**General Physics-I: Online conceptual physics learning materials**

***All the videos have subtitle you can see on screen OR there is option on YouTube to turn on subtitle.***

**Chapter-9**

***Linear momentum and collision:***

* ***Lectures:***

Lectures will cover all the topics of this chapter.

MIT Lecture: Prof. Walter Lewin

<https://www.youtube.com/watch?v=0DR8emfSsF0>

<https://www.youtube.com/watch?v=SUYnS7rj33w>

Lectures: Prof. Julius Sumner Miller

<https://www.youtube.com/watch?v=TyvX4-Ouovg&index=4&list=PLjzW1w9hKBnz2i90rRoZDvgfTeRe3cDyJ>

<https://www.youtube.com/watch?v=4lC2bzXZq7I&index=5&list=PLjzW1w9hKBnz2i90rRoZDvgfTeRe3cDyJ>

* ***Conceptual short videos associated with the topics of the chapter:***

Physics course:

<https://www.youtube.com/watch?v=AJxw3gv5jjE>

<https://www.youtube.com/watch?v=NwETLrKmG4g>

<https://www.youtube.com/watch?v=L0AMQ6kRNMA> (Rocket propulsion)

* ***Feynman Lecture: Laws of Conservation (If anybody is interested)***

<https://www.youtube.com/watch?v=ZDI7D6H0N7U>

**Chapter-10**

* ***Rotation of a rigid object about a fixed axis:***

MIT lecture:

<http://www.youtube.com/watch?v=9A1Zb8109fg>

Yale Univ. Lecture:

<http://www.youtube.com/watch?v=mx2P1_M-7UA>

Short video- conceptual:

<http://www.youtube.com/watch?v=PlopvLE3QrE>

<http://www.youtube.com/watch?v=qPUmcE45U7Y>

Moment of inertia:

<http://www.youtube.com/watch?v=cB8GNQuyMPc>

Torque:

<http://www.youtube.com/watch?v=QhuJn8YBtmg>

<http://www.youtube.com/watch?v=TtzAT4BYcgw>

Rolling motion of rigid object:

<http://www.youtube.com/watch?v=U2pll_jYrro>

**Chapter-11**

* ***Angular Momentum:***

***Lectures:***

Mechanical Universe: California Institute of Technology (CALTECH)

<http://www.youtube.com/watch?v=_uO1ni_O1c8>

<http://www.youtube.com/watch?v=iiaNkYiDPf8>

MIT- Lectures

<http://www.youtube.com/watch?v=LokwTnLBEQQ>

<http://www.youtube.com/watch?v=CvKbFtczyos>

Short videos:

<http://www.youtube.com/watch?v=8I4ii1xEeG0>

Angular momentum in quantum world:

<http://www.youtube.com/watch?v=NwbvTa2xV9k>

Gyroscope motion:

<http://www.youtube.com/watch?v=cquvA_IpEsA>

<http://www.youtube.com/watch?v=GyNwXICXO8M>

Short videos of chapter 10 will cover also chapter 11

* ***One documentary of how people use the animal model for getting motion. If anyone is interested to see***

***Please go through the link below:***

***Biomimetics:*** *Motion Technology of the Natural World*

<http://www.youtube.com/watch?v=mnD6lkavNdU>