Math 102 Calculus II
Spring 2024 Sections 3 & 13

Instructor

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Schedule

Sec. 3: Tue. 10:30–12:20, B 203; Thu. 15:30–17:20, B 203.
Sec. 13: Tue. 15:30–17:20, B 111; Fri. 10:30–12:20, B 111.

Office Hours

Tue. 12:30–13:20, Fri. 12:30–13:20; or just stop by my office; or write me an e-mail to set up another time.

Textbook

Calculus, 9th ed., metric, J. Stewart, D. Clegg, S. Watson, Cengage Learning, 2021.

Course Coordinator

Okan Tekman, http://www.fen.bilkent.edu.tr/∼otekman/
Old exam questions and solutions can be found at this web page.

Web Sites

http://www.moodle.bilkent.edu.tr/2021-2022-spring/course/view.php?id=71
Official web page of Math 102; all announcements are here; access through STARS.

https://www.webassign.net/
Web site for homeworks; register only once with ENTER CLASS KEY button using class key bilkent.tr 5324 5363 and your Bilkent ID number.

Exams and Grading

There are **2** midterm exams and **1** final exam each consisting of **4** questions, lasting 100 minutes, and each worth **26**$\frac{2}{3}$**%** of the total grade. There are some number of homeworks and **6** preannounced quizzes each worth **10%** of the total grade. There is **no** make-up for missed homeworks or quizzes. The lowest homework and quiz grades of each student are **dropped**. An approved medical excuse is required to **make up** exams. The make-up exam for the midterm exam takes place the week **after** the midterm exams week and covers all the topics of the semester.

Students the sum of whose midterm grades are less than **40** out of 200 get **FZ** grades and cannot take the final. Students who miss the final get **FX** grades if their totals fall in the F range. Letter grades are given according to the following intervals of total grades without rounding off: $[0, 30)$: F, $[30, 40)$: D, $[40, 45)$: D+, $[45, 50)$: C−, $[50, 55)$: C, $[55, 60)$: C+, $[60, 65)$: B−, $[65, 70)$: B, $[70, 75)$: B+, $[75, 80)$: A−, $[80, 100]$: A.

Weekly Program

Wk	Dates	Sections to be covered
1	Jan. 29 – Feb. 2	(*Course add/drop deadline, Fri., Feb. 2*) 11.1 Sequences
2	Feb. 5–9	11.2 Series 11.3 The Integral Test and Estimates of Sums
3	Feb. 12–16	11.4 The Comparison Tests 11.5 Alternating Series and Absolute Convergence 11.6 The Ratio and Root Tests

4	Feb. 19–23	11.7 Strategy for Testing Series (*reading assignment*) 11.8 Power Series 11.9 Representation of Functions as Power Series
5	Feb. 26 – Mar. 1	11.10 Taylor and Maclaurin Series 11.11 Applications of Taylor Polynomials
6	Mar. 4–6	(*Spring Break, Thu., Fri., Mar. 7, 8*) 12.1 Three-Dimensional Coordinate Systems 12.2 Vectors 12.3 The Dot Product (*up to* Direction Angles and Direction Cosines)
7	Mar. 11–15	12.4 The Cross Product (*up to* Triple Products) 12.5 Equations of Lines and Planes (*up to* Distances) 10.1 Curves Defined by Parametric Equations 10.2 Calculus with Parametric Curves (*only* Arc Length) 13.1 Vector Functions and Space Curves 13.2 Derivatives and Integrals of Vector Functions 13.3 Arc Length and Curvature (*up to* Curvature)
		Midterm Exam I, Sat., Mar. 16, Morning (Tentative)
8	Mar. 18–22	(*Withdraw deadline, Wed., Mar. 20*) 12.6 Cylinders and Quadric Surfaces (*reading assignment*) 14.1 Functions of Several Variables 14.2 Limits and Continuity
9	Mar. 25–29	14.3 Partial Derivatives 14.4 Tangent Planes and Linear Approximations
10	Apr. 1–5	14.5 The Chain Rule 14.6 Directional Derivatives and the Gradient Vector (*No classes, Mon.–Tue., Apr. 8–9*) (*Şeker Bayramı, Wed.–Fri, Apr. 10–12*)
11	Apr. 15–19	14.7 Maximum and Minimum Values 15.1 Double Integrals over Rectangles
12	Apr. 24–26	(*No classes, Mon., Apr. 22*) (*Ulusal Egemenlik ve Çocuk Bayramı, Tue., Apr. 23*) 15.2 Double Integrals over General Regions
		Midterm Exam II, Sat., Apr. 27, Morning (Tentative)
13	Apr. 29, 30, May 2, 3	(*Emek ve Dayanışma Günü, Wed., May 1*) 10.3 Polar Coordinates 15.3 Double Integrals in Polar Coordinates
14	May 6–10	15.9 Change of Variables in Multiple Integrals 15.6 Triple Integrals
15	May 13–17	15.7 Triple Integrals in Cylindrical Coordinates 15.8 Triple Integrals in Spherical Coordinates (*Atatürk'ü Anma, Gençlik ve Spor Bayramı, Sun., May 19*)
		Final Exams, Mon., May 20 – Sat., June 1