

CE394M: Isoparametric elements and Gauss integration

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1 Numerical analysis of engineering problems

Numerical analysis of engineering problems

- Conceptualize the system
 - Geometry
 - Properties
 - Processes
- Describe it mathematically
 - Select the relevant differential equations
- Solve the equations (numerically)
 - Discretize the system
 - Settle for approximations (numerical techniques)
- Interpret the results