## Syllabus for CS 412, Fall 2000 (as of 09nov00)

```
dec(14): (earned free day: voluntary review??) =
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sep 5: 1-9, 13-15
sep 7: 16-27
sep 12: 27-35
sep 14: 34-38, 41-48
sep 19: notes
sep 21: 48-54, 59-60; 74-76, 83
sep 26: 76-79, 83-96, notes
sep 28: 92-96, 104-106, notes
oct 3: 104-106, 110-113, notes
oct 5: 110-115, notes
oct 10: splines (cont.)
oct 12: 136-158, notes
oct 17: quadrature cont.
oct 19: 152-153, 168-182
oct 24: review
oct(26): (exam)
oct 31: 184-186, 209-214, 221-232
nov 02: 221-232, 240-245
nov 07: 234-238, 235-236
nov 09: 254-259
nov 14: 275-293
nov 16:
$\operatorname{nov}(21)$ : (earned free day)
nov 28: 293-304
nov 30: 327-337
dec 5: 338-348
dec 7: 349-359
dec 12: review
= 1.1.1-4
$=1.2$
= 1.2.4cont - 1.3.2
= 1.3.2cont,(skip 1.3.3), 1.4
$=1.4$ (cont)
= added: catastrophic cancellation
$=$ differentiation of programs
= 1.5.1, (skip 1.5.2),1.6 (briefly),
$=1.7$ left to you as needed; 2.0;;
$=2.1 .1-3$ (2.1.4 covered by 2.3.3),2.2,
= substituted: polynomial interpolation
$=2.3,2.4 .1-2,3.1 .1$, (skip 3.1.2)
= cont: polynomial interpolation
$=$
= added: use of matlab's ppval, mkpp, etc
= 3.2-3
= added: use of matlab's spline, etc
$=$
= use of matlab's spline, other end conditions
= spline curves
$=4.1-4,4.2,4.3,4.4 .1$
= substituted: material on quadrature
$=$ (rehash of differentiation of a program)
= 4.3.2, 5.1, 5.2.1, 5.2.3
= substituted: material on quadrature error; ma
=
$=$
$=5.2 .5$ (skip 5.3, 5.4, 5.5), 6.1, 6.3
= 6.3, 7.1
= substituted: pivoting
= substituted: least-squares approximation
= 6.4, 7.2 (skip 7.2.1-3)
= substituted: condition of a matrix
$=7.3$ (skip 7.3.3-4)
planned
$=8.1$
= summary: root finding
$=8.1$ cont.
=
$=8.2$
$=9.1$
= substituted: ode's
$=9.2$
$=9.3$
=

