Mechanics II

VIDEO LECTURE INDEX / 8 CHAPTERS

08	349	111:36:31
CHAPTERS	LECTURES	TOTAL VIDEO TIME

Calculated from listed durations. One entry written 00:18;36 is read as 00:18:36; the workbook overview states 111 hours 46 minutes.

CHAPTER 01 | System of Particles and Centre of Mass

#	CH. #	LECTURE / TOPIC	DURATION
1	1	Mech2__Ch1_1_Centre of Mass System of Particles	00:31:25
2	2	Mech2__Ch1_2_Centre of Mass System of Particles	00:32:55
3	3	Mech2__Ch1_3_Continiuos Mass Distribution	00:17:56
4	4	Mech2__Ch1_4_Continiuos Mass Distribution	00:13:41
5	5	Mech2__Ch1_5_Continiuos Mass Distribution	00:12:54
6	6	Mech2__Ch1_6_Velocity and Acceleration of Centre of Mass and System of Particles Applications	00:15:04
7	7	Mech2__Ch1_7_Velocity and Acceleration of Centre of Mass and Applications	00:16:22
8	8	Mech2__Ch1_8_Velocity and Acceleration of Centre of Mass and Applications	00:16:25
9	9	Mech2__Ch1_9_Velocity and Acceleration of Centre of Mass and Applications	00:21:48
10	10	Mech2__Ch1_10_Displacement of Centre of Mass	00:29:14
11	11	Mech2__Ch1_11_Displacement of Centre of Mass	00:14:11
12	12	Mech2__Ch1_12_Displacement of Centre of Mass	00:33:32
13	13	Mech2__Ch1_13_Displacement of Centre of Mass illustrations	00:14:52
14	14	Mech2__Ch1_14_Displacement of Centre of Mass illustrations	00:23:09

CHAPTER 01 | System of Particles and Centre of Mass · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
15	15	Mech2__Ch1_15_Displacement of Centre of Mass illustrations	00:25:25
16	16	Mech2__Ch1_16_Centre of Mass Conservation Linear and Mechanical Momentum	00:24:46
17	17	Mech2__Ch1_17_Centre of Mass Conservation Linear and Mechanical Momentum	00:23:51
18	18	Mech2__Ch1_18_Centre of Mass Application Conservation Linear and Mechanical Momentum	00:21:42
19	19	Mech2__Ch1_19_Centre of Mass Conservation Linear and Mechanical Momentum Illustrations	00:26:50
20	20	Mech2__Ch1_20_Centre of Mass Conservation Linear and Mechanical Momentum Illustrations	00:14:12
21	21	Mech2__Ch1_21_Centre of Mass Conservation Linear and Mechanical Momentum Illustrations	00:21:25
22	22	Mech2__Ch1_22_Centre of Mass Frame of Reference	00:34:24
23	23	Mech2__Ch1_23_Two Particle System Relative to Centre of Mass Frame	00:36:24
24	24	Mech2__Ch1_24_Two Particle System Relative to Centre of Mass Frame illustrations	00:34:07
25	25	Mech2__Ch1_25_Total work of Pseudo Forces in Centroidal Frame	00:16:04
SOLVED EXAMPLES			
26	26	Mech2__Ch1_1_System of Particles Solved Example	00:06:39
27	27	Mech2__Ch1_2_System of Particles Solved Example	00:08:06
28	28	Mech2__Ch1_3_System of Particles Solved Example	00:06:15
29	29	Mech2__Ch1_4_System of Particles Solved Example	00:04:13
30	30	Mech2__Ch1_5_System of Particles Solved Example	00:06:47
31	31	Mech2__Ch1_6_System of Particles Solved Example	00:13:06
32	32	Mech2__Ch1_7_System of Particles Solved Example	00:12:43
33	33	Mech2__Ch1_8_System of Particles Solved Example	00:13:58

MECHANICS II

CHAPTER 01 | System of Particles and Centre of Mass · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
34	34	Mech2__Ch1_9_System of Particles Solved Example	00:09:53
35	35	Mech2__Ch1_10_System of Particles Solved Example	00:07:25
36	36	Mech2__Ch1_11_System of Particles Solved Example	00:10:17
37	37	Mech2__Ch1_12_System of Particles Solved Example	00:05:36
38	38	Mech2__Ch1_13_System of Particles Solved Example	00:09:19
39	39	Mech2__Ch1_14_System of Particles Solved Example	00:09:56
40	40	Mech2__Ch1_15_System of Particles Solved Example	00:19:52
41	41	Mech2__Ch1_16_System of Particles Solved Example	00:10:54
42	42	Mech2__Ch1_17_System of Particles Solved Example	00:09:36
43	43	Mech2__Ch1_18_System of Particles Solved Example	00:21:03
		CHAPTER 01 TOTAL · 43 lectures	**12:38:16**

CHAPTER 02 | Impulse and Collsion

#	CH. #	LECTURE / TOPIC	DURATION
44	1	Mech2__Ch2_1_Impulse and Collision Momentum Equation	00:22:28
45	2	Mech2__Ch2_2_Impulse and Collision Momentum Equation	00:22:59
46	3	Mech2__Ch2_3_Analysing Impulse Forces & Application of Impulse Equations	00:31:18
47	4	Mech2__Ch2_4_Analysing Impulse Forces & Application of Impulse Equations	00:22:02
48	5	Mech2__Ch2_5_Analysing Impulse Forces & Application of Impulse Equations	00:33:23

CHAPTER 02 | Impulse and Collsion · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
49	6	Mech2__Ch2_6_Collision	00:32:59
50	7	Mech2__Ch2_7_Newton's Empirical Formula for Collsion	00:25:06
51	8	Mech2__Ch2_8_Newton's Empirical Formula for Collsion	00:15:22
52	9	Mech2__Ch2_9_Collision Head On	00:31:10
53	10	Mech2__Ch2_10_Collision Head On	00:27:13
54	11	Mech2__Ch2_11_Collision Head On Illustrations	00:13:51
55	12	Mech2__Ch2_12_Collision Head On Illustrations	00:21:55
56	13	Mech2__Ch2_13_Oblique Collision	00:17:07
57	14	Mech2__Ch2_14_Oblique Collision Illustrations	00:18:24
58	15	Mech2__Ch2_15_Oblique Collision Illustrations	00:19:20
59	16	Mech2__Ch2_16_Oblique Collision Two Moving Objects	00:10:54
60	17	Mech2__Ch2_17_Oblique Collision Two Disk Illustrations	00:16:21
61	18	Mech2__Ch2_18_Oblique Collision Two Disk Illustrations	00:13:49
62	19	Mech2__Ch2_19_Oblique Collision Two Disk Illustrations	00:24:18
63	20	Mech2__Ch2_20_Oblique Collision Particle and Wedge	00:32:50
64	21	Mech2__Ch2_21_Oblique Collision Particle and Wedge Illustrations	00:21:47
65	22	Mech2__Ch2_22_Oblique Collision Particle and Wedge Illustrations	00:27:05
66	23	Mech2__Ch2_23_Thrust Force Exerted by Flowing Fluid	00:35:26
67	24	Mech2__Ch2_24_Variable Mass System	00:35:07
68	25	Mech2__Ch2_25_Variable Mass System	00:31:56

CHAPTER 02 | Impulse and Collsion · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
69	26	Mech2__Ch2_26_Variable Mass System Illustrations	00:23:09
SOLVED EXAMPLES			
70	27	Mech2__Ch2_1_Solved Example Centre of Mass	00:17:50
71	28	Mech2__Ch2_2_Solved Example Centre of Mass	00:15:31
72	29	Mech2__Ch2_3_Solved Example Centre of Mass	00:12:37
73	30	Mech2__Ch2_4_Solved Example Centre of Mass	00:22:31
74	31	Mech2__Ch2_5_Solved Example Centre of Mass	00:12:14
75	32	Mech2__Ch2_6_Solved Example Centre of Mass	00:15:27
76	33	Mech2__Ch2_7_Solved Example Centre of Mass	00:11:27
77	34	Mech2__Ch2_8_Solved Example Centre of Mass	00:13:39
78	35	Mech2__Ch2_9_Solved Example Centre of Mass	00:13:13
79	36	Mech2__Ch2_10_Solved Example Centre of Mass	00:09:00
80	37	Mech2__Ch2_11_Solved Example Centre of Mass	00:13:35
81	38	Mech2__Ch2_12_Solved Example Centre of Mass	00:14:11
82	39	Mech2__Ch2_13_Solved Example Centre of Mass	00:10:00
83	40	Mech2__Ch2_14_Solved Example Centre of Mass	00:08:30
84	41	Mech2__Ch2_15_Solved Example Centre of Mass	00:11:21
85	42	Mech2__Ch2_16_Solved Example Centre of Mass	00:09:27
		CHAPTER 02 TOTAL · 42 lectures	13:57:52

CHAPTER 03 | Rigid Body Dynamics Part 1

#	CH. #	LECTURE / TOPIC	DURATION
86	1	Mech2__Ch3_1_Basics of Rotational Motion Defining Rigid body	00:25:42
87	2	Mech2__Ch3_2_Basics of Rotational Motion Defining Rigid body	00:23:16
88	3	Mech2__Ch3_3_Basics of Rotational Motion Defining Rigid body	00:19:49
89	4	Mech2__Ch3_4_Types of Rotational Motion	00:18:02
90	5	Mech2__Ch3_5_Types of Rotational Motion	00:27:37
91	6	Mech2__Ch3_6_Rigid Body Dynamics Instantaneous Axis Of Rotation	00:25:49
92	7	Mech2__Ch3_7_Rigid Body Dynamics Instantaneous Axis Of Rotation	00:20:08
93	8	Mech2__Ch3_8_Rigid Body Dynamics Rolling Motion	00:19:54
94	9	Mech2__Ch3_9_Rigid Body Dynamics Rolling Motion	00:20:13
95	10	Mech2__Ch3_10_Rigid Body Dynamics Rolling Motion As Pure Rotation about Point of Contact	00:19:31
96	11	Mech2__Ch3_11_Rigid Body Dynamics Rolling On Curved Surface	00:20:48
97	12	Mech2__Ch3_12_Rigid Body Dynamics Contraint Relations in case of Rotation and translation Combined	00:22:59
98	13	Mech2__Ch3_13_Rigid Body Dynamics Contraint Relations in case of Rotation and translation Combined	00:07:37
99	14	Mech2__Ch3_14_Rigid Body Dynamics Contraint Due to Rod having Translational and Rotational motion combined	00:11:04
100	15	Mech2__Ch3_15_Moment of Inertia	00:22:31
101	16	Mech2__Ch3_16_Moment of Inertia	00:25:38
102	17	Mech2__Ch3_17_Moment of Inertia	00:20:10
103	18	Mech2__Ch3_18_Radius of Gyration	00:17:47
104	19	Mech2__Ch3_19_Moment of Inertia About a General Axis of Rotation	00:16:20
105	20	Mech2__Ch3_20_Moment of Inertia About a General Axis of Rotation	00:13:09

CHAPTER 03 | Rigid Body Dynamics Part 1 · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
106	21	Mech2__Ch3_21_Moment of Inertia About a General Axis of Rotation	00:20:09
107	22	Mech2__Ch3_22_Moment of Inertia About a General Axis of Rotation Illustrations	00:19:44
108	23	Mech2__Ch3_23_Moment of Inertia About a General Axis of Rotation Illustrations	00:16:37
109	24	Mech2__Ch3_24_Concept of Torque and Rotational Equillibrium	00:32:35
110	25	Mech2__Ch3_25_Concept of Torque and Rotational Equillibrium	00:13:20
111	26	Mech2__Ch3_26_Concept of Torque and Rotational Equillibrium Application of Concepts	00:24:32
112	27	Mech2__Ch3_27_Concept of Torque and Rotational Equillibrium Application of Concepts	00:18:15
113	28	Mech2__Ch3_28_Concept of Torque and Rotational Equillibrium Application of Concepts	00:18:32
114	29	Mech2__Ch3_29_Concept of Torque and Rotational Equillibrium Application of Concepts	00:20:16
115	30	Mech2__Ch3_30_Concept of Torque and Rotational Equillibrium Application of Concepts	00:17:19
116	31	Mech2__Ch3_31_Concept of Torque and Rotational Equillibrium Application of Concepts	00:10:40
117	32	Mech2__Ch3_32_Torque Toppling and Shifting of Normal Reaction	00:21:29
118	33	Mech2__Ch3_33_Torque Toppling and Shifting of Normal Reaction	00:21:32
119	34	Mech2__Ch3_34_Torque Toppling and Shifting of Normal Reaction illustration	00:18:06
120	35	Mech2__Ch3_35_Torque Toppling and Shifting of Normal Reaction illustration	00:17:10
121	36	Mech2__Ch3_36_Newton's Second Law for Rotational Motion	00:28:08
122	37	Mech2__Ch3_37_Newton's Second Law for Rotational Motion	00:19:54
123	38	Mech2__Ch3_38_Newton's Second Law for Rotational Motion	00:27:33
SOLVED EXAMPLES			
124	39	Mech2__Ch3_1_Solved Example Rigid Body Dynamics	00:07:47

CHAPTER 03 | Rigid Body Dynamics Part 1 · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
125	40	Mech2__Ch3_2_Solved Example Rigid Body Dynamics	00:12:51
126	41	Mech2__Ch3_3_Solved Example Rigid Body Dynamics	00:10:21
127	42	Mech2__Ch3_4_Solved Example Rigid Body Dynamics	00:09:24
128	43	Mech2__Ch3_5_Solved Example Rigid Body Dynamics	00:11:44
129	44	Mech2__Ch3_6_Solved Example Rigid Body Dynamics	00:11:14
130	45	Mech2__Ch3_7_Solved Example Rigid Body Dynamics	00:13:19
131	46	Mech2__Ch3_8_Solved Example Rigid Body Dynamics	00:14:45
132	47	Mech2__Ch3_9_Solved Example Rigid Body Dynamics	00:07:44
133	48	Mech2__Ch3_10_Solved Example Rigid Body Dynamics	00:12:29
134	49	Mech2__Ch3_11_Solved Example Rigid Body Dynamics	00:10:01
135	50	Mech2__Ch3_12_Solved Example Rigid Body Dynamics	00:14:29
		CHAPTER 03 TOTAL · 50 lectures	**15:00:03**

CHAPTER 04 | Rigid Body Dynamics Part 2

#	CH. #	LECTURE / TOPIC	DURATION
136	1	Mech2__Ch4_1_Rigid Body Dynamics Angular Mometum of A Particle	00:23:37
137	2	Mech2__Ch4_2_Rigid Body Dynamics Angular Mometum of A Particle	00:15:53
138	3	Mech2__Ch4_3_Rigid Body Dynamics Angular Mometum of a System of Particles	00:13:23
139	4	Mech2__Ch4_4_Rigid Body Dynamics Angular Mometum of a System of Particles	00:15:17

CHAPTER 04 | Rigid Body Dynamics Part 2 · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
140	5	Mech2__Ch4_5_Rigid Body Dynamics Angular Mometum of a Rigid body Due to Translation and Rotation both	00:21:41
141	6	Mech2__Ch4_6_Rigid Body Dynamics Angular Mometum of a Rigid body Due to Translation and Rotation both	00:12:25
142	7	Mech2__Ch4_7_Rigid Body Dynamics Angular Impulse Momentum Theorem	00:13:10
143	8	Mech2__Ch4_8_Rigid Body Dynamics Laws of Conservation of Angular Momentum	00:23:03
144	9	Mech2__Ch4_9_Rigid Body Dynamics Laws of Conservation of Angular Momentum Illustrations	00:25:34
145	10	Mech2__Ch4_10_Rigid Body Dynamics Laws of Conservation of Angular Momentum Illustrations	00:30:40
146	11	Mech2__Ch4_11_Rigid Body Dynamics Combined Translation and Rotation	00:28:15
147	12	Mech2__Ch4_12_Rigid Body Dynamics Combined Translation and Rotation	00:16:58
148	13	Mech2__Ch4_13_Rigid Body Dynamics Combined Translation and Rotation	00:23:37
149	14	Mech2__Ch4_14_Rigid Body Dynamics Combined Translation and Rotation	00:24:00
150	15	Mech2__Ch4_15_Rigid Body Dynamics Combined Translation and Rotation	00:25:06
151	16	Mech2__Ch4_16_Rolling Dynamics of Rolling Motion without net External Force	00:25:42
152	17	Mech2__Ch4_17_Rolling Dynamics of Rolling Motion without net External Force	00:21:25
153	18	Mech2__Ch4_18_Rolling Dynamics of Rolling Motion Under net External Force	00:28:56
154	19	Mech2__Ch4_19_Rolling Dynamics of Rolling Motion Under net External Force	00:28:47
155	20	Mech2__Ch4_20_Rolling Dynamics of Rolling Motion Under net External Force	00:33:15
156	21	Mech2__Ch4_21_Rolling Dynamics of Rolling Motion Under net External Force	00:24:07
157	22	Mech2__Ch4_22_Rigid body Dynamics Kinetic Energy of Rigid Body	00:18:18
158	23	Mech2__Ch4_23_Rigid body Dynamics Kinetic Energy of Rigid Body Illustrations	00:24:02
159	24	Mech2__Ch4_24_Rigid body Dynamics Kinetic Energy of Rigid Body Illustrations	00:20:31

CHAPTER 04 | Rigid Body Dynamics Part 2 · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
160	25	Mech2__Ch4_25_Rigid body Dynamics Kinetic Energy of a Body Rolling on a Fixed Surfaces	00:12:36
161	26	Mech2__Ch4_26_Rigid body Dynamics Kinetic Energy of a Body Rolling on a Fixed Surfaces Illustrations	00:09:39
162	27	Mech2__Ch4_27_Rigid body Dynamics Rotational Work And Power	00:16:36
163	28	Mech2__Ch4_28_Rigid body Dynamics Work Energy Theorem For Roatational Motion	00:32:10
164	29	Mech2__Ch4_29_Rigid body Dynamics Conservation of Mechanical Energy	00:11:53
165	30	Mech2__Ch4_30_Rigid body Dynamics Conservation of Mechanical Energy Illustrations	00:24:45
166	31	Mech2__Ch4_31_Rigid body Dynamics Conservation of Mechanical Energy Illustrations	00:25:41
167	32	Mech2__Ch4_32_Rigid body Dynamics Rolling of A Body on An inclined plane	00:27:41
168	33	Mech2__Ch4_33_Rigid body Dynamics Rolling of A Body on An inclined plane	00:21:38
169	34	Mech2__Ch4_34_Rigid body Dynamics Rolling of A Body on An inclined plane Illustrations	00:22:56
170	35	Mech2__Ch4_35_Rigid body Dynamics Rolling of A Body on An inclined plane Illustrations	00:19:41
171	36	Mech2__Ch4_36_Rigid body Dynamics Angular Impulse	00:30:13
172	37	Mech2__Ch4_37_Rigid body Dynamics Angular Impulse Illustrations	00:20:34
173	38	Mech2__Ch4_38_Rigid body Dynamics Angular Impulse Illustrations	00:27:09
174	39	Mech2__Ch4_39_Rigid body Dynamics Collision of Rigid Body	00:30:17
175	40	Mech2__Ch4_40_Rigid body Dynamics Collision of Rigid Body	00:16:49
176	41	Mech2__Ch4_41_Rigid body Dynamics Collision of Rigid Body	00:24:57
177	42	Mech2__Ch4_42_Rigid body Dynamics Collision of a Rod and Particle Illustrations	00:21:42
178	43	Mech2__Ch4_43_Rigid body Dynamics Collision of a Rod and Particle	00:23:51
179	44	Mech2__Ch4_44_Rigid body Dynamics Collision of a Rod and Particle	00:14:57

CHAPTER 04 | Rigid Body Dynamics Part 2 · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
180	45	Mech2__Ch4_45_Rigid body Dynamics Collision of a Rod and Particle	00:13:05
181	46	Mech2__Ch4_46_Rigid body Dynamics Collision of a Rod and Particle illustrations	00:18:36
182	47	Mech2__Ch4_47_Rigid body Dynamics Collision of a Rod and Particle illustrations	00:27:43
183	48	Mech2__Ch4_48_Rigid body Dynamics Collision of a Rod and Particle illustrations	00:25:15
SOLVED EXAMPLES			
184	49	Mech2__Ch4_1_Rigid Body Dynamics Solved Example	00:14:54
185	50	Mech2__Ch4_2_Rigid Body Dynamics Solved Example	00:27:01
186	51	Mech2__Ch4_3_Rigid Body Dynamics Solved Example	00:18:03
187	52	Mech2__Ch4_4_Rigid Body Dynamics Solved Example	00:13:49
188	53	Mech2__Ch4_5_Rigid Body Dynamics Solved Example	00:11:22
189	54	Mech2__Ch4_6_Rigid Body Dynamics Solved Example	00:21:32
190	55	Mech2__Ch4_7_Rigid Body Dynamics Solved Example	00:11:17
191	56	Mech2__Ch4_8_Rigid Body Dynamics Solved Example	00:10:45
192	57	Mech2__Ch4_9_Rigid Body Dynamics Solved Example	00:12:04
193	58	Mech2__Ch4_10_Rigid Body Dynamics Solved Example	00:23:17
194	59	Mech2__Ch4_11_Rigid Body Dynamics Solved Example	00:21:24
195	60	Mech2__Ch4_12_Rigid Body Dynamics Solved Example	00:12:59
196	61	Mech2__Ch4_13_Rigid Body Dynamics Solved Example	00:24:52
197	62	Mech2__Ch4_14_Rigid Body Dynamics Solved Example	00:15:45

CHAPTER 04 | Rigid Body Dynamics Part 2 · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
198	63	Mech2__Ch4_15_Rigid Body Dynamics Solved Example	00:20:40
		CHAPTER 04 TOTAL · 63 lectures	**21:57:50**

CHAPTER 05 | Gravitation

#	CH. #	LECTURE / TOPIC	DURATION
199	1	Mech2__Ch5_1_Gravitation Kepler's Laws of Planetary Motion	00:29:30
200	2	Mech2__Ch5_2_Gravitation Kepler's Laws of Planetary Motion	00:14:09
201	3	Mech2__Ch5_3_Newton's Law of Universal Gravitation	00:24:39
202	4	Mech2__Ch5_4_Newton's Law of Universal Gravitation	00:27:05
203	5	Mech2__Ch5_5_Newton's Law of Universal Gravitation Illustrations	00:19:22
204	6	Mech2__Ch5_6_Gravitational force between an Extended object and a Particle	00:08:18
205	7	Mech2__Ch5_7_Gravitational Force between Uniform Sphere or Spherical Shell and Particle	00:11:34
206	8	Mech2__Ch5_8_Gravitational Field	00:30:41
207	9	Mech2__Ch5_9_Gravitational Field	00:18:29
208	10	Mech2__Ch5_10_Gravitational Field due to Uniform Circular Ring at a Point on Its Axis	00:21:49
209	11	Mech2__Ch5_11_Variation of Acceleration Due to Gravity	00:28:48
210	12	Mech2__Ch5_12_Variation of Acceleration Due to Gravity Illustrations	00:20:25
211	13	Mech2__Ch5_13_Variation of Acceleration Due to Gravity Illustrations	00:32:56
212	14	Mech2__Ch5_14_Gravitational Potential	00:33:32

CHAPTER 05 | Gravitation · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
213	15	Mech2__Ch5_15_Variation of Acceleration Due to Gravity	00:22:43
214	16	Mech2__Ch5_16_Gravitational Potential Energy	00:22:11
215	17	Mech2__Ch5_17_Gravitational Potential Energy	00:26:29
216	18	Mech2__Ch5_18_Gravitational Potential Energy of Particle and Earth system	00:19:50
217	19	Mech2__Ch5_19_Gravitation Escape Speed	00:28:28
218	20	Mech2__Ch5_20_Gravitation Artificial Satellite	00:27:42
219	21	Mech2__Ch5_21_Gravitation Artificial Satellite illustration	00:16:20
220	22	Mech2__Ch5_22_Gravitation Artificial Satellite illustration	00:16:59
221	23	Mech2__Ch5_23_Gravitation Geostationery and Polar satellite	00:30:43
SOLVED EXAMPLES			
222	24	Mech2__Ch5_1_Gravitationa Solved exampls	00:10:12
223	25	Mech2__Ch5_2_Gravitationa Solved exampls	00:12:21
224	26	Mech2__Ch5_3_Gravitationa Solved exampls	00:11:45
225	27	Mech2__Ch5_4_Gravitationa Solved exampls	00:10:27
226	28	Mech2__Ch5_5_Gravitationa Solved exampls	00:11:22
227	29	Mech2__Ch5_6_Gravitationa Solved exampls	00:05:00
228	30	Mech2__Ch5_7_Gravitationa Solved exampls	00:07:48
229	31	Mech2__Ch5_8_Gravitationa Solved exampls	00:07:15
230	32	Mech2__Ch5_9_Gravitationa Solved exampls	00:07:41
231	33	Mech2__Ch5_10_Gravitationa Solved exampls	00:09:18

CHAPTER 05 | Gravitation · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
232	34	Mech2__Ch5_11_Gravitationa Solved exampls	00:07:11
233	35	Mech2__Ch5_12_Gravitationa Solved exampls	00:08:49
234	36	Mech2__Ch5_13_Gravitationa Solved exampls	00:16:43
		CHAPTER 05 TOTAL · 36 lectures	**10:58:34**

CHAPTER 06 | Fluid Mechanics

#	CH. #	LECTURE / TOPIC	DURATION
235	1	Mech2__Ch6_1_Hydrostatics pressure	00:18:41
236	2	Mech2__Ch6_2_Properties of Pressure	00:39:52
237	3	Mech2__Ch6_3_Properties of Pressure illustration	00:31:39
238	4	Mech2__Ch6_4_Pascal's Law	00:23:54
239	5	Mech2__Ch6_5_Measurements of Pressure	00:21:36
240	6	Mech2__Ch6_6_Measurements of Pressure illustrations	00:41:41
241	7	Mech2__Ch6_7_Pressure diagram and force on boundaries	00:13:53
242	8	Mech2__Ch6_8_Pressure diagram and force on boundaries	00:32:41
243	9	Mech2__Ch6_9_Force on immersed liquid	00:20:58
244	10	Mech2__Ch6_10_Force on immersed liquid inclined	00:27:10
245	11	Mech2__Ch6_11_Force on inclined plane surface immersed in a liquid	00:20:30
246	12	Mech2__Ch6_12_Force on inclined plane surface immersed in a liquid	00:22:37

MECHANICS II

CHAPTER 06 | Fluid Mechanics · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
247	13	Mech2__Ch6_13_Force on inclined plane surface immersed in a liquid	00:28:17
248	14	Mech2__Ch6_14_Fluid uniformly accelerating Motion	00:13:27
249	15	Mech2__Ch6_15_Fluid uniformly accelerating Motion Liquid subjected to constant horizontal acceleration	00:24:45
250	16	Mech2__Ch6_16_Fluid uniformly accelerating Motion Analysis of pressure in horizontal Accelerated liquid	00:25:10
251	17	Mech2__Ch6_17_Modified Manometric Tube	00:18:17
252	18	Mech2__Ch6_18_Fluid in Uniformly Accelerating Motion	00:36:27
253	19	Mech2__Ch6_19_The Fluid in Rotation	00:37:01
254	20	Mech2__Ch6_20_Finding pressure difference in fluid in rotating tube	00:30:00
255	21	Mech2__Ch6_21_Archimedes Principle	00:28:21
256	22	Mech2__Ch6_22_Archimedes Principle illustrations	00:23:45
257	23	Mech2__Ch6_23_Boyancy Floatation 1	00:25:11
258	24	Mech2__Ch6_24_Boyancy Floatation 2	00:37:52
259	25	Mech2__Ch6_25_Buoyancy Floatation object floating in two layered Liquids	00:34:35
260	26	Mech2__Ch6_26_Buoyant force in Accelerating Fluid	00:23:12
261	27	Mech2__Ch6_27_Buoyant force in Accelerating Fluid	00:22:54
262	28	Mech2__Ch6_28_Hydronamics	00:22:21
263	29	Mech2__Ch6_29_Hydronamics Continuity Equation	00:28:33
264	30	Mech2__Ch6_30_Bernoulli Equation	00:15:27
265	31	Mech2__Ch6_31_Bernoulli Equation	00:21:06
266	32	Mech2__Ch6_32_Bernoulli Equation Illustrations	00:33:07

CHAPTER 06 | Fluid Mechanics · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
267	33	Mech2__Ch6_33_Bernoulli Equation Illustrations	00:25:53
268	34	Mech2__Ch6_34_Hydrodynamics Applications Bernoulli’s Equation	00:15:05
269	35	Mech2__Ch6_35_Hydrodynamics Applications Bernoulli's Equation	00:20:05
270	36	Mech2__Ch6_36_Hydrodynamics Velocity of Efflux	00:18:51
271	37	Mech2__Ch6_37_Hydrodynamics Force of Reaction due to ejection of liquid	00:13:04
272	38	Mech2__Ch6_38_Hydrodynamics Force of Reaction due to ejection of liquid illustrations	00:13:16
SOLVED EXAMPLES			
273	39	Mech2__Ch6_1_Solved Example Concept Discussed-The hydrostatic force on the plane surface	00:08:53
274	40	Mech2__Ch6_2_Solved Example Concept Discussed-The hydrostatic force on the Curved surface	00:10:07
275	41	Mech2__Ch6_3_Solved Example Concept Discussed-The hydrostatic force on the Curved surface	00:12:56
276	42	Mech2__Ch6_4_Solved Example Concept Discussed- Fluid in Acceleration	00:16:03
277	43	Mech2__Ch6_5_Solved Example Concept Discussed- Fluid in Rotation	00:14:26
278	44	Mech2__Ch6_6_Solved Example Concept Discussed- Fluid in Rotation	00:13:45
279	45	Mech2__Ch6_7_Solved Example Concept Discussed- Buoyancy and Floatation	00:08:48
280	46	Mech2__Ch6_8_Solved Example Concept Discussed- Buoyancy and Floatation	00:16:13
281	47	Mech2__Ch6_9_Solved Example Concept Discussed- Buoyancy and Floatation	00:12:03
282	48	Mech2__Ch6_10_Solved Example Concept Discussed- Buoyancy and Floatation	00:08:36
283	49	Mech2__Ch6_11_Solved Example Concept Discussed- Buoyancy and Floatation	00:10:05
284	50	Mech2__Ch6_12_Solved Example Concept Discussed- Bernoulli's Equation and continuity of equation	00:12:40
285	51	Mech2__Ch6_13_Solved Example Concept Discussed- Buoyancy and Floatation	00:13:41

CHAPTER 06 | Fluid Mechanics · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
286	52	Mech2__Ch6_14_Solved Example Concept Discussed- Velocity of efflux	00:21:40
287	53	Mech2__Ch6_15_Solved Example Concept Discussed- Velocity of efflux and thrust force applied by liquid jet	00:08:26
288	54	Mech2__Ch6_16_Solved Example Concept Discussed- Velocity of efflux and thrust force applied by liquid jet	00:21:38
		CHAPTER 06 TOTAL · 54 lectures	**19:21:14**

CHAPTER 07 | Elasticity

#	CH. #	LECTURE / TOPIC	DURATION
289	1	Mech2__Ch7_1_Elastic Properties of Solids	00:28:11
290	2	Mech2__Ch7_2_Elastic Properties of Solids Illustrations	00:09:26
291	3	Mech2__Ch7_3_Volumetric and Shear Stress	00:15:26
292	4	Mech2__Ch7_4_Volumetric and Shear Stress Illustrations	00:24:01
293	5	Mech2__Ch7_5_Modulus of Elasticity and Hooke's law	00:18:42
294	6	Mech2__Ch7_6_Modulus of Elasticity and Hooke's law Illustrations	00:26:41
295	7	Mech2__Ch7_7_Modulus of Elasticity and Hooke's law Illustrations	00:36:18
296	8	Mech2__Ch7_8_Breaking of a Wire or a Rod	00:14:09
297	9	Mech2__Ch7_9_Analogy of Rod as a Spring	00:14:42
298	10	Mech2__Ch7_10_Analogy of Rod as a Spring illustrations	00:21:15
299	11	Mech2__Ch7_11_Analogy of Rod as a Spring illustrations	00:27:03
300	12	Mech2__Ch7_12_Shear Modulus of Elasticity	00:15:01

CHAPTER 07 | Elasticity · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
301	13	Mech2__Ch7_13_Bulk Modulus of Elasticity	00:20:13
302	14	Mech2__Ch7_14_Bulk Modulus of Elasticity Illustrations	00:11:27
303	15	Mech2__Ch7_15_Elastic Potential Energy	00:20:11
304	16	Mech2__Ch7_16_Elastic Potential Energy Illustrations	00:22:56
305	17	Mech2__Ch7_17_Stress-Strain Curve	00:24:17
306	18	Mech2__Ch7_18_Elastic Hysteresis	00:24:27
SOLVED EXAMPLES			
307	19	Mech2__Ch7_1_Solved Example Longitudinal Stress Strain Young's Modulus of Elasticity	00:12:59
308	20	Mech2__Ch7_2_Solved Example Longitudinal Stress Strain Young's Modulus of Elasticity	00:05:49
309	21	Mech2__Ch7_3_Solved Example Finding a normal Stress	00:07:48
310	22	Mech2__Ch7_4_Solved Example Elastic Energy Stored in an Object	00:07:22
311	23	Mech2__Ch7_5_Solved Example Longitudinal Stress Strain Young's Modulus of Elasticity	00:13:03
312	24	Mech2__Ch7_6_Solved Example Analyzing the Breaking or Rupture Strength of a Rotating Rod	00:09:00
313	25	Mech2__Ch7_7_Solved Example Longitudinal Stress Strain Young's Modulus of Elasticity	00:10:16
314	26	Mech2__Ch7_8_Solved Example Analyzing the Breaking or Rupture Strength of a Circular ring	00:13:41
315	27	Mech2__Ch7_9_Solved Example Elastic potential Energy	00:06:05
		CHAPTER 07 TOTAL · 27 lectures	07:40:29

CHAPTER 08 | Surface Tension & Viscosity

#	CH. #	LECTURE / TOPIC	DURATION
316	1	Mech2__Ch8_1_Surface Tension	00:29:00
317	2	Mech2__Ch8_2_Types of molecular forces and angle of contact	00:18:24
318	3	Mech2__Ch8_3_Determination of Coefficient of Surface Tension	00:15:15
319	4	Mech2__Ch8_4_Illustration Based on Force Of Surface Tension	00:21:44
320	5	Mech2__Ch8_5_Surface Energy	00:24:12
321	6	Mech2__Ch8_6_Surface Energy Application	00:19:03
322	7	Mech2__Ch8_7_Shape of Liquids Meniscus	00:14:27
323	8	Mech2__Ch8_8_Excess Pressure inside a curved surface	00:13:21
324	9	Mech2__Ch8_9_Excess Pressure inside an air Bubble-drop inside liquid	00:15:41
325	10	Mech2__Ch8_10_Excess Pressure inside Soap bubble	00:11:08
326	11	Mech2__Ch8_11_Illustrations on Excess Pressure	00:22:11
327	12	Mech2__Ch8_12_Excess pressure across curved surface having different radius of curvature	00:18:30
328	13	Mech2__Ch8_13_Liquid drop between two plates	00:10:51
329	14	Mech2__Ch8_14_Capillarity	00:36:28
330	15	Mech2__Ch8_15_Capillarity Rise of liquid in a Capillarity Tube of Insufficient Length	00:19:10
331	16	Mech2__Ch8_16_Capillarity Rise of liquid Annulus Capillary tube	00:10:20
332	17	Mech2__Ch8_17_Capillary Rise between two parallel plates dipping in a liquid	00:15:42
333	18	Mech2__Ch8_18_Capillary Rise in a Conical Capillary Tube	00:11:07
334	19	Mech2__Ch8_19_Viscosity	00:20:29
335	20	Mech2__Ch8_20_Measurements of Viscosity	00:14:48

CHAPTER 08 | Surface Tension & Viscosity · CONTINUED

#	CH. #	LECTURE / TOPIC	DURATION
336	21	Mech2__Ch8_21_ Viscosity Illustrations	00:29:57
337	22	Mech2__Ch8_22_ Reynolds Number	00:27:26
338	23	Mech2__Ch8_23_ Poiseuille's Formula for flow of Liquid Through a Narrow Tube	00:36:16
339	24	Mech2__Ch8_24_ Viscosity Stokes Law and Terminal Velocity	00:25:40
340	25	Mech2__Ch8_25_ Viscosity Stokes Law and Terminal Velocity Illustrations	00:19:27
SOLVED EXAMPLES			
341	26	Mech2__Ch8_1_Solved exampls Properties of real fluids	00:09:12
342	27	Mech2__Ch8_2_Solved exampls Properties of real fluids	00:08:28
343	28	Mech2__Ch8_3_Solved exampls Properties of real fluids	00:19:54
344	29	Mech2__Ch8_4_Solved exampls Properties of real fluids	00:10:02
345	30	Mech2__Ch8_5_Solved exampls Properties of real fluids	00:06:50
346	31	Mech2__Ch8_6_Solved exampls Properties of real fluids	00:14:19
347	32	Mech2__Ch8_7_Solved exampls Properties of real fluids	00:11:20
348	33	Mech2__Ch8_8_Solved exampls Properties of real fluids	00:10:38
349	34	Mech2__Ch8_9_Solved exampls Properties of real fluids	00:10:53
		CHAPTER 08 TOTAL · 34 lectures	10:02:13