Plan for Math 124, Fall 2001[1]

Date		Note	Reading	Subject
W	Sept 12		**D**7–8, **K**ix–4	Overview 1: What is This Course About?
F	Sept 14		**D**16–31	Primes 1: Prime Factorization
M	Sept 17		**D**179–181, **P**1–13	Computing 1: Introduction to Computing and PARI
W	Sept 19	hwk	**D**35–38	Primes 2: The Sequence of Prime Numbers
F	Sept 21		**D**41–48	Congruences 1: Fermat's Theorem
M	Sept 24		**D**48–51	Congruences 2: Chinese RT, Wilson's Theorem, Prime Modulus
W	Sept 26	hwk	**D**51–56	Congruences 3: Equations Modulo N
F	Sept 28		**D**206–209	Cryptography 1: Intro to Public-key Crypto. (Diffie-Helman)
M	Oct 1		**D**210–211	Cryptography 2: The RSA Cryptosystem
W	Oct 3	hwk	`www.rsa.com`	Cryptography 3: RSA in Practice
F	Oct 5		**D**59–62	Quadratic reciprocity 1: Primitive Roots
M	Oct 8	holiday	.....	.....
W	Oct 10	hwk	**D**63–70	Quadratic reciprocity 2: The Reciprocity Law
F	Oct 12		**D**70–74	Quadratic reciprocity 3: The Proof
M	Oct 15			Overview 2: Midterm Review
W	Oct 17	hwk		**Midterm**
F	Oct 19		**G**145–152	Computing 2: Programming in PARI
M	Oct 22		**D**78–89	Continued Fractions 1: Introduction, Basic Facts
W	Oct 24	hwk	**D**89–93	Continued Fractions 2: Infinite Continued Fractions
F	Oct 26		**D**94–104	Continued Fractions 3: Quadratic Irrationals
M	Oct 29		**D**104–111	Continued Fractions 4: Pell's Equation
W	Oct 31	hwk	**D**115–120	Quadratic Forms 1: Sums of Two Squares
F	Nov 2		**D**129–133	Quadratic Forms 2: Equivalence of Quadratic Forms
M	Nov 5		**D**133–138	Quadratic Forms 3: Discriminants
W	Nov 7	hwk	**D**140–145	Quadratic Forms 4: Reduced Positive Definite Forms
F	Nov 9		**D**159–162	Elliptic Curves 1: Trivial Notions 1
M	Nov 12	holiday	.....	.....
W	Nov 14	hwk	**K**17–20	Elliptic Curves 2: Basic Notions 1
F	Nov 16		**D**162–165, **K**25–32	Elliptic Curves 3: Basic Notions 2
M	Nov 19		**P**21–24, **G**76–82	Computing 3: Computing with Elliptic Curves using PARI
W	Nov 21	hwk	**D**165–168	Elliptic Curves 4: Elliptic Curves over Finite Fields
F	Nov 23	holiday	.....	.....
M	Nov 26			Elliptic Curves 5: Elliptic Curve Factorization 1
W	Nov 28	hwk		Elliptic Curves 6: Elliptic Curve Factorization 2
F	Nov 30		**D**168–170	Elliptic Curves 7: Fermat's Last Theorem
M	Dec 3		**K**20–24	Elliptic Curves 8: The Congruent Number Problem
W	Dec 5	hwk	**W**1–2	Elliptic Curves 9: The Birch and Swinnerton-Dyer conjecture 1
F	Dec 7		**W**3–5	Elliptic Curves 10: The Birch and Swinnerton-Dyer conjecture 2
M	Dec 10			Computing 4: Empirical Evidence for the BSD Conjecture
W	Dec 12			Overview 3: Final Review

D: Davenport, **K**: Kato et al., **P**: PARI tutorial, **G**: PARI guide, **W**: Wiles

[1] Remember that this plan is only a plan, not a contract.