



Design Project Assessment Rubric

Course No.: CHEN4470 Process Design Practice Date: _____

Team/Student: _____ Reviewer: _____

Topic (Weight)	Unacceptable (0)	Marginal (1)	Acceptable (2)	Exceptional (3)	Points
Design Problem and Boundaries (1)	← Little or no grasp of problem. Incapable of producing a successful solution.	← Some understanding of problem. Major deficiencies that will impact the quality of solution.	← Overall sound understanding of the problem and constraints. Does not significantly impair solution.	← Clear and complete understanding of design goal and constraints.	
Alternative Designs (2)	← Only one design presented or clearly infeasible alternative given.	← Serious deficiencies in exploring and identifying alternative designs.	← Alternative approaches identified to some degree.	← Final design achieved after review of reasonable alternatives.	
Use of Computer-Aided Tools (2)	← Serious deficiencies in understanding the correct selection and/or use of tools.	← Minimal application and use of appropriate tools.	← Computer-aided tools used with moderate effectiveness to develop designs.	← Computer-aided tools are used effectively to develop and analyze designs.	
Application of Engineering Principles (2)	← No or erroneous application of engineering principles yielding unreasonable solution.	← Serious deficiencies in proper selection and use of engineering principles.	← Effective application of engineering principles resulting in reasonable solution.	← Critical selection and application of engineering principles ensuring reasonable results.	
Final Design (3)	← Not capable of achieving desired objectives. No implementation of resource conservation and recycle strategies.	← Barely capable of achieving desired objectives. Minimal utilization of resource conservation and recycle potentials.	← Design meets desired objectives. Moderately effective utilization of resource conservation and recycle potentials.	← Design meets or exceeds desired objectives. Effective implementation of resource conservation and recycle strategies.	
Process Economics (1)	← No or totally erroneous cost estimates presented.	← Reasonable cost estimates presented, but no profitability analysis included.	← Reasonable profitability analysis presented, but no interpretation of the results.	← Effective use of profitability analysis leading to improvement recommendations.	



Interpretation of Results (2)	← No or erroneous conclusions based on achieved results.	← Serious deficiencies in support for stated conclusions.	← Sound conclusions reached based on achieved results.	← Insightful, supported conclusions and recommendations.	
OVERALL PERFORMANCE	← Unacceptable	← Marginal	← Acceptable	← Exceptional	TOTAL
POINTS REQUIRED	0–9	10–19	20–29	30–39	