

List of Graduate Courses**Gary W. Johnson****4-16-04**

Purpose: To list courses, and to define course content better than just the titles

Note: Research and Thesis credits not listed (see transcripts)

University of Texas at Austin -----

<u>When</u>	<u>number</u>	<u>title</u>	<u>grade</u>
Summer 1972	ASE W396	“Numerical Methods in Fluid Mechanics” finite difference approximation of differential equations (various forms of the Navier-Stokes equations)	A
Fall 1972	ASE 382R	“Low Speed Aerodynamics” subsonic flow with compressibility, practical equations and methods	A
	ASE 382R	“Hypersonic Aerodynamics” theories, dissociated gas properties methods, and correlations for pressure distributions and heat transfer	A
	ASE 380P	“Analysis – Analytical Methods I” see note 7	A
Spring 1973	ASE 382R	“High Speed Aerodynamics” theory and correlations for transonic flow, with shock-boundary layer interactions	A
	ASE 386P	“Aircraft Stability and Control Analysis” standard 6 degree-of-freedom analysis with non-rigid airframe effects	B
	ASE 385P	“Advanced Dynamics” analytical methods in physics: vectors, complex numbers, Laplace transforms, Fourier analysis, special functions, and variational methods	B
	ASE 380P	“Advanced Engineering Computation” ????	A

Summer 1973	ASE N382Q	“Applied Fluid Mechanics” ????	B
Fall 1973	ASE 380P	“Analysis – Analytical Methods I” see note 7	A
	ASE 382Q	“Foundations of Fluid Mechanics” analytical solutions to relevant cases of the Navier-Stokes equations	B
	ASE 396	“Applications of Fluid Mechanics” ????	A
Spring 1974	ASE 380P	“Analytical Methods II” Linear algebra, quadratic forms, Hilbert spaces, calculus of variations, Eigenfunctions, Sturm-Liouville problem, series solutions	A
	ASE 398T	“Supervised Teaching in ASE” teaching assistant and field trip duties	A
Fall 1974	MAN 336	“Organizational Behavior and Administration” characteristics of organizations and how to run them	A
	MAN 376	“Management of Human Resources” what to watch for and how to hire	B
	ME 366L	“Introduction to Operations Research” PERT/CPM and linear programming	A
	ME 394J	“Economic Analysis of Energy Systems” engineering economic analysis, including net present value and compound interest	A
Spring 1975	CHE 394	“Applied Nonlinear Programming” numerical solution of nonlinear systems	A
	ME 379L	“Intermediate Operations Research” queuing theory and stochastic processes	B
Summer 1975	ME W397	“Applied Solar Energy” solar thermal systems and radiation physics, system performance, economic analysis	A

Fall 1975	ME 391Q	“Network Theory” analyses similar to PERT/CPM	Q (withdrawn)
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Kennedy-Western University -----

<u>When</u>	<u>number</u>	<u>title</u>	<u>grade</u>
1-7-97	ENG 810	“Quality Planning and Analysis” classical TQM methods, total life cycle	B
5-28-97	ENG 800	“Management Theory and Practice” cost/benefit analysis, risk analysis, technology transfer, and impact assessment	A
9-30-98	ENG 840	“Production and Operations Management” forecasting, project control, capacity planning, materials management, layout planning, “just-in-time” approach, process planning, and scheduling	A
11-15-99	ENG 860	“Environmental Compliance Technology” federal statutes and regulations, various relevant technologies	A
4-4-00	ENG 820	“Engineering Economics” depreciation, reinvestment, and inflation	A
5-23-00	ENG 760	“Management & Organization of Research and Development” characteristics, forecasting, budgeting, technology assessment, and scheduling	A

Misc. notes:

1. Recurrent transcript entries for ASE 397K / W397K “Research in Fluid Mechanics” were wind tunnel work; from June 1972 to December 1973, work was in the Mach 5 Hypersonic facility; from January 1974 to December 1975, work was in various low-speed facilities. None of these are included in this list.

2. One-time transcript entry for ASE 397K “Research in Solid Mechanics” was custom instruction in advanced structural analysis. This transpired just prior to the written qualifying exam in structures at the PhD level. This course is not included in this list.

3. ??? means that I simply don’t remember any details at all, any more. Computation courses and fluid mechanics courses probably focused upon numerical solutions to special cases of the Navier-Stokes equations.

4. I withdrew from UT in December 1975 to go to work in industry, without completing a PhD at that time.

5. Original enrollment at KWU was summer 1996, but I did not complete the degree in the requisite 2 years; I re-enrolled in April 1998 and then completed the degree.

6. Dates for KWU courses are the dates on the grade report letters received.

7. There are two entries for ASE 380P “Analysis Methods I”. One focused more on series expansions and series solutions to differential equations. The other focused more on special functions, such as Bessel functions and Legendre polynomials. I no longer remember which one was which.