SCML - Science Management and Leadership | Grad

SCML 5050 Communication for Professional Science Management and Leadership (3)

This course teaches effective ways to communicate -- both in writing and verbally -- with colleagues across disciplines, with business and corporate supervisors, and with the general public. Topics also include crisis management and dealing with difficult people. Preparing memos, slide show presentations, reports, and briefing papers will be practiced.

SCML 5100 Technical Writing for the Sciences (3)

Writing is a critical element of all aspects of science; it is particularly relevant to scientific proposals, technical reports, technical journalism as well as government and regulatory submissions. Essential to this skill is the ability to identify, describe and explain scientific concepts. This is a required expertise for the science manager. This course is designed to develop the scientific reporting, descriptive and explanatory skills necessary to be an effective manager in a scientific environment. The course will feature lectures and reading assignments on scientific writing, but will also embrace writing assignments and exercises in scientific journalistic and report writing. The use of scientific databases, journals and websites will also be explored. Students will be able to focus on any number of scientific writing topics, including, but not limited to, nature, technology, health, engineering, aeronautics, medicine or other areas. This course is designed to orient the student to the proper skills necessary to successfully complete writing assignments in required courses such as Regulatory and Quality Affairs and SCML Capstone. This course is expected to be completed within the first two semesters of the SCML program.

SCML 5590 Ethics and Social Responsibility in Science Management and Leadership (3)

This course examines the moral and social context of professional managers and leaders in science organizations. Topics include: moral, social, and legal issues in contemporary business management; ethical theories as frameworks for managerial decisions; corporate social responsibility; dilemmas of conscience for science managers; ethical issues in the workplace; morality and leadership; and codes of conduct and professional standards. Analysis and discussion of case studies comprise a significant portion of the class.

SCML 5700 Marketing and Comparative Analysis for Science Management and Leadership (3)

This course focuses on globalized marketing strategies largely focused on science-based industries, product management (including pricing and inventory control), SWOT analysis, competitive intelligence, branding, and methods of market research, channels of distribution, political risk factors, and export aspects. Students will also learn how to be effective participants of a focus group.

SCML 5800 Project Management (3)

Students will demonstrate the ability to manage science-based projects. They will learn to use current project planning tools to develop project plans that aid in bringing a project to completion on time and within budget. Special attention will be given to the WBS, cost, scope, time, and scheduling.

SCML 5850 Regulatory and Qualitative Affairs for Science Management and Leadership (3)

This course examines the philosophy, structure, and select guidelines and standards associated with principles of administrative law, intellectual property, regulatory standards, and quality assurance and quality control (QA/QC) organizations such as the USDA, US EPA, US FDA, US DOT, OSHA, EFSA , the OECD, ANSI, and ISO.

SCML 6000 Practical Application in Science Management and Leadership (3)

This capstone course will have the student carry out a well-defined team-based project including marketing and business plans for a new science-based company or other appropriate project. All aspects of the SCML curriculum will be included in the project. Each student and team will present their final paper to a panel. **Prerequisite**: Completion of all other courses in the SCML program.

Course Descriptions