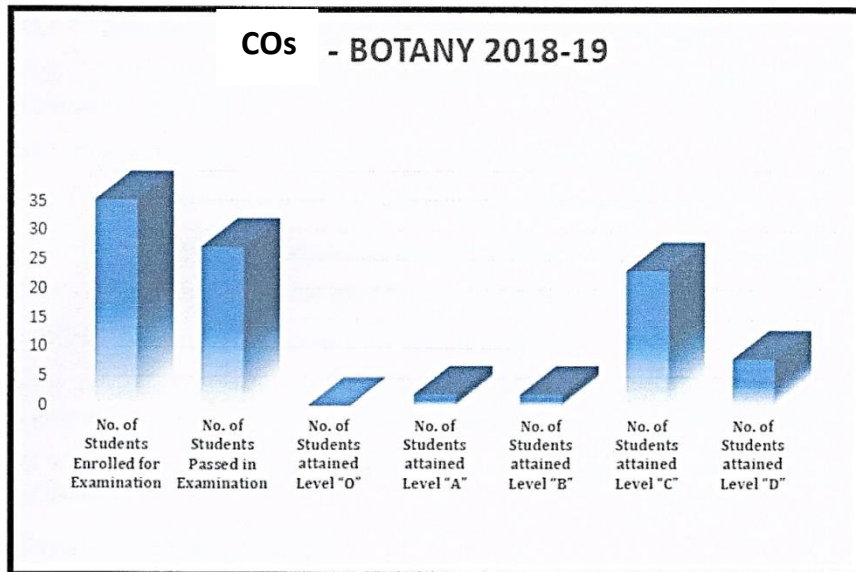
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2018-2019**

  
**Head**  
Department of Botany



  
**D. S. THAKARE**  
Coordinator, Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Zoology**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Zoology)**

**COs of B.Sc. "Zoology"**

**After the completion of the course of the students will be able:**

CO 1: To understand cell and its various cell organelles and its functions.

CO 2: To obtain knowledge about diverse branches of biology like genetics, evolution, ecology, physiology and biotechnology.

CO 3: To acquire basic skills in the observation and study of nature, biological teaching, experimental skills and scientific investigation.

CO 4: To understand the unit of life, rich nature of bio diversity of organism and their ecological and evolutionary significance.

CO 5: To make career in such diverse fields as Apiculture, Sericulture, Fisheries and Lac culture.

CO 6: To work in zoological survey of India, Archeology, wild life management, photography.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2018-2019</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>35</b>
<b>No. of Students Passed in Examination</b>	<b>28</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>02</b>
<b>No. of Students attained Level "B"</b>	<b>05</b>
<b>No. of Students attained Level "C"</b>	<b>21</b>
<b>No. of Students attained Level "D"</b>	<b>07</b>

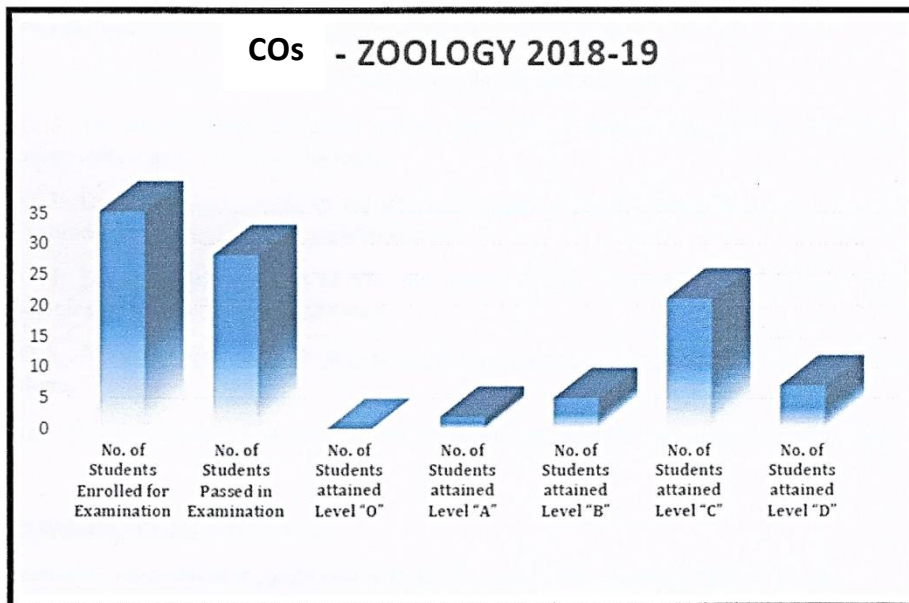
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2018-2019**

  
Head

Department of Zoology





DR. S. D. THAKARE  
Coordinator, I.Q.A.C.  
Coordinator  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati



Principal  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Physics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Physics)**

**COs of B.Sc. "Physics"**

**After the completion of the course the students will be able:**

CO 1: To understand the concepts of gravitation and planetary motions.

CO 2: To know about kinetic theory of gases, the basic laws of thermodynamics, and the concepts of alternating current with various with various combinations

CO 3: To know about mathematical background and laws of electrostatics, solid state electronic devices and special theory of relativity.

CO 4: To understand the various branches of Physics as optics, acoustics, and various renewable sources of energy.

CO 5: To understand the concepts of statistical mechanics and solid-state physics.

CO 6: To know about quantum mechanics and nuclear physics.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2018-2019</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>21</b>
<b>No. of Students Passed in Examination</b>	<b>15</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>01</b>
<b>No. of Students attained Level "B"</b>	<b>03</b>
<b>No. of Students attained Level "C"</b>	<b>11</b>
<b>No. of Students attained Level "D"</b>	<b>06</b>



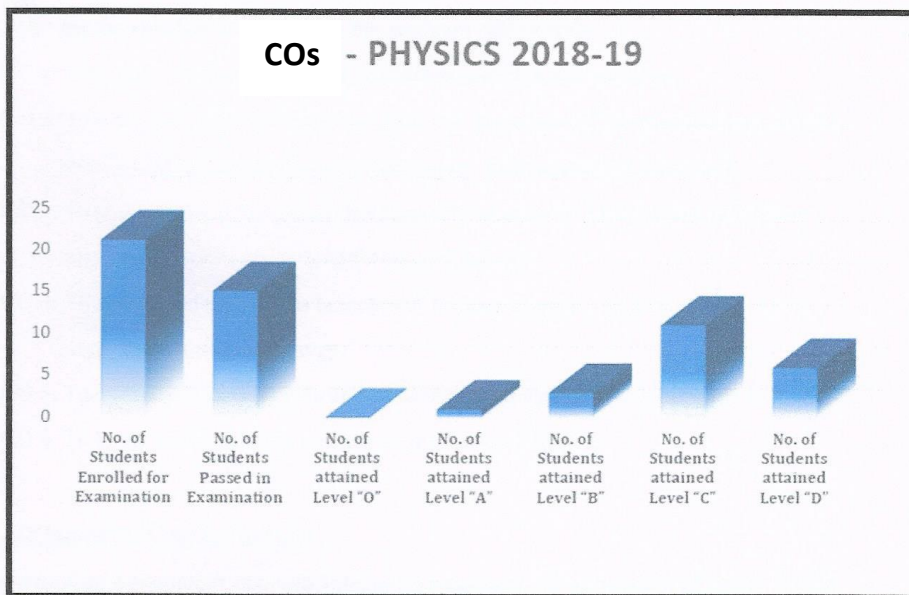
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks


Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks


Level "D": Students secured less than 40% Marks




**Attainment of Course Outcome 2018-2019**

  
**Head**  
Department of Physics



  
**DR. S. IQACAKARE**  
Coordinator IQAC  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
**Principal**  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Mathematics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Mathematics)**

**COs of B.Sc. "Mathematics"**

**After the completion of the course the students will be able:**

CO 1: To understand the common body of knowledge in mathematics and apply analytical and theoretical skills to model and solve the mathematical problems.

CO 2: To understand various concepts of Trigonometry

CO 3: To understand Differential Equations: Ordinary and Partial.

CO 4: To understand Vector Analysis and Solid Geometry.

CO 5: To understand advanced calculus and Elementary Number theory.

CO 6: To grasp various mathematical methods.

CO 7: To understand Linear Algebra, Graph Theory, and Special Theory of Relativity.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2018-2019</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>21</b>
<b>No. of Students Passed in Examination</b>	<b>21</b>
<b>No. of Students attained Level "O"</b>	<b>21</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

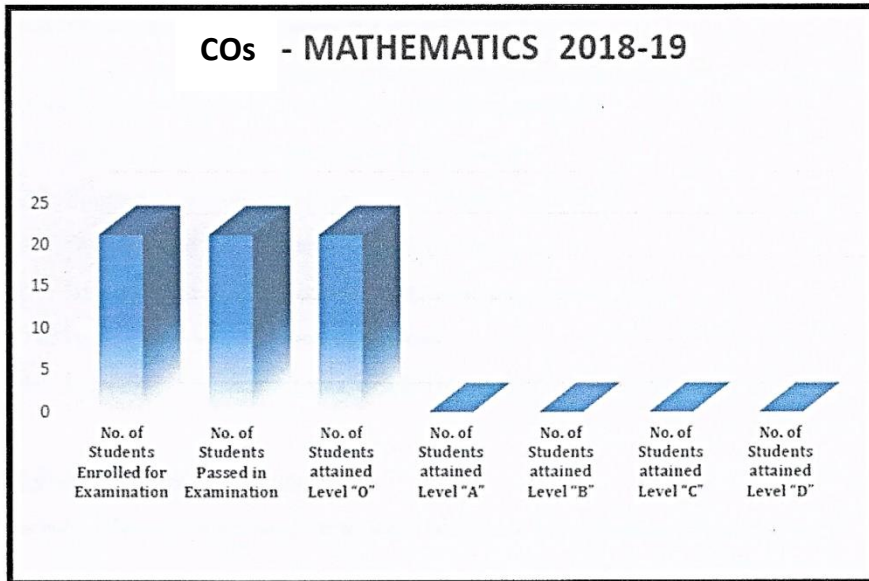
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2018-2019**

*Aharpanti*  
Head  
Department of Mathematics



*IQACHAKARE*  
DR. IQACHAKARE  
C Coordinator  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

*[Signature]*  
Principal  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Chemistry**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Chemistry**

**COs of B.Sc. "Chemistry"**

**After the completion of the course the students will be able:**

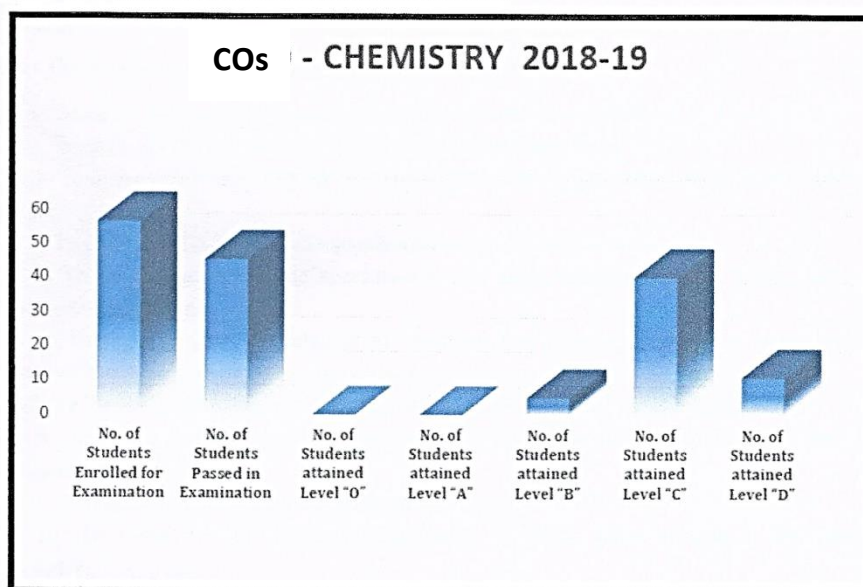
- CO 1: To understand applications of aromatic hydrocarbons and aliphatic hydrocarbons.  
CO 2: To understand kinetic theory of gases and crystal field theory.  
CO 3: To know about the concepts of hybridization and hybridization of different molecules and their geometry.  
CO 4: To understand concepts of stereochemistry and electrochemistry.  
CO 5: To become aware of the spectroscopy and mass spectrometry of Nuclear Magnetic Resonance phenomena.  
CO 6: To identify inter conversions of chemical and electrical energy by experience of electrochemistry of radio isotopes in industry, agriculture, medicine and biosciences.  
CO 7: To know complex thermodynamic and kinetic stability and complex geometry.  
CO 8: To know fundamentals of organometallic chemistry, inorganic polymers and bio-inorganic chemistry.  
CO 9: To understand the chemistry of transition elements.  
CO 10: To understand the colligative properties of dilute water as well as the rules of symmetry.  
CO 11: To know the spectroscopic methods to consider the molecule's atomic structure.  
CO 12: To classify colors depending on the structure and mode of operation, peroration and use of colorants, medications and pesticides.  
CO 13: To understand the photochemical and thermal reactions by radiation - matter interaction.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2018-2019</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>56</b>
<b>No. of Students Passed in Examination</b>	<b>45</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>05</b>
<b>No. of Students attained Level "C"</b>	<b>40</b>
<b>No. of Students attained Level "D"</b>	<b>11</b>

- Level "O": Students secured 75 % & above marks
- Level "A": Students secured 60-74% marks
- Level "B": Students secured 46 to 59 % Marks
- Level "C": Students secured 40 to 45 % Marks
- Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2018-2019**

*[Signature]*  
**Head**  
 Department of Chemistry



*[Signature]*  
**DR. SACHIN CHAKARE**  
 Coordinator, I.Q.A.C.  
 Matoshree Vimalabai Deshmukh Mahavidyalaya  
 Amravati

*[Signature]*  
**PRINCIPAL**  
 Matoshree Vimalabai Deshmukh Mahavidyalaya,  
 Amravati

**Programme Outcomes (POs) and Course Outcomes (COs) of science  
2019-20**

**Matoshree Vimalabai Deshmukh Mahavidyalaya, Amravati**

**Programme: Undergraduate B.Sc. (Bachelor of Science)**

**Academic Session 2019-2020**

**Attainment of Programme Outcome and Course Outcome**

**Programme: B.Sc. (Science)**

<b>Year</b>	<b>2019-2020</b>
<b>No. of Students Enrolled</b>	<b>293</b>

**Program Outcomes (POs) of UG Programmes - B.Sc. (Science)**

**Students of all undergraduate degree Programmes at the time of graduation will be able to-**

After completion of B.Sc. program, the students will be able:

1. To acquire general grasp of science and technology.
2. To acquire knowledge in all basic sciences.
3. To use modern tools of ICT to learn and transfer knowledge.
4. To develop analytical skills to tackle real life problems.
5. To familiarize with the fundamentals of science education.
6. To develop a spirit of scientific temper and inquiry.

**Attainment of Programme Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2019-2020</b>	<b>Semester-VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>80</b>
<b>No. of Students Passed in Examination</b>	<b>80</b>
<b>No. of Students attained Level "O"</b>	<b>80</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

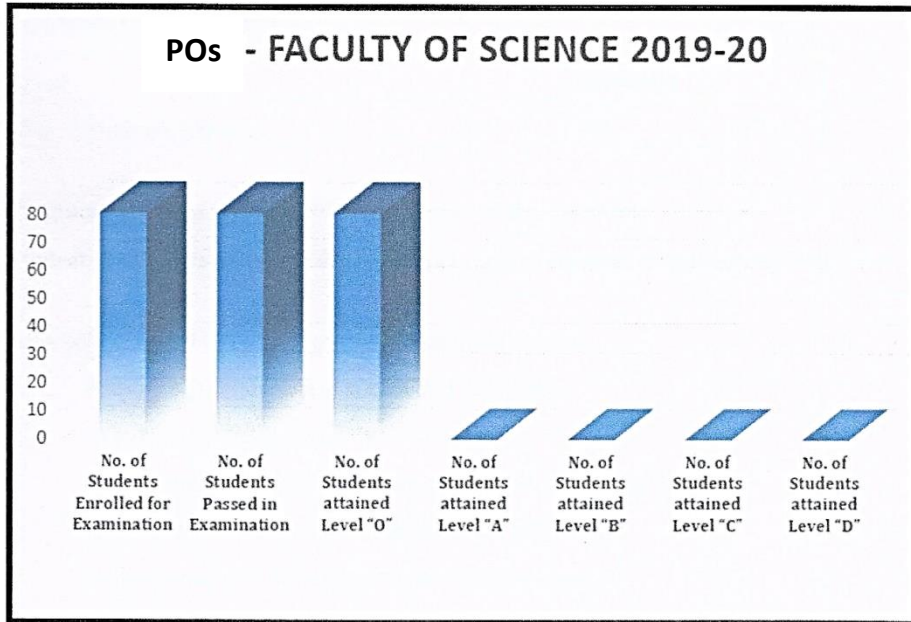
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks


Level "D": Students secured less than 40% Marks



**Attainment of Programme Outcome 2019-2020**



  
**DR. S. D. THAKARE**  
Coordinator, I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh  
Mahavidyalaya, Amravati.

**Attainment of Course Outcome:**

**Course: Botany**

**Course Code: -**

CO (Course Outcomes)  
B.Sc. I, B.Sc. II, B.Sc. III (Botany)  
COs of B.Sc. "Botany"

After the completion of the course the students will be able:

CO 1: To understand diversity and applications of Microbes and Cryptogams,

CO 2: To know about taxonomical and economical study of gymnosperms and utilization of spices, timber and Bamboo.

CO 3: To understand about conservation of flora in forest ecosystem

CO 4: To know about classification of plants based on anatomy and embryology.

CO 5: To understand the role of cell biology, role of genetics and biochemistry of plants.

CO 6: To know about the physiological characters of wild and cultivated plants.

CO 7: To understand food chain and food web in ecosystem.

CO 8: To understand DNA technology, the concepts of gene, cloning vectors, gene transfer techniques, tissue culture techniques, fermentation technology, health care edible vaccines etc.

CO 9: To understand basics of prokaryotic system, role of microbes in agriculture, medicine and industry.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2019-2020</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>65</b>
<b>No. of Students Passed in Examination</b>	<b>65</b>
<b>No. of Students attained Level "O"</b>	<b>65</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>



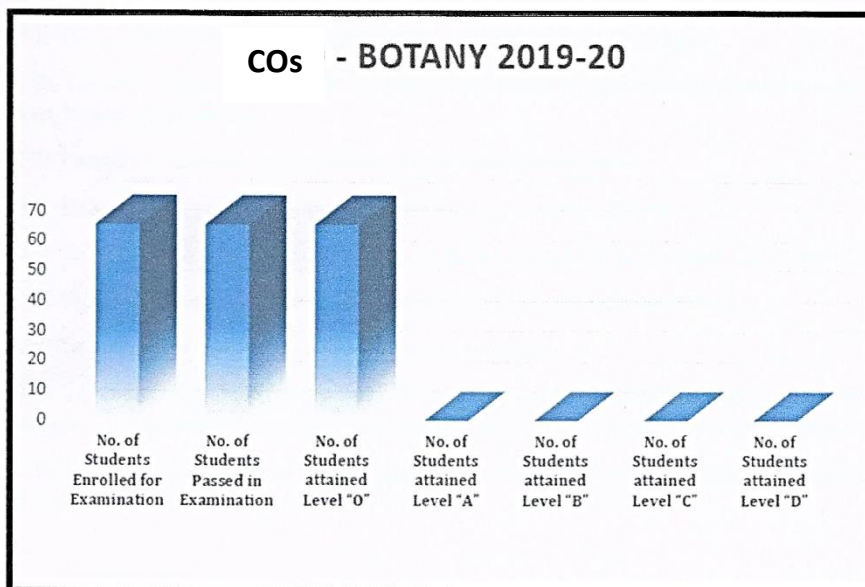
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks




**Attainment of Course Outcome 2019-2020**

  
**Head**  
**Department of Botany**



  
**DR. D. C. THAKARE**  
**Coordinator, I.Q.A.C.**  
**Coordinator**  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh  
Mahavidyalaya, Amravati  
**Matoshree Vimalabai Deshmukh Mahavidyalaya,**  
**Amravati**

**Attainment of Course Outcome:**

**Course: Zoology**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc. II, B.Sc. III (Zoology)**

**COs of B.Sc. "Zoology"**

**After the completion of the course of the students will be able:**

CO 1: To understand cell and its various cell organelles and its functions.

CO 2: To obtain knowledge about diverse branches of biology like genetics, evolution, ecology, physiology and biotechnology.

CO 3: To acquire basic skills in the observation and study of nature, biological teaching, experimental skills and scientific investigation.

CO 4: To understand the unit of life, rich nature of bio diversity of organism and their ecological and evolutionary significance.

CO 5: To make career in such diverse fields as Apiculture, Sericulture, Fisheries and Lac culture.

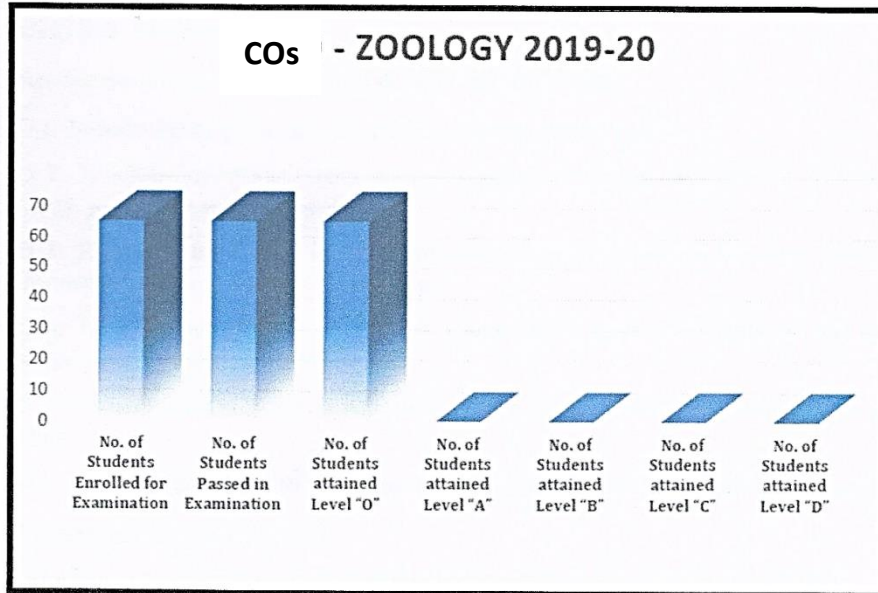
CO 6: To work in zoological survey of India, Archeology, wild life management, photography.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2019-2020</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>65</b>
<b>No. of Students Passed in Examination</b>	<b>65</b>
<b>No. of Students attained Level "O"</b>	<b>65</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

- Level "O": Students secured 75 % & above marks
- Level "A": Students secured 60-74% marks
- Level "B": Students secured 46 to 59 % Marks
- Level "C": Students secured 40 to 45 % Marks
- Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2019-2020**



*[Signature]*  
Head

Department of Zoology

*[Signature]*  
DR. S. O. THAKARE  
Coordinator I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

*[Signature]*  
PRINCIPAL  
Principal  
Matoshree Vimalabai Deshmukh  
Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Physics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Physics)**

**COs of B.Sc. "Physics"**

**After the completion of the course the students will be able:**

CO 1: To understand the concepts of gravitation and planetary motions.

CO 2: To know about kinetic theory of gases, the basic laws of thermodynamics, and the concepts of alternating current with various with various combinations

CO 3: To know about mathematical background and laws of electrostatics, solid state electronic devices and special theory of relativity.

CO 4: To understand the various branches of Physics as optics, acoustics, and various renewable sources of energy.

CO 5: To understand the concepts of statistical mechanics and solid-state physics.

CO 6: To know about quantum mechanics and nuclear physics.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2019-2020</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>15</b>
<b>No. of Students Passed in Examination</b>	<b>15</b>
<b>No. of Students attained Level "O"</b>	<b>15</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

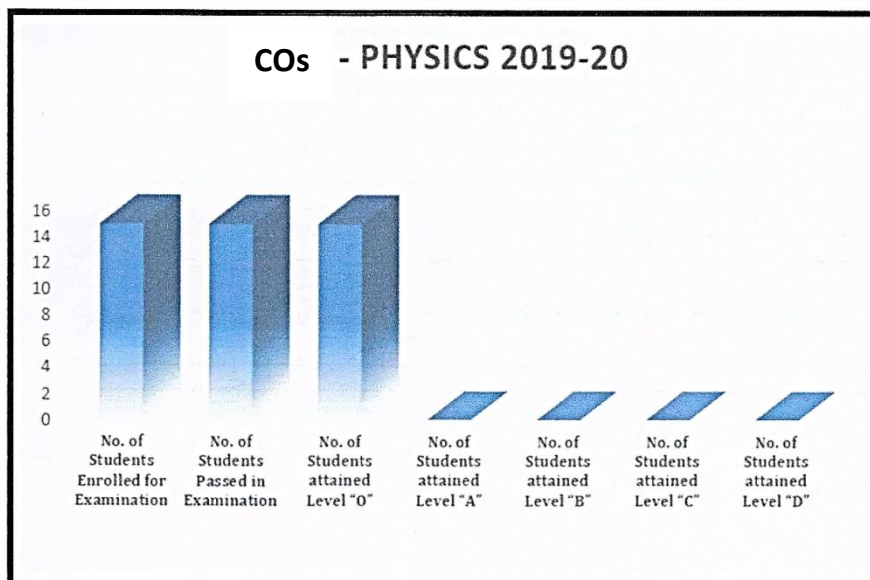
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

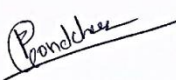
Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks


Level "D": Students secured less than 40% Marks




**Attainment of Course Outcome 2019-2020**

  
**Head**  
Department of Physics



  
**DR. S. D. THAKARE**  
Coordinator, I.Q.A.C.  
Coordinator  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
**PRINCIPAL**  
Principal  
Matoshree Vimalabai Deshmukh  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Mathematics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Mathematics)**

**COs of B.Sc. "Mathematics"**

**After the completion of the course the students will be able:**

CO 1: To understand the common body of knowledge in mathematics and apply analytical and theoretical skills to model and solve the mathematical problems.

CO 2: To understand various concepts of Trigonometry

CO 3: To understand Differential Equations: Ordinary and Partial.

CO 4: To understand Vector Analysis and Solid Geometry.

CO 5: To understand advanced calculus and Elementary Number theory.

CO 6: To grasp various mathematical methods.

CO 7: To understand Linear Algebra, Graph Theory, and Special Theory of Relativity.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2019-2020</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>15</b>
<b>No. of Students Passed in Examination</b>	<b>15</b>
<b>No. of Students attained Level "O"</b>	<b>15</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

**Level "O": Students secured 75 % & above marks**

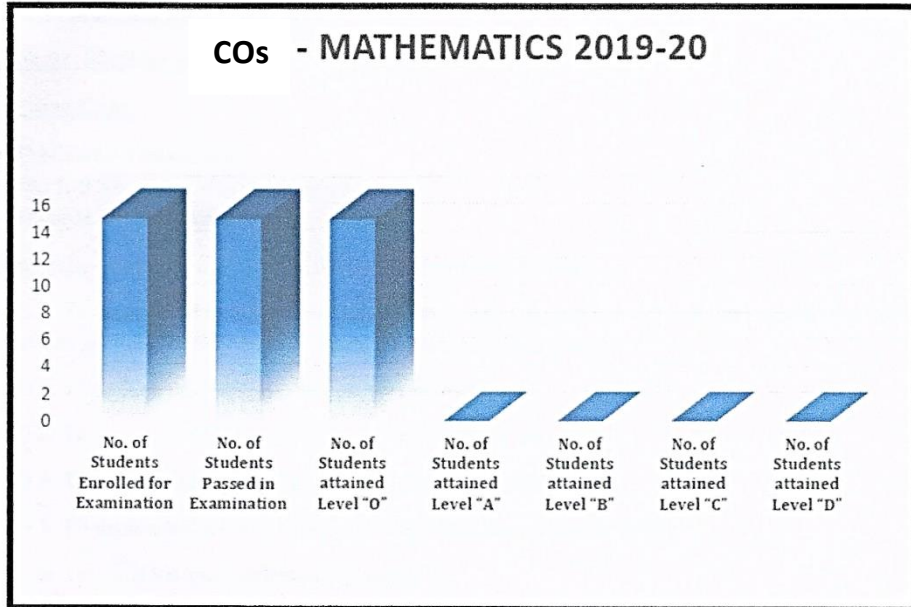
**Level "A": Students secured 60-74% marks**

**Level "B": Students secured 46 to 59 % Marks**

**Level "C": Students secured 40 to 45 % Marks**

**Level "D": Students secured less than 40% Marks**

### COs - MATHEMATICS 2019-20



### Attainment of Course Outcome 2019-2020

*Ahambani*  
**Head**  
 Department of Mathematics



*S.D. Thakare*  
**DR. S. D. THAKARE**  
 IOAC  
 Coordinator, I.Q.A.C.  
 Matoshree Vimalabai Deshmukh Mahavidyalaya,  
 Amravati

*Principal*  
**PRINCIPAL**  
 Matoshree Vimalabai Deshmukh  
 Mahavidyalaya,  
 Amravati

**Attainment of Course Outcome:**

**Course: Chemistry**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Chemistry**

**COs of B.Sc. "Chemistry"**

**After the completion of the course the students will be able:**

- CO 1: To understand applications of aromatic hydrocarbons and aliphatic hydrocarbons.  
CO 2: To understand kinetic theory of gases and crystal field theory.  
CO 3: To know about the concepts of hybridization and hybridization of different molecules and their geometry.  
CO 4: To understand concepts of stereochemistry and electrochemistry.  
CO 5: To become aware of the spectroscopy and mass spectrometry of Nuclear Magnetic Resonance phenomena.  
CO 6: To identify inter conversions of chemical and electrical energy by experience of electrochemistry of radio isotopes in industry, agriculture, medicine and biosciences.  
CO 7: To know complex thermodynamic and kinetic stability and complex geometry.  
CO 8: To know fundamentals of organometallic chemistry, inorganic polymers and bio-inorganic chemistry.  
CO 9: To understand the chemistry of transition elements.  
CO 10: To understand the colligative properties of dilute water as well as the rules of symmetry.  
CO 11: To know the spectroscopic methods to consider the molecule's atomic structure.  
CO 12: To classify colors depending on the structure and mode of operation, peroration and use of colorants, medications and pesticides.  
CO 13: To understand the photochemical and thermal reactions by radiation - matter interaction.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2019-2020</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>80</b>
<b>No. of Students Passed in Examination</b>	<b>80</b>
<b>No. of Students attained Level "O"</b>	<b>80</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>



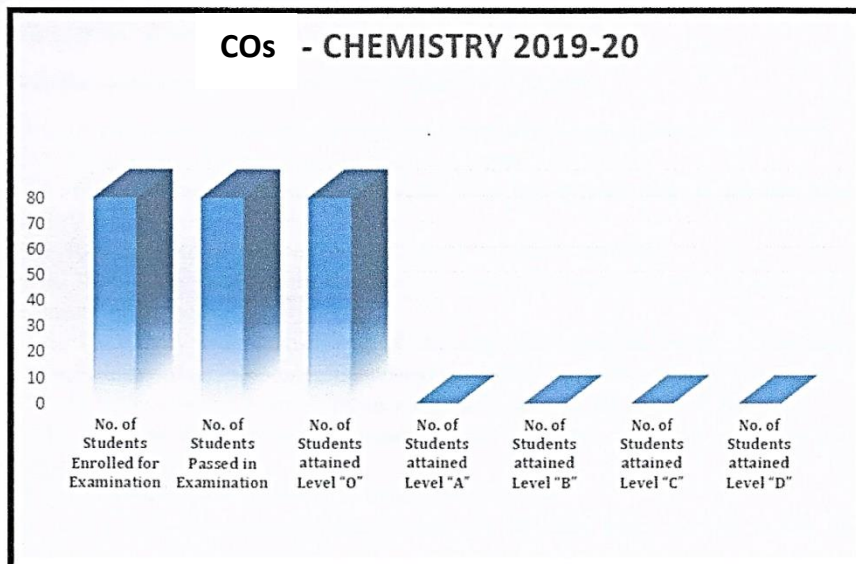
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2019-2020**

*[Signature]*  
Head

Department of Chemistry



*[Signature]*

DR. IQACHAKARE  
Coordinator Q.A.C.

Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

*[Signature]*

PRINCIPAL

Matoshree Vimalabai Deshmukh

Mahavidyalaya,  
Amravati

**Programme Outcomes (POs) and Course Outcomes (COs) of science  
2020-21**

**Matoshree Vimalabai Deshmukh Mahavidyalaya, Amravati**

**Programme: Undergraduate B.Sc. (Bachelor of Science)**

**Academic Session 2020-2021**

**Attainment of Programme Outcome and Course Outcome**

**Programme: B.Sc. (Science)**

<b>Year</b>	<b>2020-2021</b>
<b>No. of Students Enrolled</b>	<b>307</b>

**Program Outcomes (POs) of UG Programmes - B.Sc. (Science)**

**Students of all undergraduate degree Programmes at the time of graduation will be able to-**

After completion of B.Sc. program, the students will be able:

1. To acquire general grasp of science and technology.
2. To acquire knowledge in all basic sciences.
3. To use modern tools of ICT to learn and transfer knowledge.
4. To develop analytical skills to tackle real life problems.
5. To familiarize with the fundamentals of science education.
6. To develop a spirit of scientific temper and inquiry.

**Attainment of Programme Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2020-2021</b>	<b>Semester-VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>135</b>
<b>No. of Students Passed in Examination</b>	<b>134</b>
<b>No. of Students attained Level "O"</b>	<b>58</b>
<b>No. of Students attained Level "A"</b>	<b>76</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>01</b>

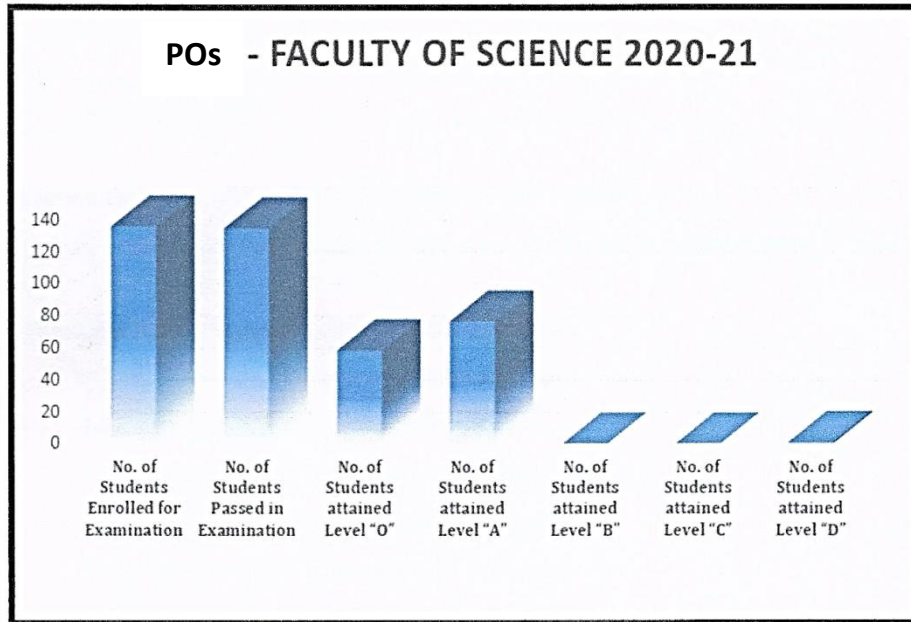
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Programme Outcome 2020-2021**



  
**DR. S. D. THAKARE**  
Coordinator, I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh  
Mahavidyalaya, Amravati.

**Attainment of Course Outcome:**

**Course: Botany**

**Course Code: -**

CO (Course Outcomes)  
B.Sc. I, B.Sc. II, B.Sc. III (Botany)  
COs of B.Sc. "Botany"

After the completion of the course the students will be able:

CO 1: To understand diversity and applications of Microbes and Cryptogams,

CO 2: To know about taxonomical and economical study of gymnosperms and utilization of spices, timber and Bamboo.

CO 3: To understand about conservation of flora in forest ecosystem

CO 4: To know about classification of plants based on anatomy and embryology.

CO 5: To understand the role of cell biology, role of genetics and biochemistry of plants.

CO 6: To know about the physiological characters of wild and cultivated plants.

CO 7: To understand food chain and food web in ecosystem.

CO 8: To understand DNA technology, the concepts of gene, cloning vectors, gene transfer techniques, tissue culture techniques, fermentation technology, health care edible vaccines etc.

CO 9: To understand basics of prokaryotic system, role of microbes in agriculture, medicine and industry.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2020-2021</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>81</b>
<b>No. of Students Passed in Examination</b>	<b>81</b>
<b>No. of Students attained Level "O"</b>	<b>09</b>
<b>No. of Students attained Level "A"</b>	<b>71</b>
<b>No. of Students attained Level "B"</b>	<b>01</b>
<b>No. of Students attained Level "C"</b>	<b>00</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

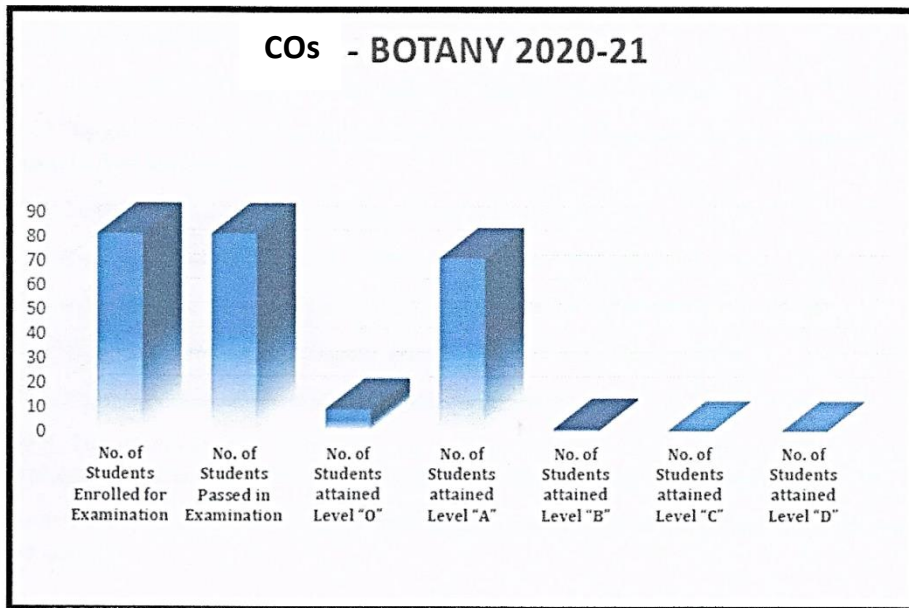
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks




**Attainment of Course Outcome 2020-2021**

  
Head  
Department of Botany



  
DR. S. D. THAKARE  
IQAC Coordinator, I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
PRINCIPAL  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Zoology**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc. II, B.Sc. III (Zoology)**

**COs of B.Sc. "Zoology"**

**After the completion of the course of the students will be able:**

CO 1: To understand cell and its various cell organelles and its functions.

CO 2: To obtain knowledge about diverse branches of biology like genetics, evolution, ecology, physiology and biotechnology.

CO 3: To acquire basic skills in the observation and study of nature, biological teaching, experimental skills and scientific investigation.

CO 4: To understand the unit of life, rich nature of bio diversity of organism and their ecological and evolutionary significance.

CO 5: To make career in such diverse fields as Apiculture, Sericulture, Fisheries and Lac culture.

CO 6: To work in zoological survey of India, Archeology, wild life management, photography.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2020-2021</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>81</b>
<b>No. of Students Passed in Examination</b>	<b>81</b>
<b>No. of Students attained Level "O"</b>	<b>01</b>
<b>No. of Students attained Level "A"</b>	<b>65</b>
<b>No. of Students attained Level "B"</b>	<b>12</b>
<b>No. of Students attained Level "C"</b>	<b>03</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

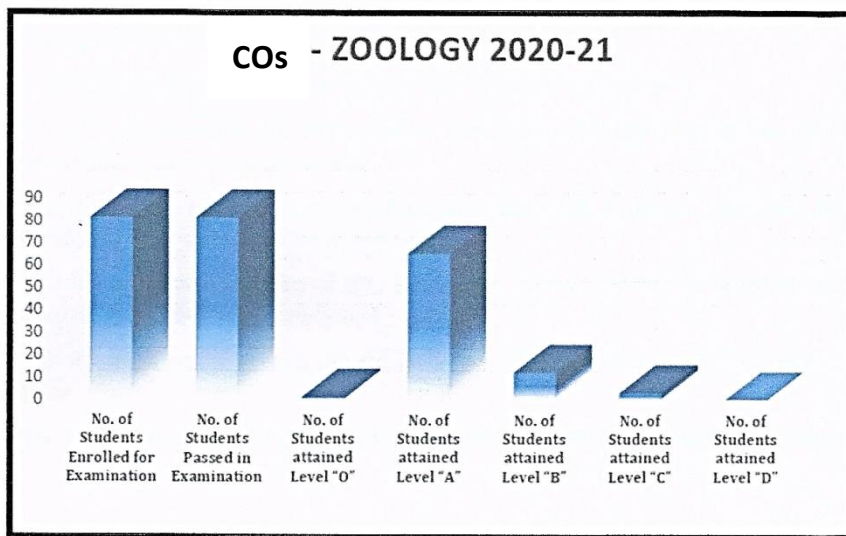
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2020-2021**



*[Signature]*

**Head**  
**Department of Zoology**

*[Signature]*

**DR. S. D. THAKARE**  
**Coordinator, I.Q.A.C.**  
**Matoshree Vimalabai Deshmukh Mahavidyalaya,**  
**Amravati**

*[Signature]*

**PRINCIPAL**  
**Principal**  
**Matoshree Vimalabai Deshmukh**  
**Matoshree Vimalabai Deshmukh Mahavidyalaya,**  
**Amravati**

**Attainment of Course Outcome:**

**Course: Physics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Physics)**

**COs of B.Sc. "Physics"**

**After the completion of the course the students will be able:**

CO 1: To understand the concepts of gravitation and planetary motions.

CO 2: To know about kinetic theory of gases, the basic laws of thermodynamics, and the concepts of alternating current with various with various combinations

CO 3: To know about mathematical background and laws of electrostatics, solid state electronic devices and special theory of relativity.

CO 4: To understand the various branches of Physics as optics, acoustics, and various renewable sources of energy.

CO 5: To understand the concepts of statistical mechanics and solid-state physics.

CO 6: To know about quantum mechanics and nuclear physics.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2020-2021</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>54</b>
<b>No. of Students Passed in Examination</b>	<b>53</b>
<b>No. of Students attained Level "O"</b>	<b>42</b>
<b>No. of Students attained Level "A"</b>	<b>09</b>
<b>No. of Students attained Level "B"</b>	<b>00</b>
<b>No. of Students attained Level "C"</b>	<b>02</b>
<b>No. of Students attained Level "D"</b>	<b>01</b>



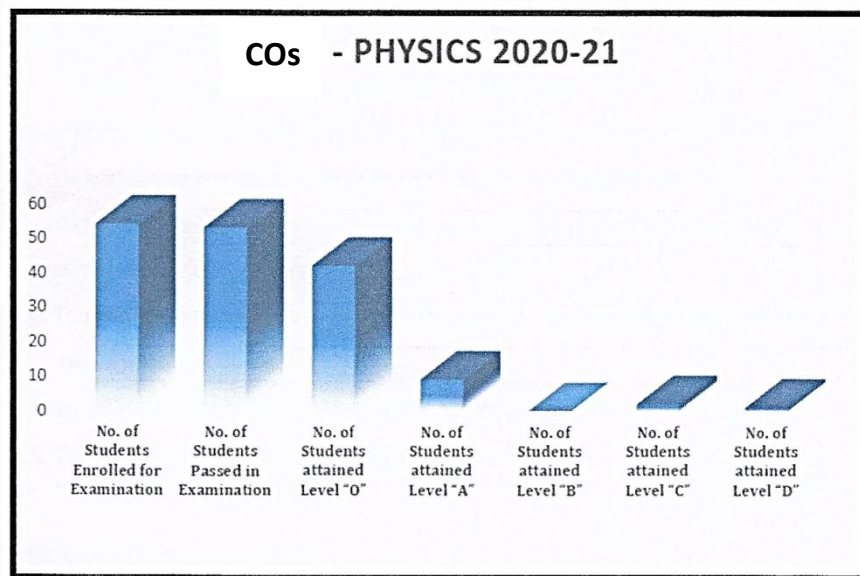
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks


Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks




**Attainment of Course Outcome 2020-2021**

  
**Head**  
Department of Physics



  
**DR. S. D. THAKARE**  
IOAC  
Coordinator, I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Mathematics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Mathematics)**

**COs of B.Sc. "Mathematics"**

**After the completion of the course the students will be able:**

CO 1: To understand the common body of knowledge in mathematics and apply analytical and theoretical skills to model and solve the mathematical problems.

CO 2: To understand various concepts of Trigonometry

CO 3: To understand Differential Equations: Ordinary and Partial.

CO 4: To understand Vector Analysis and Solid Geometry.

CO 5: To understand advanced calculus and Elementary Number theory.

CO 6: To grasp various mathematical methods.

CO 7: To understand Linear Algebra, Graph Theory, and Special Theory of Relativity.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2020-2021</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>54</b>
<b>No. of Students Passed in Examination</b>	<b>54</b>
<b>No. of Students attained Level "O"</b>	<b>43</b>
<b>No. of Students attained Level "A"</b>	<b>07</b>
<b>No. of Students attained Level "B"</b>	<b>01</b>
<b>No. of Students attained Level "C"</b>	<b>03</b>
<b>No. of Students attained Level "D"</b>	<b>00</b>

**Level "O": Students secured 75 % & above marks**

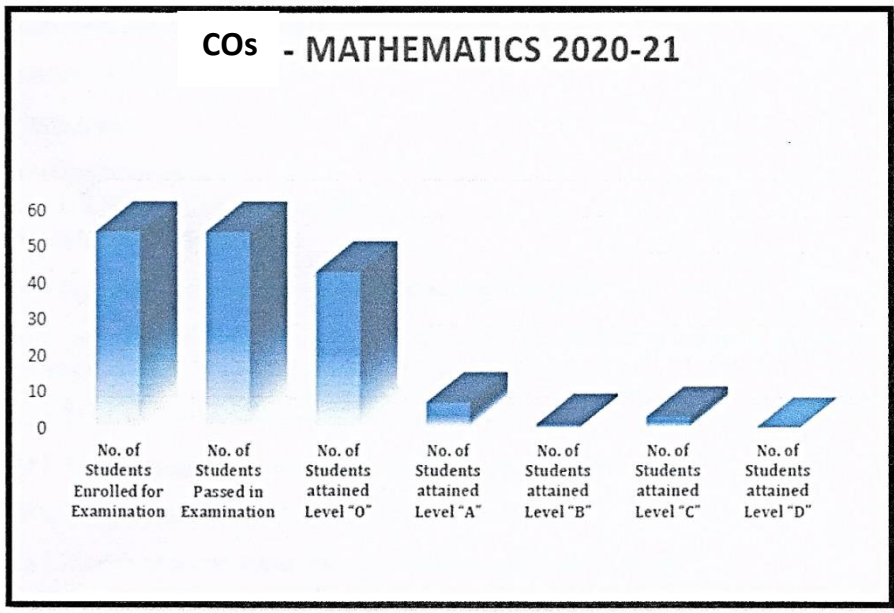
**Level "A": Students secured 60-74% marks**

**Level "B": Students secured 46 to 59 % Marks**

**Level "C": Students secured 40 to 45 % Marks**

**Level "D": Students secured less than 40% Marks**

### COs - MATHEMATICS 2020-21



### Attainment of Course Outcome 2019-2020

*Phalnarani*  
**Head**  
 Department of Mathematics



*[Signature]*  
**DR. S. D. THAKARE**  
 Coordinator, I.Q.A.C.  
 Matoshree Vimalabai Deshmukh Mahavidyalaya  
 Amravati

*[Signature]*  
**PRINCIPAL**  
 Matoshree Vimalabai Deshmukh  
**Matoshree Vimalabai Deshmukh Mahavidyalaya,**  
 Amravati

**Attainment of Course Outcome:**

**Course: Chemistry**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Chemistry)**

**COs of B.Sc. "Chemistry"**

**After the completion of the course the students will be able:**

CO 1: To understand applications of aromatic hydrocarbons and aliphatic hydrocarbons.

CO 2: To understand kinetic theory of gases and crystal field theory.

CO 3: To know about the concepts of hybridization and hybridization of different molecules and their geometry.

CO 4: To understand concepts of stereochemistry and electrochemistry.

CO 5: To become aware of the spectroscopy and mass spectrometry of Nuclear Magnetic Resonance phenomena.

CO 6: To identify inter conversions of chemical and electrical energy by experience of electrochemistry of radio isotopes in industry, agriculture, medicine and biosciences.

CO 7: To know complex thermodynamic and kinetic stability and complex geometry.

CO 8: To know fundamentals of organometallic chemistry, inorganic polymers and bio-inorganic chemistry.

CO 9: To understand the chemistry of transition elements.

CO 10: To understand the colligative properties of dilute water as well as the rules of symmetry.

CO 11: To know the spectroscopic methods to consider the molecule's atomic structure.

CO 12: To classify colors depending on the structure and mode of operation, peroration and use of colorants, medications and pesticides.

CO 13: To understand the photochemical and thermal reactions by radiation - matter interaction.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2020-2021</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>135</b>
<b>No. of Students Passed in Examination</b>	<b>134</b>
<b>No. of Students attained Level "O"</b>	<b>81</b>
<b>No. of Students attained Level "A"</b>	<b>44</b>
<b>No. of Students attained Level "B"</b>	<b>04</b>
<b>No. of Students attained Level "C"</b>	<b>05</b>
<b>No. of Students attained Level "D"</b>	<b>01</b>

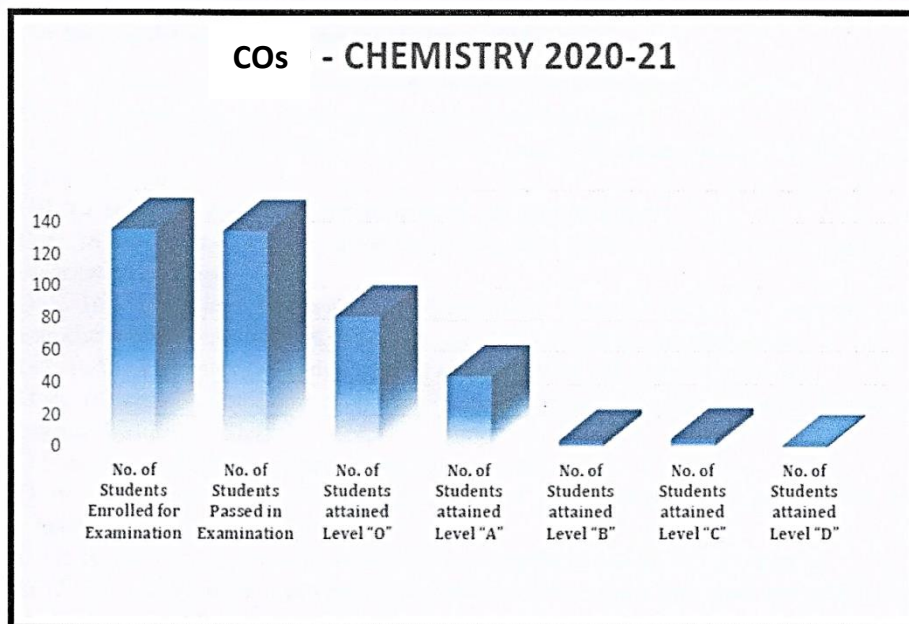
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2020-2021**

*[Signature]*  
**Head**  
Department of Chemistry



*[Signature]*  
**DR IQACTHAKARE**  
Coordinator, Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

*[Signature]*  
**Principal**  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Programme Outcomes (POs) and Course Outcomes (COs) of science  
2020-21**

**Matoshree Vimalabai Deshmukh Mahavidyalaya, Amravati**

**Programme: Undergraduate B.Sc. (Bachelor of Science)**

**Academic Session 2021-2022**

**Attainment of Programme Outcome and Course Outcome**

**Programme: B.Sc. (Science)**

<b>Year</b>	<b>2021-2022</b>
<b>No. of Students Enrolled</b>	<b>205</b>

**Program Outcomes (POs) of UG Programmes - B.Sc. (Science)**

**Students of all undergraduate degree Programmes at the time of graduation will be able to-**

After completion of B.Sc. program, the students will be able:

1. To acquire general grasp of science and technology.
2. To acquire knowledge in all basic sciences.
3. To use modern tools of ICT to learn and transfer knowledge.
4. To develop analytical skills to tackle real life problems.
5. To familiarize with the fundamentals of science education.
6. To develop a spirit of scientific temper and inquiry.

**Attainment of Programme Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2021-2022</b>	<b>Semester-VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>89</b>
<b>No. of Students Passed in Examination</b>	<b>50</b>
<b>No. of Students attained Level "O"</b>	<b>07</b>
<b>No. of Students attained Level "A"</b>	<b>10</b>
<b>No. of Students attained Level "B"</b>	<b>11</b>
<b>No. of Students attained Level "C"</b>	<b>22</b>
<b>No. of Students attained Level "D"</b>	<b>39</b>

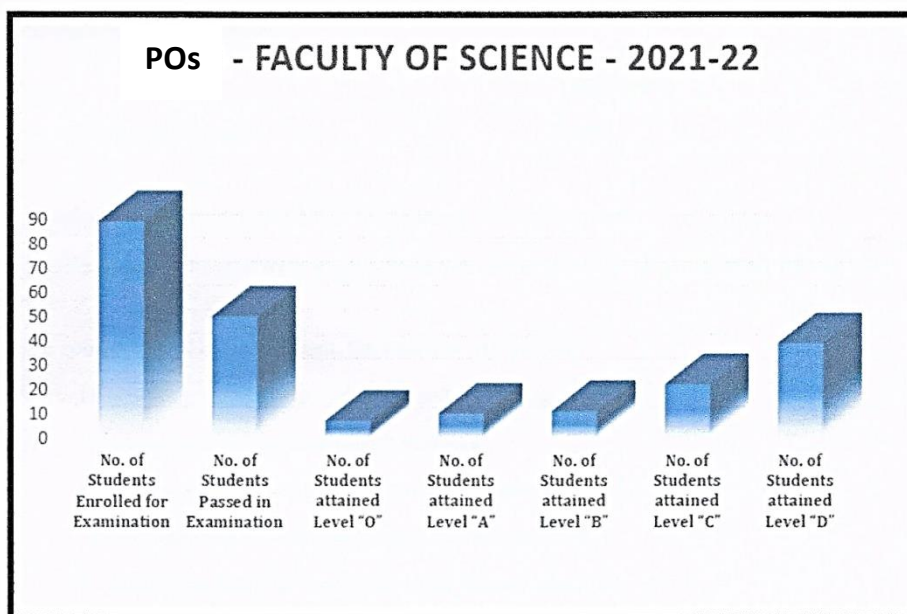
**Level "O": Students secured 75 % & above marks**

**Level "A": Students secured 60-74% marks**

**Level "B": Students secured 46 to 59 % Marks**

**Level "C": Students secured 40 to 45 % Marks**

**Level "D": Students secured less than 40% Marks**



**Attainment of Programme Outcome 2021-2022**



  
**PRINCIPAL**  
Matoshree Vimalabai Deshmukh  
Mahavidyalaya, Amravati

  
**DR. S. D. THAKARE**  
Coordinator, I.Q.A.C.  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati

**Attainment of Course Outcome:**

**Course: Botany**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc.II, B.Sc. III (Botany)**

**COs of B.Sc. "Botany"**

After the completion of the course the students will be able:

CO 1: To understand diversity and applications of Microbes and Cryptogams,

CO 2: To know about taxonomical and economical study of gymnosperms and utilization of spices, timber and Bamboo.

CO 3: To understand about conservation of flora in forest ecosystem

CO 4: To know about classification of plants based on anatomy and embryology.

CO 5: To understand the role of cell biology, role of genetics and biochemistry of plants.

CO 6: To know about the physiological characters of wild and cultivated plants.

CO 7: To understand food chain and food web in ecosystem.

CO 8: To understand DNA technology, the concepts of gene, cloning vectors, gene transfer techniques, tissue culture techniques, fermentation technology, health care edible vaccines etc.

CO 9: To understand basics of prokaryotic system, role of microbes in agriculture, medicine and industry.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2021-2022</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>62</b>
<b>No. of Students Passed in Examination</b>	<b>45</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>07</b>
<b>No. of Students attained Level "C"</b>	<b>38</b>
<b>No. of Students attained Level "D"</b>	<b>17</b>



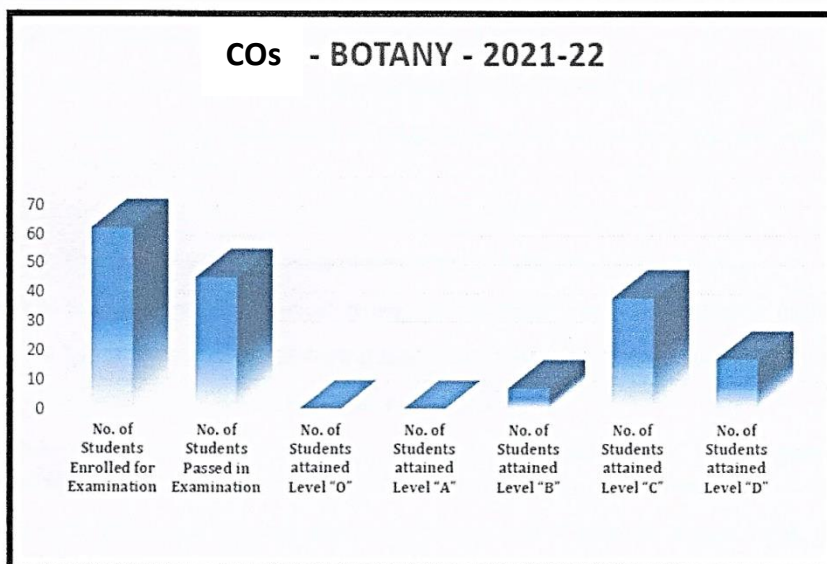
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2021-2022**

  
Head

Department of Botany





DR. S.O. THAKARE  
IQAC  
Coordinator, I.O.A.C.  
Coordinator  
Matoshree Vimalabai Deshmukh Mahavidyalaya  
Amravati



PRINCIPAL  
Principal  
Matoshree Vimalabai Deshmukh  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Zoology**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc. II., B.Sc. III (Zoology)**

**COs of B.Sc. "Zoology"**

**After the completion of the course of the students will be able:**

CO 1: To understand cell and its various cell organelles and its functions.

CO 2: To obtain knowledge about diverse branches of biology like genetics, evolution, ecology, physiology and biotechnology.

CO 3: To acquire basic skills in the observation and study of nature, biological teaching, experimental skills and scientific investigation.

CO 4: To understand the unit of life, rich nature of bio diversity of organism and their ecological and evolutionary significance.

CO 5: To make career in such diverse fields as Apiculture, Sericulture, Fisheries and Lac culture.

CO 6: To work in zoological survey of India, Archeology, wild life management, photography.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2021-2022</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>62</b>
<b>No. of Students Passed in Examination</b>	<b>44</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>01</b>
<b>No. of Students attained Level "B"</b>	<b>02</b>
<b>No. of Students attained Level "C"</b>	<b>41</b>
<b>No. of Students attained Level "D"</b>	<b>18</b>

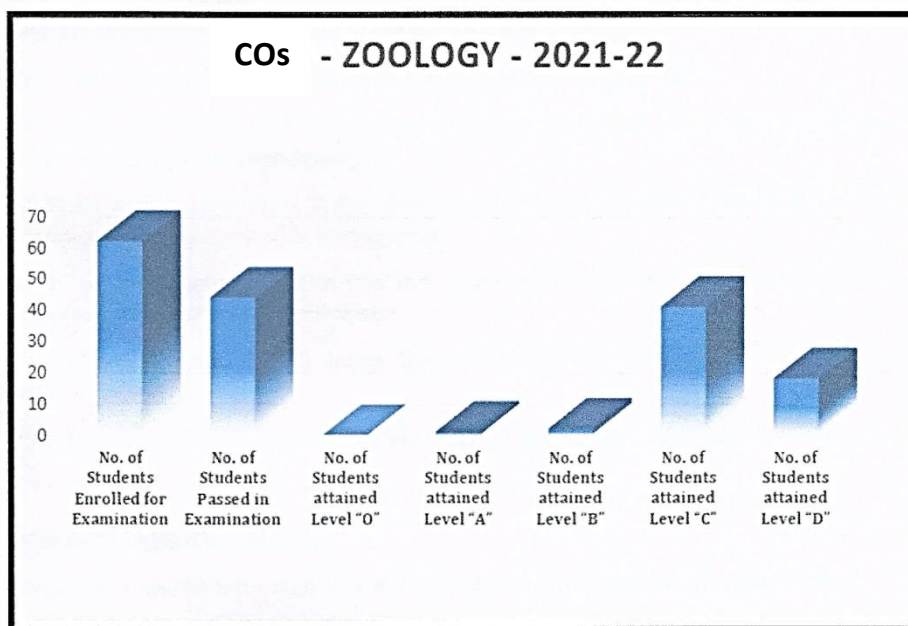
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2021-2022**

  
Head

Department of Zoology





DR. S. D. THAKARE  
Coordinator, I.Q.A.C.  
Coordinator

Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati



PRINCIPAL  
Principal

Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati

**Attainment of Course Outcome:**

**Course: Physics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Physics)**

**COs of B.Sc. "Physics"**

**After the completion of the course the students will be able:**

CO 1: To understand the concepts of gravitation and planetary motions.

CO 2: To know about kinetic theory of gases, the basic laws of thermodynamics, and the concepts of alternating current with various with various combinations

CO 3: To know about mathematical background and laws of electrostatics, solid state electronic devices and special theory of relativity.

CO 4: To understand the various branches of Physics as optics, acoustics, and various renewable sources of energy.

CO 5: To understand the concepts of statistical mechanics and solid-state physics.

CO 6: To know about quantum mechanics and nuclear physics.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2021-2022</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>27</b>
<b>No. of Students Passed in Examination</b>	<b>21</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>10</b>
<b>No. of Students attained Level "C"</b>	<b>11</b>
<b>No. of Students attained Level "D"</b>	<b>06</b>

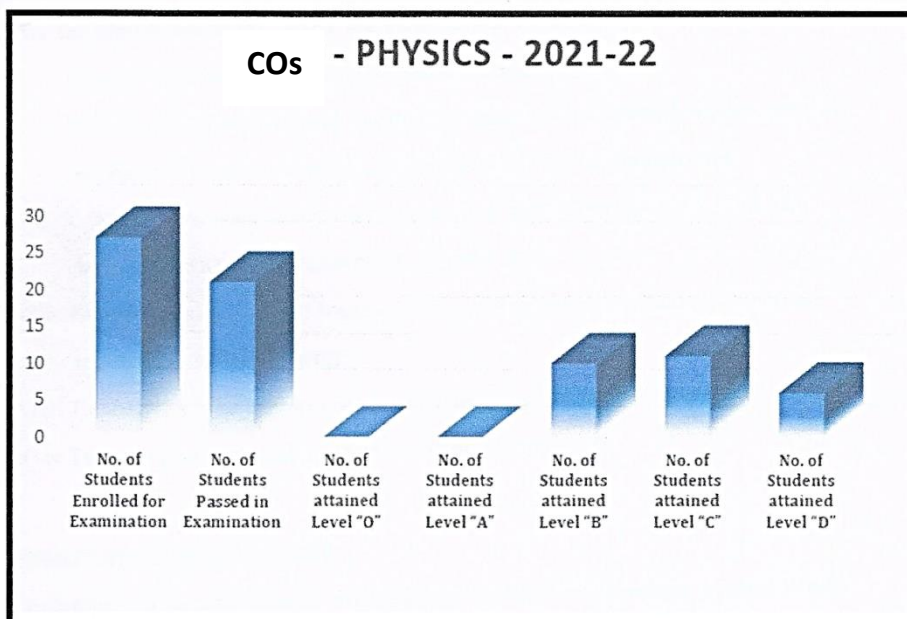
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2021-2022**

**Head  
Department of Physics**



**DR. IQAC CHAKARE  
Coordinator  
Matoshree Vimalabai Deshmukh Mahavidyalaya,  
Amravati**

**PRINCIPAL  
Principal  
Matoshree Vimalabai Deshmukh  
Mahavidyalaya, Amravati.**

**Attainment of Course Outcome:**

**Course: Mathematics**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Mathematics)**

**COs of B.Sc. "Mathematics"**

**After the completion of the course the students will be able:**

CO 1: To understand the common body of knowledge in mathematics and apply analytical and theoretical skills to model and solve the mathematical problems.

CO 2: To understand various concepts of Trigonometry

CO 3: To understand Differential Equations: Ordinary and Partial.

CO 4: To understand Vector Analysis and Solid Geometry.

CO 5: To understand advanced calculus and Elementary Number theory.

CO 6: To grasp various mathematical methods.

CO 7: To understand Linear Algebra, Graph Theory, and Special Theory of Relativity.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2021-2022</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>27</b>
<b>No. of Students Passed in Examination</b>	<b>23</b>
<b>No. of Students attained Level "O"</b>	<b>03</b>
<b>No. of Students attained Level "A"</b>	<b>08</b>
<b>No. of Students attained Level "B"</b>	<b>03</b>
<b>No. of Students attained Level "C"</b>	<b>09</b>
<b>No. of Students attained Level "D"</b>	<b>04</b>

**Attainment of Course Outcome:**

**Course: Chemistry**

**Course Code: -**

**CO (Course Outcomes)**

**B.Sc. I, B.Sc., B.Sc. III (Chemistry)**

**COs of B.Sc. "Chemistry"**

**After the completion of the course the students will be able:**

CO 1: To understand applications of aromatic hydrocarbons and aliphatic hydrocarbons.

CO 2: To understand kinetic theory of gases and crystal field theory.

CO 3: To know about the concepts of hybridization and hybridization of different molecules and their geometry.

CO 4: To understand concepts of stereochemistry and electrochemistry.

CO 5: To become aware of the spectroscopy and mass spectrometry of Nuclear Magnetic Resonance phenomena.

CO 6: To identify inter conversions of chemical and electrical energy by experience of electrochemistry of radio isotopes in industry, agriculture, medicine and biosciences.

CO 7: To know complex thermodynamic and kinetic stability and complex geometry.

CO 8: To know fundamentals of organometallic chemistry, inorganic polymers and bio-inorganic chemistry.

CO 9: To understand the chemistry of transition elements.

CO 10: To understand the colligative properties of dilute water as well as the rules of symmetry.

CO 11: To know the spectroscopic methods to consider the molecule's atomic structure.

CO 12: To classify colors depending on the structure and mode of operation, peroration and use of colorants, medications and pesticides.

CO 13: To understand the photochemical and thermal reactions by radiation - matter interaction.

**Attainment of Course Outcome:**

**(Including Assessment through Internal Assessment, Viva, Seminar, Project Work)**

<b>Year 2021-2022</b>	<b>Semester -VI</b>
<b>No. of Students Enrolled for Examination</b>	<b>89</b>
<b>No. of Students Passed in Examination</b>	<b>53</b>
<b>No. of Students attained Level "O"</b>	<b>00</b>
<b>No. of Students attained Level "A"</b>	<b>00</b>
<b>No. of Students attained Level "B"</b>	<b>02</b>
<b>No. of Students attained Level "C"</b>	<b>51</b>
<b>No. of Students attained Level "D"</b>	<b>36</b>

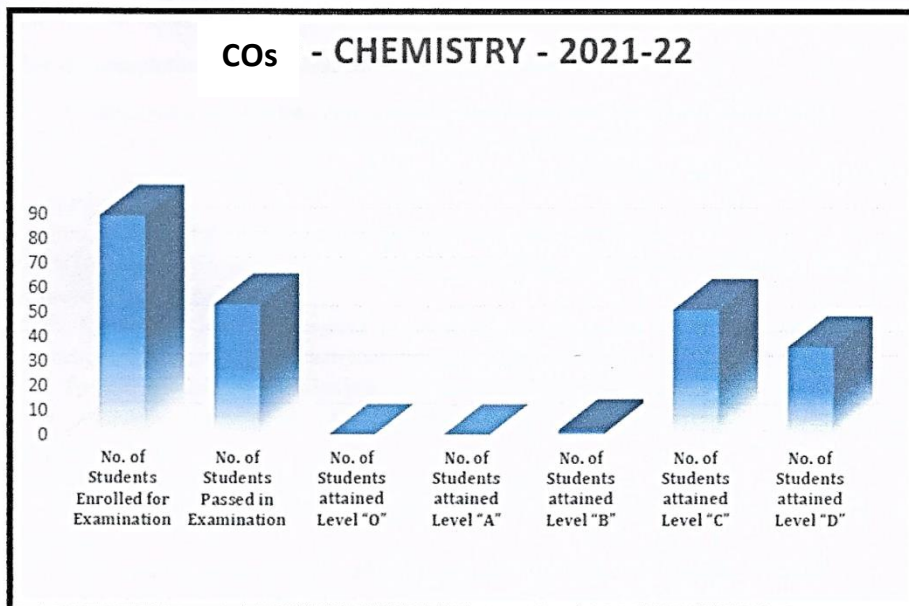
Level "O": Students secured 75 % & above marks

Level "A": Students secured 60-74% marks

Level "B": Students secured 46 to 59 % Marks

Level "C": Students secured 40 to 45 % Marks

Level "D": Students secured less than 40% Marks



**Attainment of Course Outcome 2021-2022**

*[Signature]*  
Head

Department of Chemistry



*[Signature]*  
DR. S. D. THAKARE  
IOAC  
Coordinator  
Matoshree Vinayabai Deshmukh Mahavidyalaya  
Amravati

*[Signature]*

PRINCIPAL

Principal

Matoshree Vinayabai Deshmukh

Matoshree Vinayabai Deshmukh Mahavidyalaya,

Amravati