#		Monday	Tuesday	Wednesday	Thursday	Friday	Topics
0	Sept 02-06	**PHYS-3600 Schedule (Fall 2024)** ➥ Hand in, Hand out →			Sept. 5 **First Day**	*Days with lectures in yellow*	**Foundations:** ♦ *Reminder:* Python Basics ♦ Notebooks; numpy, plotting
1	Sept 09-13		Sept. 10		Sept. 12 A1→		♦ Errors and complexity ♦ Numerical Differentiation
2	Sept 16-20		Sept. 17	**Recorded lectures this week**	Sept. 19 ➥**A1**		♦ Numerical Integration ♦ Root-finding / Linear equations
3	Sept 23-27		Sept. 24		Sept. 26 A2→		**Classical Mechanics:** ♦ Euler to Runge-Kutta ♦ Symplectic methods
4	Sept 30- Oct 04		Oct. 1 ➥**Proposal** (Initial)		Oct. 3 ➥**A2** A3→		*Applications:* ♦ Double pendulum (chaos) ♦ Solar system (precession)
	Oct 07-11		Oct. 8		Oct. 10 ➥**A3**		*Applications:* ♦ Molecular dynamics (heat) ♦ Brownian motion (diffusion)
5	Oct 14-17		Oct. 15	**Reading Week**	Oct. 17		
6	Oct 21-25		Oct. 22 ➥**Proposal** (Resub.)		Oct. 24 A4→		**EM & Waves:** ♦ Discretization, FDTD ♦ Implicit methods;relaxation
7	Oct 28- Nov 1		Oct. 29		Oct. 31 ➥**A4**		*Applications:* ♦ Electrostatics (conductors) ♦ Heat equation (diffusion)
8	Nov 04-08		Nov. 5		Nov. 7 A5→		*Applications:* ♦ Wave equations (solitons) ♦ Maxwell's Equations (light)
9	Nov 11-15		Nov. 12	*VW Date*	Nov. 14 ➥**A5** A6→		**Quantum mechanics:** ♦ TISE; discretization ♦ Diagonalization; Jacobi
10	Nov 18-22		Nov. 19		Nov. 21		*Applications:* ♦ Quantum Billiards (chaos) ♦ Atomic defect; MFT (atoms)
11	Nov 25-29		Nov. 26 ➥**A6**	*Assessment cutoff*	Nov. 28 ➥**Project** (Draft)		♦ TDSE; split-operator ♦ Fast Fourier Transform ♦ Double well (tunnelling)
12	Dec 02-06		Dec. 3	**Last day**	**Lectures are in Essex Hall 287, 1:00PM-2:20PM**		**Outlook**