

# Syllabus

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Lecture date, number — Subjects

Th Aug 30: 1 Scientific notation, scale, Earth's rotation, time zones

Tu Sept 4: 2 Seasons, phases, eclipses, other phenomenology

Th Sept 6: 3 History 1: The Greeks, Copernicus, Tycho, Kepler

Tu Sept 11: 4 History 2: Galileo, Newton

Th Sept 13: 5 How science works

Tu Sept 18: 6 The nature of light, telescopes

**Th Sept 20: Midterm exam 1: Lectures 1 — 6**

Tu Sept 25: 7 How astronomers use spectra to learn about stars

Th Sept 27: 8 Stars: distance, luminosity, mass, ..., star formation

Tu Oct 2: 9 Stars: our Sun

Th Oct 4: 10 Stars: energy generation, main sequence life

Tu Oct 9: 11 Stars: life from main sequence to white dwarf

Th Oct 11: 12 Stars: death — supernovae, neutron stars, black holes

**Tu Oct 16: Midterm exam 2: Lectures 7 — 12**

Th Oct 18: 13 Our Galaxy — the Milky Way

**Tu Oct 23: Midterm exam 3: Lectures 1 — 12**

Th Oct 18: 13 Our Galaxy — the Milky Way

Th Oct 25: 14 Galaxies: properties, clusters of galaxies, dark matter

Tu Oct 30: 15 Galaxies: evolution, distances, expansion of Universe

Th Nov 1: 16 Galaxies: active galaxies, supermassive black holes

Tu Nov 6: 17 Cosmology: Big Bang — evolution of the Universe

**Th Nov 8: Midterm exam 4: Lectures 13 — 17**

Tu Nov 13: 18 Solar System: introduction, formation

Th Nov 15: 19 Solar System: other solar systems, Jupiter—Neptune

Tu Nov 20: 20 Solar System: outer parts: Pluto, Kuiper belt, comets

Th Nov 22: **Thanksgiving — no class**

Tu Nov 27: 21 Solar System: satellites, asteroids, Moon, Mercury

Th Nov 29: 22 Solar System: Venus, Mars, Earth

Tu Dec 4: 23 History of life on Earth, life in the Universe

**Th Dec 6: Midterm Exam 5: Lectures 18 — 23**

**There will be no final exam.**