

Dr. Yiheng Wang's Lectures in Statics

Playlist: <https://www.youtube.com/playlist?list=PLLbvVfERDon3mb73rkKleFA8Q7yt-7tku>

Video No.	Topic	Chapt/Section in Meriam & Kraige	Link
01	Overview of Engineering Mechanics	Ch 1	https://youtu.be/xJAVt95YIjo
02	Fundamental Concepts	Ch 1	https://youtu.be/1J-bKOIVQFk
03	Newton's Fundamental Laws	Ch 1	https://youtu.be/m7AMVje9YxA
04	Vector Operation, Parallelogram Law and Triangle Rule	Ch 1	https://youtu.be/aKO3LE56cyg
05	Cartesian Vectors and Operation	Ch 1	https://youtu.be/35_kHO407tY
06	Position Vector and Force Vector	Ch 11	https://youtu.be/fruJRwyvAmc
07	Dot Product of Cartesian Vectors	C/7	https://youtu.be/X4Y1vTuI5FE
08	Free body diagram	3/2	https://youtu.be/XfxPeLxTOjM
09	Particle Equilibrium	3/3	https://youtu.be/sp6MaBmo-Ks
10	Moment of a Force	2/4	https://youtu.be/yHfljOFL30
11	Moment Calculation Scalar Formulation	2/4	https://youtu.be/7adf8tpLsJc
12	Moment Calculation Vector Formulation	2/4	https://youtu.be/cGRL93RZfll
13	Principle of Moments	2/4	https://youtu.be/7-BtuBniX5I
14	Moment about a Specified Axis	2/4	https://youtu.be/_NIhvi2B0FE
15	Moment of a Couple	2/5	https://youtu.be/58rXT75MxIE
16	Simplification of Force and Moment System	2/6	https://youtu.be/mKhjStOXIF4
17	Reduction of a Distributed Load	5/6	https://youtu.be/XY3brvq9QPk
18	Rigid Body Equilibrium	3/3	https://youtu.be/ePRtxRQ9F3I
19	Rigid Body Equilibrium -- 2D Supports	3/3	https://youtu.be/D_7K10gwzfw
20	Two-Force and Three-Force Members	3/2, 4/1	https://youtu.be/4zsT4f0Xs38
21	Rigid Body Equilibrium -- 3D Supports	3/4	https://youtu.be/2wv9QezfTK8
22	Simple Truss Analysis Introduction	4/1, 4/2	https://youtu.be/VFdiF4235Js
23	Simple Truss Analysis -- Method of Joints	4/3	https://youtu.be/AOqgSLB9Hmg
24	Simple Truss Analysis -- Method of Sections	4/4	https://youtu.be/Au4zcJlfBA4
25	Frames and Machines	4/6	https://youtu.be/_TC-BlgHOsc
26	Internal Forces – Introduction (Beams)	5/7	https://youtu.be/M-6huk7C5nE
27	Shear Force and Bending Moment Functions and Diagrams	5/7	https://youtu.be/iU9667HKnP0
28	Dry Friction – Introduction	6/3	https://youtu.be/Wl_2yJI_4a8
29	Dry Friction – Examples	6/3	https://youtu.be/DRuB6kARgcs
30	None		
31	Center of Gravity	5/2	https://youtu.be/zfVqRhmvads
32	Centroid of an Area	5/3	https://youtu.be/_NR7eGOq5sQ
33	Centroid of Composite Areas	5/4	https://youtu.be/Q0_OUmL7kA
34	Moment of Inertia of Mass and Area	A/2	https://youtu.be/M0zixPoeNBQ
35	Area Moment of Inertia -- Calculation	A/2	https://youtu.be/mv78R-irghc
36	Area Moment of Inertia -- Composite Area	A/3	https://youtu.be/nozZHJUJdk