

IE 630 Tentative Calendar (2 pages), Revised Wednesday November 29, 2023

Notes: Calendar is tentative and may not match what is covered during any particular class.

TUESDAY	THURSDAY
August 22 Introduction [Ehrgott, 2005, §1.1–§1.3]	Class 1 August 24 Orders & Cones [Ehrgott, 2005, §1.4]
August 29 No Class, Reading Day: Review Linear Programming [Bazaraa et al., 2010, Luenberger and Ye, 2016]	Class 3 August 31 Orders & Cones [Ehrgott, 2005, §1.4–1.5]
September 5 Guest Lecture: Akshita Gupta, Convex Optimization [Boyd and Vandenberghe, 2004, Ch 4]	Class 4 September 7 Guest Lecture: Akshita Gupta, Duality, Lagrangian, KKT [Boyd and Vandenberghe, 2004, Ch. 5]
September 12 Efficient & Nondominated Points [Ehrgott, 2005, §2.1]	Class 6 September 14 Efficient & Nondominated Points [Ehrgott, 2005, §2.1]
September 19 Bounds on the Nondominated Set [Ehrgott, 2005, §2.2]; Weakly and Strictly Efficient Points [Ehrgott, 2005, §2.3]	Class 8 September 21 Weakly and Strictly Efficient Points [Ehrgott, 2005, §2.3]
September 26 Weakly and Strictly Efficient Points [Ehrgott, 2005, §2.3]; Proper Efficiency and Proper Nondominance [Ehrgott, 2005, §2.4]	Class 10 September 28 Proper Efficiency and Proper Nondominance [Ehrgott, 2005, §2.4]
October 3 Weighted Sum and (Weak) Efficiency [Ehrgott, 2005, Ch. 3 intro and §3.1]	Class 12 October 5 Weighted Sum and Weak / Proper Efficiency [Ehrgott, 2005, §3.1, §3.2]
October 10 Fall Break	Class 14 October 12 Optimality Conditions [Ehrgott, 2005, §3.3]
October 17 No Class: Attend multiobjective sessions at INFORMS Annual Meeting (Phoenix, AZ)	Class 15 October 19 Connectedness of Efficient and Nondominated Sets, Intro to Ch. 4 [Ehrgott, 2005, §3.4, Ch. 4]
October 24 ϵ -Constraint, Hybrid Methods [Ehrgott, 2005, §4.1, §4.2]	Class 16 October 26 Hybrid, Elastic, Benson's Method [Ehrgott, 2005, §4.2, §4.3, §4.4]
October 31 Compromise Solutions [Ehrgott, 2005, §4.5]	Class 18 November 2 Intro to Multiobjective LPs [Ehrgott, 2005, Ch. 6, §6.1]
November 7 Multiobjective LPs [Ehrgott, 2005, §6.1]	Class 20 November 9 Biobjective Simplex [Ehrgott, 2005, §6.2], also see Luenberger and Ye [2016] for single-objective
November 14 Multiobjective Simplex [Ehrgott, 2005, Ch 7, §7.1-7.2, emphasis §7.2]	Class 22 November 16 Benson's Outer Approx. Algorithm for MOLP [Benson, 1998]; also see Löhne [2011, §5.1]
November 21 No Class, Reading Day	November 23 Thanksgiving Break

TUESDAY	THURSDAY
November 28 MO Convex Quadratic [Toure et al., 2019, Glasmachers, 2019, Ondes and Hunter, 2023]	Class 24 November 30 Performance Indicators [Audet et al., 2021, Li and Yao, 2019, Zitzler et al., 2003]
December 5 Bi-objective simulation optimization on integer lattices using the ϵ -constraint method in an RA framework [Cooper et al., 2020, Cooper and Hunter, 2020]	Class 26 December 7 Guest Talk: Burla Ondes, Properties of several performance indicators for global multi-objective simulation optimization [Hunter and Ondes, 2023]

References

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