

<b>Graduate Education: Professional degree: M.P.S.</b>				
	<b>PAPER &amp; BIOPROCESS ENGINEERING</b>			
<b>Learning Outcome</b>	<b>Where Assessed in Program of Study</b>	<b>How assessed: Goals and Methodology</b>	<b>Assessment Results</b>	<b>Response to Results</b>
1. Develop effective oral and written communication skills	Coordinated by major professor and Steering Committee with filing of Program of Study (Form 3B); review by Graduate Office	Required departmental seminars; informal group presentations; capstone seminar; project or internship report; English language standardized tests	Direct feedback from peers, faculty and Steering Committee; critiques from examination committees; evaluation of teaching mentors	Review seminar requirement; evaluate enhancement of curricular requirements; recommend language instruction for non-native speakers
2. Develop critical thinking and problem solving capabilities	Specific objectives established in Program of Study (Form 3B)	Coursework in methods, design, engineering and/or statistics; teamwork assignments in courses; comprehensive exam and/or capstone seminar	Performance in coursework; adequacy of diagnostic and analytical abilities demonstrated in project and internship reports	Address student access to hardware and software; consider need for new courses
3. Develop synthetic and integrative abilities	As in 1 and 2 above	Project or internship proposal and reports and assignments	Quality of writing; products of collaborative work;	Offer writing workshops and coursework focusing on scientific writing
4. Acquire knowledge of and access to information resources	As in 1 and 2 above	ESF 797 seminar; consultation with departmental librarian liaison; independent research; research proposal preparation; Steering Committee	Graded assignments; adequacy of project and internship proposals; capstone seminar	Review and upgrade library information search engines and data bases
5. Ascribe to highest ethical principles in academic work	In reference to the Student Code of Conduct	Adhere to Academic Integrity policy; ethics coursework	Critiques of written and oral reports and projects;	Continually emphasize that the academic enterprise depends on complete honesty; incorporate professional ethics in curriculum

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