

Asynchronous Assessment: Using Electronic Portfolios to Document and Assess Student Learning Outcomes

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Abstract- Portfolios are not a new concept in the assessment of educational outcomes. They have been widely used in elementary and secondary schools for over a decade. The current interest in the use of portfolios to document student outcomes in engineering education has been driven by the adoption of revised engineering accreditation criteria, Engineering Criteria 2000 [1]. In Criteria 3, portfolios are mentioned as one way to document and assess student outcomes. In a white paper [2] issued in 1996 by the Joint Task Force on Engineering Education Assessment, portfolios were referred to as being one assessment method correlated with nine of the eleven desired attributes of engineering graduates identified in EC2000.

The presentation will discuss the experience of Rose-Hulman Institute of Technology in the selection and development of an electronic portfolio (RosE-Portfolio) system designed to document, assess, and evaluate student outcomes. A brief demonstration of how students, faculty, and raters will use the RosE-Portfolio will be given. Lessons learned during the development process and the identification of the elements to consider when designing an electronic portfolio process will also be discussed. The implications for the use of industry and alumni "raters" in the assessment of the portfolio submissions in an "asynchronous" environment will be highlighted.

¹ Engineering Accreditation Commission, *Engineering Criteria 2000*, Accreditation Board for Engineering and Technology, Inc., <http://www.abet.org>.

² "Assessment White Paper: A Framework for the Assessment of Engineering Education," Joint Task Force on Engineering Education Assessment, American Society of Engineering Education, <http://www.asee.org/pubs2/html/assessment.htm>.