

**LESSON PLAN**

<b>Name of College:</b> D.Y.Patil Institute of optometry and visual sciences			
<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Refractive Instruments <b>Lesson Title:</b> visual acuity <b>Learning Outcomes:</b> students should know the documentation of vision, Factors effecting the visual acuity, test chart standards <b>Specific Learning Objectives:</b> <ol style="list-style-type: none"> <li>1. To know about vision, visual acuity</li> <li>2. Explain the procedure of the visual acuity</li> <li>3. Documentation of the vision</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b> 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A.V. Aids</b> PPT/ projector	<b>Assessment Method</b> Oral questioning
45 minutes	Detailed explanation of visual acuity, chart standards, procedure of the visual acuity with its documentation		
10 minutes	Q & A Session, interactive doubt solving session		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Refractive Instruments <b>Lesson Title:</b> Trial Box <b>Learning Outcomes:</b> Students should know the use of trial box & its accessories' <b>Specific Learning Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain about different types of lenses</li> <li>2. To know the use of different accessories</li> <li>3. To know about different trial frames</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A.V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b>	Revision of the previous topic	PPT/ projector	Class test
10 minues	Introduction of the new topic		
5 minutes	Detailed explanation of the trial box with the uses		
35 minutes	interactive doubt solving session		
10 minutes	Revision of the previous topic	Demonstration	
<b>Day 2</b>	Accessories of the trial box		
10 minutes	Q & A Session		
30 minutes			
20 minutes			
<b>List of Learning Resources</b>			
Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<p><b>Topic:</b> Refractive Instruments  <b>Lesson Title:</b> visual acuity charts in pediatric  <b>Learning Outcomes:</b> Students should know the procedure of different charts used in pediatric patients  <b>Specific Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Explain about different charts based on the age group</li> <li>2. Describe the procedure of taking vision with different charts</li> <li>3. Documentation of the vision</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b> 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A.V. Aids</b> PPT/ projector	<b>Assessment Method</b> Oral questioning
45 minutes	Detailed explanation of different charts with their uses in different age groups	Demonstration	
10 minutes	Q & A Session, interactive doubt solving session		
<p><b>List of Learning Resources</b>  Optometric instruments Dravid B. Henson  Santosh K Kumar</p>			

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<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Refractive Instruments <b>Lesson Title:</b> visual acuity charts in adults <b>Learning Outcomes:</b> Students should know about different charts used in adults with their procedure <b>Specific Learning Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain about different charts</li> <li>2. Demonstrate the procedure of taking vision with different charts</li> <li>3. Documentation of the vision</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 75 minutes			
<b>Time:</b> 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A.V. Aids</b> PPT/ projector	<b>Assessment Method</b>  Oral questioning
45 minutes	Detailed explanation of different charts with their uses Procedure of taking visual acuity		
10 minutes	Q & A Session, interactive doubt solving session		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Refractive Instruments <b>Lesson Title:</b> phoropter <b>Learning Outcomes:</b> At the end of the lecture students should be able to use phoropter <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain the use of all the accessories in the phoropter</li> <li>2. Patient adjustment in front of the instrument</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b> 10 minues	<b>Activity Description</b> Revision of the previous topic	<b>Resources/A.V. Aids</b> PPT/ projector	<b>Assessment Method</b>  Group discussion
5 minutes	Introduction of the topic		
35 minutes	Detailed explanation of the phoropter with video presentation		
10 minutes	Q & A Session, interactive doubt solving session		
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<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Ophthalmoscopes <b>Lesson Title:</b> Direct ophthalmoscope <b>Learning Outcomes:</b> Students should be able to use ophthalmoscope and interpret the diagnosis <b>Objectives:</b> <ol style="list-style-type: none"> <li>Describe the procedure of ophthalmoscope</li> <li>Explain the optics of direct ophthalmoscope</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b> <b>Day 1</b> 10 minutes	<b>Activity Description</b> Revision of the previous topic	<b>Resources/A.V. Aids</b> PPT/ projector  Demonstration	<b>Assessment Method</b>  Class test
5 minutes	Introduction of the topic		
35 minutes	Parts and optics of the instrument		
10 minutes	Q & A Session,		
<b>Day 2</b> 40 minutes	Procedure and uses of the instrument		
20 minutes	interactive doubt solving session		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Ophthalmoscopes <b>Lesson Title:</b> Indirect ophthalmoscope <b>Learning Outcomes:</b> Students should be able to use ophthalmoscope and interpret the diagnosis <b>Objectives:</b> <ol style="list-style-type: none"> <li>Describe the procedure of indirect ophthalmoscope</li> <li>Explain the uses and image properties</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b> <b>Day 1</b> 10 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A.V. Aids</b> PPT/ projector  Demonstration	<b>Assessment Method</b>  Q & A Session,
40 minutes	Parts and optics of the instrument		
10 minutes	Q & A Session,		
<b>Day 2</b> 40 minutes	Procedure and image properties of the instrument		
20 minutes	interactive doubt solving session		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Slit lamp <b>Lesson Title:</b> Parts of slit lamp <b>Learning Outcomes:</b> Students should be able to perform slit lamp procedure <b>Objectives:</b> <ol style="list-style-type: none"> <li>Describe the parts of slit lamp</li> <li>Optics of slit lamp</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A.V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b>		PPT/ projector     Practical Demonstration	Q & A Session,
10 minutes	Revision of previous topic		
5 minutes	Introduction of the topic		
35 minutes	Parts and optics of the slit lamp		
10 minutes	Q & A Session,		
<b>Day 2</b>	Illumination techniques of slitlamp		
40 minutes			
20 minutes	Slit lamp accessories and uses		
<b>List of Learning Resources</b>			
Optometric instruments Dravid B. Henson Santosh K Kumar			



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<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Tonometers <b>Lesson Title:</b> Types of tonometers <b>Learning Outcomes:</b> students should be able to perform tonometry <b>Objectives:</b> <ol style="list-style-type: none"> <li>Types of tonometers</li> <li>Uses and interpretation of tonometers</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 90 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A.V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b> 5 minutes	Introduction of the topic	PPT/ projector	Q & A Session,
45 minutes	Types of tonometers		
10 minutes	Q & A Session,		
<b>Day 2</b> 40 minutes	Continuation of types of tonometers	Practical Demonstration	
20 minutes	Uses and interpretation		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Name of Department:</b> Optometry			
<b>Course</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Corneal Examination <b>Lesson Title:</b> Keratometer <b>Learning Outcomes:</b> students should be able to perform keratometry <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain the optics of keratometry</li> <li>2. List down the types of keratometers</li> <li>3. Uses and interpretations of keratometry</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A.V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b> 5 minutes	Introduction of the topic	PPT/ projector	Class test
45 minutes	Optics & types of kertometers		
10 minutes	Q & A Session,		
<b>Day 2</b> 40 minutes	procedure of keratometry	Practical Demonstration	
20 minutes	Uses and interpretation		
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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Corneal Examination <b>Lesson Title:</b> Corneal Topography <b>Learning Outcomes:</b> students should be able to perform topography and interpret the diagnosis <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain the applications of topography</li> <li>2. Describe about different parameters examined in topograpgy</li> <li>3. Uses and interpretations of topography</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A.V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b> 5 minutes	Introduction of the topic	PPT/ projector	Q & A Session,
45 minutes	Parameters analyzed in topographer		
10 minutes	Q & A Session,		
<b>Day 2</b> 40 minutes	procedure of topography	Demonstration session	
20 minutes	Uses and interpretation		
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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Corneal Examination <b>Lesson Title:</b> Corneal Topography <b>Learning Outcomes:</b> students should be able to perform topography and interpret the diagnosis <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain the applications of topography</li> <li>2. Describe about different parameters examined in topography</li> <li>3. Uses and interpretations of topography</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A.V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b> 5 minutes	Introduction of the topic	PPT/ projector	Q & A Session,
45 minutes	Parameters analyzed in topographer		
10 minutes	Q & A Session,		
<b>Day 2</b> 40 minutes	procedure of topography	Demonstration session	Q & A Session,
20 minutes	Uses and interpretation		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			



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**DR. D.Y. PATIL VIDYAPEETH, PUNE**

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**Accredited by NAAC with CGPA of 3.64 on a 4 point scale at 'A++' Grade**

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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Corneal Examination <b>Lesson Title:</b> Specular microscope <b>Learning Outcomes:</b> students should be able to perform specular microscopy and interpret the diagnosis <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain the applications of specular microscope</li> <li>2. Describe about different parameters examined in specular microscope</li> <li>3. Uses and interpretations of specular microscope</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
Time: Day 1	Activity Description	Resources/A.V. Aids	Assessment Method
5 minutes	Introduction of the topic	PPT/ projector	Mcq test
10 minutes	Optics of the instrument		
35 minutes	Procedure and parameters analyzed in specular microscope	Demonstration session	
10 minutes	Q & A Session,		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			



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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Corneal Examination <b>Lesson Title:</b> Asthesiometer <b>Learning Outcomes:</b> Students should know the different methods used to measure corneal sensitivity <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain different methods for measuring corneal sensitivity</li> <li>2. Interpretation and uses of the asthesiometry</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b> Day 1 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A. V. Aids</b>  PPT/ projector	<b>Assessment Method</b>   Q & A Session,
30 minutes	Different methods to measure corneal sensitivity		
15 minutes	Advantages & disadvantages		
10 minutes	Q & A Session,		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Exophthalmometer <b>Lesson Title:</b> Exophthalmometry <b>Learning Outcomes:</b> Students should know about the different exophthalmometers used <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain about luedde and hertel exophthalmometer</li> <li>2. Clinical uses of exophthalmometry</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b> <b>Day 1</b> 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A. V. Aids</b>  PPT/ projector	<b>Assessment Method</b>    Class test
30 minutes	Types of exophthalmometers		
15 minutes	Clinical uses of exophthalmometry		
10 minutes	Q & A Session,		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			

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<b>Name of Department:</b> Optometry			
<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> fundus camera <b>Lesson Title:</b> principal and technique <b>Learning Outcomes:</b> Students should know about technique and interpretation <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain about the parameters examined in fundus camera</li> <li>2. Procedure of fundus camera</li> <li>3. Clinical applications</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 60 minutes			
<b>Time:</b> <b>Day 1</b> 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A. V. Aids</b>  PPT/ projector	<b>Assessment Method</b>   Q & A Session,
25 minutes	Types of instruments and procedure		
20 minutes	Interpretation and clinical applications		
10 minutes	Q & A Session,		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			



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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Colour vision <b>Lesson Title:</b> <b>Learning Outcomes:</b> Students should be able to diagnose colour vision disorders <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain about different types of colour vision disorders</li> <li>2. Explain about tests for colour vision</li> <li>3. Mechanism of colour vision</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b>	<b>Activity Description</b>	<b>Resources/A. V. Aids</b>	<b>Assessment Method</b>
<b>Day 1</b> 5 minutes	Introduction of the topic	PPT/ projector	Mcq test
30 minutes	Mechanism & theories of colour vision		
15 minutes	colour senses		
10 minutes	Q & A Session,		
<b>Day 2</b> 10 minutes	Revision of the previous topic		
20 minutes	Colour blindness		
20 minutes	Tests for colour vision		
10 minutes	Q & A Session,		
<b>List of Learning Resources</b> Optometric instruments David B. Henson Santosh K Kumar			

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<b>Course:</b> Optometric Instruments		<b>Academic Year:</b> 2022-23	<b>Batch:</b> IInd year
<b>Topic:</b> Orthoptic Instruments <b>Lesson Title:</b> synaptophore <b>Learning Outcomes:</b> Students should be able to demonstrate exercises <b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Explain about different types of exercises performed on synaptophore</li> <li>2. Explain the parts and optics of synaptophore</li> <li>3. Uses and interpretations</li> </ol>			
<b>Instructional Method:</b> power point presentation			
<b>Duration:</b> 120 minutes			
<b>Time:</b> <b>Day 1</b> 5 minutes	<b>Activity Description</b> Introduction of the topic	<b>Resources/A. V. Aids</b>  PPT/ projector	<b>Assessment Method</b>   Q & A Session,
30 minutes	Principle & working		
15 minutes	Uses & interpretations		
10 minutes	Q & A Session,		
<b>List of Learning Resources</b> Optometric instruments Dravid B. Henson Santosh K Kumar			