

CRITERION 6. FACULTY

Leadership Responsibilities

Gerard Ring is the department chair. His leadership and management responsibilities are listed in the position description, included in the PSE ABET information web site.

Authority and Responsibility of Faculty

Course creation, modification and evaluation are entirely the responsibility of PSE faculty. The Dean of the College may make suggestions about curricular matters, but it is the faculty's responsibility to take action.

Courses may be created or modified through an established process through the faculty governance system. The procedure is as follows.

1. A department faculty member identifies a need for course creation or modification.
2. After discussion with other department faculty, a "Request to Approve a New Course or Revise a Course" form is completed (see the PSE ABET information web site for an example form).
3. Department faculty members vote on the proposal.
4. The request is sent to the CNR Curriculum Committee, which presents the request at a meeting of the CNR faculty for a vote.
5. The request is forwarded to the University Curriculum Committee for approval. If the course is to satisfy a General Degree Requirement, the request must first be approved by the General Degree Requirement Subcommittee.
6. After the approvals listed in step 5, the request is brought to the Faculty Senate for approval.

Responsibility for consistency and quality of courses resides within the department.

Faculty

Table 6-1 shows the activity distribution for the faculty members in PSE. Table 6-2 shows the professional credentials of the faculty. Faculty resumes may be found in Appendix B. The size of the faculty (three tenure-track faculty members) is adequate for the current status of the program. Growth in the number of students majoring in PSE, research activity or outreach activity will place a strain on faculty availability for advising, consulting, etc.

Faculty Competencies

In the field of Paper Science and Engineering, professional registration is not required in most entry-level positions. There are, therefore, few to no Professional Engineers on the faculty for such programs. The variety of content required for the curriculum requires a faculty with diverse backgrounds to provide adequate coverage. The PSE Department at UWSP has such a faculty.

Ring has ample experience and knowledge in the areas of surface and colloid chemistry, paper physics and paper manufacture. His degrees include a B.S. in chemistry and

biology from the State University of New York at Albany, and M.S. and Ph.D. degrees from the Institute of Paper Chemistry. He has published in these areas, and has twenty-two years of experience in teaching his courses in the curriculum.

Biasca brings extensive knowledge and experience in pulping processes, paper manufacture, engineering topics and the use of computers for engineering tasks. She has a B.S. degree in Chemical Engineering from UCLA, and M.S. and Ph.D. degrees from the Institute of Paper Chemistry. She has published in her areas of focus and has nineteen years of experience on the faculty.

Guay is a graduate of the UWSP PSE program. He has a Ph.D. from the University of Maine at Orono. His industrial experience includes work with a contract engineering firm and management of a laboratory service provider for the pulp and paper industry. He brings this experience into his courses at every level.

Faculty Size

The current PSE faculty is comprised of three tenure-track professors: Gerard Ring, Karyn Biasca and Donald Guay. Ring and Biasca are tenured, full professors. Guay is an untenured assistant professor. Kelly Klaas, the department laboratory manager, has an academic staff appointment and assists with instruction in several courses. Resumes for these individuals are included in Appendix B. There are currently thirty-three declared PSE majors, giving an 11:1 student:faculty ratio.

Faculty members perform all academic and career advising for students. Students are assigned to advisors based on their year in the program. Guay currently advises the freshman and sophomore classes, Biasca advises the juniors and the students who are working in their co-op positions and Ring advises the seniors. This assignment of advisors allows more effective advising for the students. For example, Guay is responsible for ensuring that the sophomores (who are about to go to their off-campus co-op position) register for the appropriate course (COOP 001, 0 credits) so that they will maintain their status as continuing students without paying tuition. Biasca knows that the students who are returning to campus must register for PAPR 300 to satisfy the industrial internship requirement. These subtleties of advising will slip past the students if not advised properly.

All faculty members interact extensively with students, both inside and outside of the classroom. Class sizes are small, allowing students to receive individual attention from faculty. The small classes also allow faculty to use more intensive assignments, include more writing and oral presentations than would be practical with larger classes.

Opportunities for student-faculty activities outside of the classroom include an annual scholarship banquet, a spring banquet and many student organization activities (bowling, skiing, etc.). Depending on individual interests, faculty will join in with the students on many of these activities.

Students and faculty travel to professional and technical meetings as well, allowing faculty to model the role of professionals in the paper industry. For example, juniors and seniors attended the Technical Association of Pulp and Paper Industry (TAPPI) Engineering, Pulping and Environmental Conference in Jacksonville, FL in October 2007 accompanied by Guay. Students may also attend local technical events.

The faculty members enjoy the relationships that are possible with the small number of students currently in the program. The number of students is expected to increase due to improved recruiting efforts and a healthier paper industry. Significant increases in student numbers will put additional demands on the faculty, perhaps resulting in less intensive course work, less time for advising, etc.

Faculty Development

The PSE Department places high priority on faculty development. Faculty members are encouraged to choose their own path for improving their abilities while keeping the mission of the department in mind. The Paper Science Foundation provides monetary support for faculty travel to technical conferences to maintain currency in the field. The Dean of the College, the Provost and the Chancellor have also provided support for faculty to develop their understanding of ABET requirements and assessment methods.

All CNR faculty members are required to report their activities to the Dean of the College on an annual basis. The forms for the last three years for PSE faculty are included in the PSE ABET information web site. The highlights of these development activities for each faculty member are listed below, organized under the general headings of teaching, scholarship and service, with Ring having the additional “Administrative” category as department chair.

Ring

Teaching

- Integrated the paper machine into all my courses (PAPR 101, 355, 365 and 475).
- Had PAPR 355 students participate in CNR student research symposium by presenting a poster entitled “Theoretical Paper” describing a model sheet of with random fibers.

Scholarship

- Was awarded UW System Applied Research Grant for \$47,927 for “Optimizing the Quality of Paper Manufactured from Variable Quality Waste Paper” on May 23, 2006.
- Was awarded UW System Innovation Scholar Award for “Pulp Preprocessor” patent application.

Service

- Served on the Phi Kappa Phi Executive Committee as President.
- Served on the TAPPI Board of Directors.

Administrative

- Working with UWSP administrators, the paper industry (particularly the Wisconsin Paper Counsel), and Wisconsin state legislators funding for our laboratory manager position was secured.
- Awards were sought and obtained for Karyn Biasca (Teaching excellence), Carl Rasmussen (University Service Award), Michael Kocurek (Paper Industry International Hall of Fame, 2005 inductee).
- Worked with Chris Thomas and Randy Champeau to write a proposal for the “Wisconsin Institute of Sustainable Technology”. The proposal is now a four-college joint effort for UWSP.

Biasca

Teaching

- Attend annual UWSP Teaching Symposium
- Member of ASEE
- Pulp and paper outreach courses for paper industry employees

Scholarship

- Development of online learning tools
- Electronic portfolio project

Service

- ABET coordinator/liaison
- NCA/HLC Reaccreditation coordinator, Chair of Accreditation Steering Committee
- UWSP General Degree Requirement Subcommittee
- Program Assessment Coordinator

Guay

Teaching

- Attend annual UWSP Teaching Symposium
- Pulp and paper outreach courses for paper industry employees
- Co-developed PAPR 103 to teach students (Both majors and non-majors) about environmental issues in the pulp and paper industry

Scholarship

- Cellulosic biofuel development
- Fiber utilization to incorporate more recycled fiber
- Fiber length analysis techniques

Service

- Co-chair of General Education Policy Review Committee
- UWSP University Personnel Development Committee
- Past-chair of Process & Product Quality Division of TAPPI
- UWSP Student TAPPI/PIMA group advisor

Table 6-1. Faculty Workload Summary
Paper Science and Engineering, 2007-08

Faculty Member	FT or PT	Classes Taught (Course No./Credits), Semester (F=fall, S=spring)	Total Activity Distribution		
			Teaching	Research/Scholarly Activity	Other
Ring	FT	300/3, F+S 440/4, F 475/4, F 355/4, S 365/3, S	75%		25% Administrative
Biasca	FT	215/4, F 385/3, F 430/3, F 460/3, F 103/3, S 445/3, S 486/3, S	75%	15%	10% Administrative
Guay	FT	103/3, F 320/3, F 350/4, F 484/2, F 210/3, S 314/3, S 326/3, S 410/1, S	75%	20%	5% Administrative

Table 6-2. Faculty Analysis
Paper Science and Engineering

Name	Rank	Type of Academic Appointment TT, T, NTT	FT or PT	Highest Degree and Field	Institution from which Highest Degree Earned & Year	Years of Experience			Professional Registration/ Certification	Level of Activity (high, med, low, none) in:		
						Govt./Industry Practice	Total Faculty	This Institution		Professional Society	Research	Consulting /Summer Work in Industry
Ring	Prof	T	FT	PhD	Inst of Paper Chem, 1980	6	22	22	No	TAPPI – M	M	M
Biasca	Prof	T	FT	PhD	Inst of Paper Chem, 1989	3	19	19	No	TAPPI – L ASEE – L	M	M
Guay	Asst Prof	TT	FT	PhD	Univ Maine, 1999	4	4	4	No	TAPPI – H ASTM - M	M	M

TT = Tenure Track T = Tenured NTT = Non Tenure Track