

References

- Accreditation Board for Engineering and Technology, "Criteria for Accrediting Programs in Engineering in the United States," <http://www.abet.org/organization/eac/98eac-criteria.htm>.
- Accreditation Board for Engineering and Technology, "Engineering Criteria 2000," <http://www.abet.org/organization/eac/eac2000.htm>.
- Adams, James L. (1986), *The Care and Feeding of Ideas: A Guide to Encouraging Creativity*, Addison-Wesley, Reading, MA.
- Amon, Cristina H., Finger, Susan, Siewiorek, Daniel P., and Smailagic, Asim (1996), "Integrating Design Education, Research and Practice at Carnegie Mellon: A Multi-disciplinary Course in Wearable Computers," *Journal of Engineering Education*, vol. 85, no. 4; pp.279-285.
- Atman, Cynthia J., and Bursic, Karen M. (1996), "Teaching Engineering Design : Can Reading a Textbook Make a Difference?" *Research in Engineering Design*, vol. 8, no.4; pp. 240-250.
- Atman, Cynthia J., and Bursic, Karen M. (1998), "Verbal Protocol Analysis as a Method to Document Engineering Student Design Processes," *Journal of Engineering Education*, vol. 87, no. 2, April; pp. 121-132.
- Bailie, Richard C., Shaeiwitz, Joseph A., and Whiting, Wallace B. (1994), "An Integrated Design Sequence: Sophomore and Junior Years," *Chemical Engineering Education*, vol. 28, no. 1; pp. 52-57.
- Bodker, Susanne (1998), "Understanding Representation in Design," *Human Computer Interaction*, Vol. 13; pp. 107-125.
- Burr, Arthur H. and Cheatum, John B. (1995), *Mechanical Analysis and Design*, 2nd edition, Prentice Hall, Englewood Cliffs, NJ.
- Catalano, George D. (1994), "Engineering Design: A Partnership Approach," *Journal of Engineering Education*, vol. 83, no. 2; pp.130-134.
- Couter, Sandra Shaw, Millar, Susan B., and Lyons, Lyman (1998), "From the Students' Point of View: Experiences in a Freshman Engineering Design Course," *Journal of Engineering Education*, vol.87, no. 3; pp. 283-288.
- Crawford, Richard H., Wood, Kristin L., Fowler, Marilyn L., Norrell, Jeffrey L. (1994), "An Engineering Design Curriculum for the Elementary Grades," *Journal of Engineering Education*, vol. 82, no. 2, April; pp. 172-181.
- Dixon, John R. and Poli, Corrado (1995), *Engineering Design and Design for Manufacturing: A Structured Approach*, Field Stone Publishers, Conway, MA.
- Dunn-Rankin, Derek, Bobrow, James E., Mease, Kenneth D., and McCarthy, Micheal J. (1998), "Engineering Design in Industry: Teaching Student and Faculty to Apply Engineering Science in Design," *Journal of Engineering Education*, vol. 87, no. 3, pp.219-222.

- Dutson, Alan J., Todd, Robert H., Magleby, Spenser P., and Sorenson, Carl B. (1997), "A Review of Literature on Teaching Engineering Design Through Project-Oriented Capstone Course," *Journal of Engineering Education*, vol. 86, no. 1; pp.17-28.
- Dym, Clive (1994), "Teaching Design to Freshmen: Style and Content," *Journal of Engineering Education*, vol. 83, no. 4; pp.303-310.
- Ercolano, Vincent (1996), "Designing Freshmen," *ASEE Prism*, vol. 5, no. 8; pp. 20-25.
- Gorman, Michael E., Richards, Larry G., Scherer, William T., and Kagiwada, Julia K. (1995), "Teaching Invention and Design: Multi-Disciplinary Learning Modules," *Journal of Engineering Education*, vol. 84, no. 2; pp.175-185.
- Harris, T.A., and Jacobs, H.R., (1995), "On Effective Methods to Teach Mechanical Design," *Journal of Engineering Education*, vol. 84, no. 4; pp.343-349.
- Hsu, Yeh-Liang (1998), "Teaching Mechanical Design to a Large Class: A Report from Taiwan," *Journal of Engineering Education*, vol. 87, no. 1; pp. 47-51.
- Johnson, Scott (1998), "What's in a Representation, Why do we Care, and What does it Mean? Examining Evidence from Psychology," *Automation in Construction*, Vol. 8; pp. 15-24.
- Koen, Billy (1994), "Toward a Strategy for Teaching Engineering Design," *Journal of Engineering Education*, vol.83, no. 3; pp.193-201.
- Kuczmariski, Thomas (1992), *Managing New Products: The Power of Innovation*, Prentice Hall, Englewood Cliffs, NJ.
- Lamancusa, John S., Jorgensen, Jens, E., and Zayas-Castro, Jose L. (1997), "The Learning Factory – A New Approach to Integrating Design and Manufacturing into the Engineering Curriculum," *Journal of Engineering Education*, vol. 86, no. 2; pp. 103-112.
- Lindbeck, John R. (1995), *Product Design and Manufacture*, Prentice Hall, Englewood Cliffs, NJ.
- McConica, Carol (1996), "Freshmen Design Course for Chemical Engineers," *Chemical Engineering Education*, vol. 30, no. 1; pp.76-80.
- Mertz, Robert J. (1997), "A Capstone Design Course," *IEEE Transactions on Education*, vol. 40, no. 1; pp.41-45.
- Miles, Matthew B. and Huberman, A. Michael (1994), *Qualitative Data Analysis*, 2nd edition, Sage Publications, Thousand Oaks, CA.
- Miller, Ronald L., and Olds, Barbara M. (1994), "A Model Curriculum for a Capstone Course in Multidisciplinary Engineering Design," *Journal of Engineering Education*, vol. 83, no. 4; pp. 311-316.
- Morris, C.D., and LaBoube, R.A. (1995), "Teaching Civil Engineering Design: Observations and Experiences," *Journal of Professional Issues in Engineering Education and Practice*, vol. 121, no. 1; pp.47-53.
- Norton, Robert L. (1996), *Machine Design: An Integrated Approach*, Prentice Hall, Upper Saddle River, NJ.

- Ozturk, Hatice O., Sutton, III, John C., Vandebout, David E., Cavin, III, Ralph K., and Brickley, Jr., James J. (1995), "A Center for Teaching Design in Electrical and Computer Engineering," *Journal of Engineering Education*, vol. 84, no. 2; pp.121-127.
- Parcover, Jason A., and McCuen, Richard H. (1995), "Discovery Approach to Teaching Engineering Design," *Journal of Professional Issues in Engineering Education and Practice*, vol. 121, no. 4; pp. 236-241.
- Peschl, Mark and Stary, Chris (1998), "The Role of Cognitive Modeling for User Interface Design Representations," *Minds and Machines*, Vol. 8; pp. 203-236.
- Pugh, Stuart (1991), *Total Design: Integrated Methods for Successful Product Engineering*, Addison-Wesley Publishing Company, Wokingham, England.
- Richard, Larry G., and Carlson-Skalak, Susan (1997), "Faculty Reactions to Teaching Engineering Design to First Year Students," *Journal of Engineering Education*, vol. 86, no. 3; pp.233-240.
- Rockstraw, David A., Eakman, James, Nabours, Nick, and Bellner, Steven (1997), "An Integrated Course and Process Design," *Chemical Engineering Education*, vol. 31, no. 2; pp. 94-99.
- Seider, Warren D., and Kivnik, Arnold (1994), "Process Design Curriculum at Penn: Adapting for the 1990's," *Chemical Engineering Education*, vol. 28, no. 2; pp.92-97.
- Shaelwitz, Joseph A., Whiting, Wallace B., and Velegol, Darrell (1996), "A Large-Group Senior Design Experience: Teaching Responsibility and Life-Long Learning," *Chemical Engineering Education*, vol. 30, no. 1; pp. 70-75.
- Shigley, Joseph E. (1963), *Mechanical Engineering Design*, McGraw-Hill Book Company Inc., New York.
- Smith and Reinertsen (1991), *Developing Products in Half the Time*, Van Nostrand Reinhold, New York.
- Sobek, II, Durward K. (1997), *Principles that Shape Product Development Systems: A Toyota-Chrysler Comparison*, Ph.D. dissertation, University of Michigan.
- Starkey, John M., Ramadhani, Satish, and Bernhard, Robert, J. (1994), "An Introduction to Mechanical Engineering Design for Sophomores at Purdue University," *Journal of Engineering Education*, vol.83, no. 4; pp.317-323.
- Stary, Chris and Peschl, Mark (1998), "Representation Still Matters: Cognitive Engineering and User Interface Design," *Behaviour and Information Technology*, Vol. 17, No. 6; pp. 338-360.
- Strauss, Anselm and Corbin, Juliet (1990), *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*, Sage Publications, Newbury Park, CA.
- Ullman, David G. (1992), *The Mechanical Design Process*, McGraw-Hill, Inc., New York.
- Ulrich, Karl T. (1995), "The Role of Product Architecture in the Manufacturing Firm," *Research Policy*, Vol. 24, No. 3; pp. 419-440.

- Ulrich, Karl T. and Eppinger, Steven D. (1995), *Product Design and Development*, McGraw-Hill, Inc., New York.
- Waldron, Manjula B., and Waldron, Kenneth J. (1988), "A Time Sequence Study of a Complex Mechanical Systems Design," *Design Studies*, Vol. 9; pp. 95-106.
- Waldron, Manjula B., and Waldron, Kenneth J. (1996a), "The Influence of the Designer's Expertise on the Design Process," in M.B. Waldron and K.J. Waldron, eds., *Mechanical Design: Theory and Methodology*, Springer-Verlag New York, Inc.; pp. 5-20.
- Waldron, Manjula B., and Waldron, Kenneth J. (1996b), "Methods of Studying Mechanical Design," in M.B. Waldron and K.J. Waldron, eds., *Mechanical Design: Theory and Methodology*, Springer-Verlag New York, Inc.; pp. 5-20.
- Wheelwright, Steven C. and Clark, Kim B. (1992), *Revolutionizing Product Development*, The Free Press, New York.
- Wilczynski, V., and Douglas, S.M. (1995), "Integrating Design Across The Engineering Curriculum: A Report From the Trenches," *Journal of Engineering Education*, vol. 84, no. 3; pp.235-240.
- Willey, Ronald and Price, John M. (1998), "Freshman Design Projects: In the Environmental Health and Safety Department," *Chemical Engineering Education*, vol. 32, no. 1; pp.58-61.
- Woods, Donald R., Hrymak, Andrew N., Marshall, Robert R., Wood, Philip E., Crowe, Cameron M., Hoffman, Terrence W., Wright, Joseph D., Taylor, Paul A., Woodhouse, Kimberly A., and Bouchard, C.G. Kyle (1997), "Developing Problem Solving Skills: The McMaster Problem Solving Program," *Journal of Engineering Education*, vol. 86, no. 2, pp.75-91.