

Mechanics Physics 3200 Fall 2024 Section: 8064 TY2

Instructor: Raymond Tung

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Office & Hours: 1415NE New Ingersoll, 1:15 – 2:00 PM, Tuesday

Course Description:

The course covers the following topics: vector treatment of static equilibrium of rigid bodies, static analysis of trusses and other mechanical structures, vector treatment of dynamics of particles and rigid bodies, forces and motion, analysis of rotational motion, and moments of inertia.

Textbook: Beer, Johnston, Mazurek, Cornwell, Vector Mechanics for Engineers, 12th Ed., McGraw Hill

Course Website:

Course material: <http://academic.brooklyn.cuny.edu/physics/tung/phys3200f24>

Lectures: 2:15 – 3:30 PM Tuesday; 1:15 – 3:30 PM Thursday; Rm 431NE

Grades:

Classwork: 25%, Lecture Exams (2): 15%, 25%, Final Exam: 35%

You must show computation neatly and clearly on classwork and exams to receive credit.

Exams and Dates:

Exam #1 Ch. 2-4: **Oct. 1;** Exam #2 Ch. 5,6,9,14,15: **Dec. 5;**

Final Exam covers entire semester: **TBA Dec. 17 or 19**

No make up for missed exams. For absences in exam due to medical condition with doctor's note, 90% of the score from the student's following exam will be used as the score for the missed exam. Two missed exams: automatic fail.

Lecture Plan (Tentative):

Ch. 2, Statics of Particles	8/29, 9/3
Ch. 3, Rigid Bodies: Equivalent Systems of Forces	9/5, 10, 12
Ch. 4, Equilibrium of Rigid Bodies	9/17, 19, 24
Ch. 5, Distributed Forces: Centroids and Centers of Gravity	9/26, 10/8
Ch. 6, Analysis of Structures	10/10, 17, 22
Ch. 9, Distributed Forces: Moment of Inertia	10/24, 29
Ch. 14, Systems of Particles	10/31, 11/5, 7
Ch. 15, Kinematics of Rigid Bodies	11/12, 14, 19
Ch. 16, Plane Motion of Rigid Bodies: Forces and ..	11/21, 26, 12/3
Ch. 17, Plane Motion: Energy and	12/10, 12

Note: no classes on Oct. 3, 15, Nov. 28

Last day to drop WD: 9/17; last day to drop W: 11/6.

Academic Integrity

The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for policy implementation can be found at www.brooklyn.cuny.edu/bc/policies. If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member MUST report the violation. *Students should be aware that faculty may use plagiarism detection software.*

Student Disability Services

In order to receive disability-related academic accommodations students must first be registered with the Center for Student Disability Services (CSDS). Students who have a documented disability or suspect they may have a disability (physical or mental condition which substantially limits one or more major life activity) are invited to call the Center at (718) 951-5538 or visit us in 138 Roosevelt Hall. If you have already registered with the CSDS and submitted necessary forms, you will receive your course accommodation letter to provide to your professor and these specific accommodations can be discussed when appropriate.

Student Bereavement Policy

The College has a student bereavement policy to assist students in the event of the death of a loved one: <http://www.brooklyn.cuny.edu/web/about/initiatives/policies/bereavement.php>

Nonattendance Because of Religious Beliefs

The New York State Education Law provides that no student shall be expelled or refused admission to an institution of higher education because he or she is unable to attend classes or participate in examinations or study or work requirements on any particular day or days because of religious beliefs. Students who are unable to attend classes on a particular day or days because of religious beliefs will be excused from any examination or study or work requirements. I will make good-faith efforts to provide students absent from class because of religious beliefs equivalent opportunities to make up the work missed. For more on this policy, please see page 66 of this year's undergraduate bulletin:

<https://www.brooklyn.edu/wp-content/uploads/2023-2024-Undergraduate-Bulletin.pdf>

Library Services

Here is a link to the library website: <https://library.brooklyn.cuny.edu/resources/>