HISTORY OF MATH:
TENTATIVE SCHEDULE

JON MCCAMMOND

Week 1: (Euler, d'Alembert, Lagrange, Monge, Laplace, Legendre)
1. Mathematics up to Euler (quick overview and the importance of Euler)
2. The French revolution and the ecole normal superior system

Week 2: (Fourier, Germain, Gauss, Poisson, Poncelet, Cauchy)
1. Projective and non-euclidean geometry
2. Complex analysis

Week 3: (Abel, Jacobi, Dirichelet, Hamilton, Liouville, Grassmann)
1. Solving the quintic
2. Quaternions and the Ausdehnungslehre

Week 4: (Kummer, Galois, Sylvester, Weierstrauss, Chebyshev, Cayley)
1. The Berlin school: the insistence on rigor and the rise of the seminar
2. Statistics, probability and the rise of the nation-state

Week 5: (Hermite, Kronecker, Riemann, Smith, Dedekind, Lie)
1. Ideal numbers and Fermat's last theorem
2. The unity of 19th century mathematics: elliptic integrals, Riemann surfaces, and hypergeometric functions

Week 6: (Cantor, Mittag-Leffler, Klein, Kovalevskaya, Poincaré, Hilbert)
1. Göttingen at its peak
2. The Chicago world's fair and the development of American mathematics
3. ICMs and international research conference

Week 7: (E.L. Moore, Hadamard, Hausdorff, Cartan, Borel, Takagi)
1. Foundations and the rise of topology
2. Lie groups and Lie algebras

Week 8: (Hardy, Veblen, Brouwer, Noether, R.L. Moore, Lefschetz)
1. Bourbaki and the rise of abstraction
2. Mathematics during and after the world wars (mathematics under the Nazis, Einstein et al. and the institute for advanced studies)

Week 9: (Birkhoff, Weyl, Pólya, Ramanujan, Courant, Alexander)
1. Algebraic geometry and its quest for firm foundations
2. Noncommutative geometry and the eventual reunion with physics

Week 10: (Banach, Wiener, Aleksandrov, Zariski, Kolmogorov, von Neumann)
1. Mathematics during and after the cold war (Smale, Russian school, the migrations in the 90s)
2. Technology and mathematics (TeX, email, pdfs, etc)