COURSE CODE: ENGMEC2

COURSE TITLE: Dynamics of Rigid Bodies

DEPARTMENT: Civil Engineering Department

TEXTBOOK:

1. Engineering Mechanics: DYNAMICS By: J.L. Meriam, L.G. Kraige.

READING LIST:

1. Principles of Engineering Mechanics II (Dynamics), By: Yolanda Brondial and Arsenio Sy
2. Vector Mechanics for Engineers (7th Edition) By: Ferdinand Bee and Russell Johnston
3. Engineering Mechanics: Dynamics By: Braja M. Das
4. Engineering Mechanics: Statics and Dynamics (4th Edition) By: Irving Shames
5. Engineering Mechanics: Statics and Dynamics (7h Edition) By: Hibbeler, R.C.
6. Engineering Mechanics-Self Assessment Tutorials: http://www.lboro.ac.uk/faculty/eng/engtlsc/Eng_Mech/tutorials/tut_index.htm

REQUISITE EQUIPMENT/MATERIALS FOR THE COURSE:

1. Engineering Mechanics-Self Assessment Tutorials: http://www.lboro.ac.uk/faculty/eng/engtlsc/Eng_Mech/tutorials/tut_index.htm
2. Rectilinear Motion with Constant Acceleration: https://www.youtube.com/watch?v=B8P8bvDpvA4&list=PLLbvVfERDon1xk3wGaYfXSmGa1u83mGn-&index=4
3. Projectile Motion: https://www.youtube.com/watch?v=pb0dEusDKhA&list=PLLbvVfERDon1xk3wGaYfXSmGa1u83mGn-&index=7
4. Curvilinear Motion – Tangential and Normal components: https://www.youtube.com/watch?v=Zfy3FYZrsWo&list=PLLbvVfERDon1xk3wGaYfXSmGa1u83mGn-&index=8
5. Rigid body translation: https://www.youtube.com/watch?v=QuDoh_1HyL4&list=PLLbvVfERDon1xk3wGaYfXSmGa1u83mGn-&index=23
6. Rigid body rotation about a fixed axis: https://www.youtube.com/watch?v=bR3fZ-goD2Q&list=PLLbvVfERDon1xk3wGaYfXSmGa1u83mGn-&index=24
7. Instantaneous center: https://www.youtube.com/watch?v=EwywO8TuEi8&list=PLLbvVfERDon1xk3wGaYfXSmGa1u83mGn-&index=26