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ABSTRACT

This publication lists, by state, those science communication courses and programs that appear to teach science communication for general audiences. Institutions offering science communication courses or programs are identified and the courses or programs are described. Information given in description of the courses or programs includes: (1) title; (2) enrollment; (3) predominant majors enrolled; (4) average number of students; (5) instructor; and (6) course or program focus and scope. Each person or program listed received a questionnaire seeking information about those six items. No attempt was made to seek evaluative information. The Directory lists 34 programs and 105 courses in 58 colleges and universities. Ten programs offer master's degrees and three offer doctorates. About 45 courses teach straight-forward science writing. Nine schools also offer science writing internships. (MR)

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DIRECTORY OF SCIENCE COMMUNICATION COURSES AND PROGRAMS

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DIRECTORY OF SCIENCE COMMUNICATION COURSES AND PROGRAMS

INTRODUCTION

Hardly a day goes by that a leading scientist or a prominent figure in public life does not decry the cultural chasm between scientists and the general public. In a society so dependent upon advances in science and technology, it is crucial to have a scientifically informed citizenry.

Increasing numbers of colleges and universities are offering courses and programs concerned with the communication of science and technology to the public. These courses often are diverse and have many different titles such as science writing, engineering communication, agricultural journalism, and environment and the media. They are offered at both the undergraduate and graduate levels and frequently are taught in science, engineering, and environmental departments as well as in journalism, humanities, and social science departments.

The Directory of Science Communication Courses and Programs has been compiled to provide a guide to educational activity in this rapidly expanding field.

The courses and programs listed in the Directory were obtained in several ways. First, notices were placed in appropriate professional journals and newsletters asking instructors to contact the science communication survey group. Second, in order to reach more scientists teaching such courses, a special registration desk was set up at the February 1977 meeting of the American Association for the Advancement of Science. Last, names were obtained of schools of journalism in the United States which had been identified previously as offering courses in science, technical, and agricultural communication.

Each person or program identified by these means received a questionnaire seeking information on the items listed in the Directory. No attempt was made to seek evaluative information on the courses and programs. Some courses are not included because they did not fit the criteria discussed below.

The Directory includes those courses and programs that appear to have a significant component devoted to teaching science communication to the general public, rather than to business, professional, or other specialized audiences. Our broad definition of science writing includes such areas as basic and applied science, engineering, health and medicine, and agricultural research.

A distinction usually is made between science communication, which is directed to general audiences, and technical communication, which is directed to professional, business, or other specialized audiences. Many technical communication courses and programs, however, include consideration of materials for general, non-specialized audiences. These have been included in the Directory where sufficient information was available. A compilation, "Academic Programs in Technical Communication," edited by T. E. Pearsall and F.J. Sullivan, 1976, is available from the Society for Technical Communication, 1010 Vermont Ave., N.W., Washington, DC 20005 (\$7.50 for non-members). Agricultural journalism, also treated frequently as a separate speciality, is included here where it fits the above criteria.

Courses and programs not specifically teaching science communication, such as those in the area of "technology and human values," are not included. A publication that describes teaching and research activities in this area is "Science, Technology, and Society: A Guide to the Field," available from the National Technical Information Service, U.S. Department of Commerce, P.O. Box 1553, Springfield, VA 22161 (order no. PB 262 487/AS \$13.50). Additionally, a survey of courses and programs in the field of ethical and value implications of science and technology is being conducted by the Office of Science Education of the American Association for the Advancement of Science.

Because the area of science communication has greatly increased in the past few years, we expected to and did encounter some difficulties in trying to identify all appropriate sources. We realize that some courses and programs inadvertently may not have been included. However, we feel that the present listing does represent a broad sample of educational activity in the field of science communication.

In the future, we plan to publish an updated and expanded version of the Directory. For this purpose we have provided an Additions/Corrections Form on page 46. Any changes you feel need to be made should be noted on the form, and these will be included in the next edition of the Directory.

We hope that the Directory of Science Communication Courses and Programs, with its listing of faculty members teaching these courses, will serve as a useful tool in promoting an exchange of ideas, information, and teaching methods among active workers in the field of science communication.

We thank the following organizations for their assistance: the Division of Journalism, Lehigh University; the DeWitt Wallace Fund, Inc. and the Writing Program, Massachusetts Institute of Technology; the National Science Foundation (grant to L.V.); the American Association for the Advancement of Science; and the National Association of Science Writers.

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York at Binghamton

February 1978

SUMMARY OF DIRECTORY RESPONSES

The Directory lists 34 programs and 105 courses in 58 colleges and universities. Most of the courses and programs teach communication skills rather than theory: typically science writing, sometimes more specifically environmental communication, agricultural journalism, engineering journalism, or health communication.

Programs

Ten programs in the Directory offer master's degrees and three offer doctorates:

<u>Institution</u>	<u>Program Title</u>	<u>Degree(s)</u>
Boston University	Science Communication	M.S.
Iowa State University	Science and Technical Writing	M.S.
Massachusetts Institute of Technology	Science Communication	M.S.
University of Maryland	Science Communication	M.A. (also B.S.)
University of Michigan	Environmental Communication	M.A., Ph.D. (also B.S.)
University of Minnesota	Science Journalism	M.A.
University of Missouri	Science Writing	M.A., Ph.D.
Texas Tech University	Health Communications	M.A.
University of Wisconsin	Agricultural Journalism	M.S., Ph.D. (also B.S.)
University of Wisconsin	University-Industry Research Science Writing Program	M.S.

Twenty-four undergraduate programs also are listed, offering majors, minors, or concentrations in scientific, environmental, agricultural, or technical journalism. Two of these programs, at Bowling Green State University and at Drexel University, currently are in the planning stages.

Nearly half (16) of the graduate and undergraduate programs listed were founded in the 1970s. The only programs in operation before 1960 were: Kansas State University, agricultural journalism (1915); Iowa State University, agricultural journalism (1905), home economics journalism (1927), science journalism (1945), and science and technical writing (1946); University of Wisconsin, agricultural journalism (1907), home economics communications (1950), and the University-Industry Research Science Writing Program (1956); North Dakota State University, technical journalism (1954); and Colorado State University, technical-business journalism (1958).

Enrollment in programs typically is fewer than 25 students, and in many cases, fewer than 10. However, there are exceptions, including the University of Wisconsin with 136 students in agricultural journalism, Oregon State University with 107 in technical journalism, and Iowa State University with 50-60 in science journalism.

Courses

About 45 of the courses in the Directory teach straightforward science writing, 15 for graduate students, 18 for undergraduates only, and the rest for both. Nine schools also offer science writing internships as courses or as full-time jobs for a summer or a semester. Six courses are specifically environmental writing, one is energy reporting. A few courses concentrate on issues or theory rather than skills: for example, Auburn University offers two communications courses for pharmacy majors; Columbia University a journalism course on ethical issues in science and environmental reporting; Lehigh University a politics of science course for science writing students; and Michigan Technological University a course on history and theory of communications in science and technology. Typically, enrollment in all types of courses is about 15.

The Role of Science Schools and Departments

Although the majority of courses and programs are located in journalism schools and departments, a striking number are coming from science, engineering, and environmental fields. Of the 15 institutions offering graduate or undergraduate

science or environmental communication programs, six, or more than one-third, are housed in schools of science, medicine, or natural resources. (Technical writing and agricultural journalism programs are in their own or journalism or humanities departments.) Of 35 institutions offering science and environmental writing courses, eleven--again almost one-third--are listed under schools in departments of science, engineering, or natural resources. Of the 105 courses listed in all, about half include science (or engineering, medical, or environment) students, and one-fourth are only for science students.

Although science writing has traditionally been the province of journalism educators, it clearly is becoming a concern of science and engineering faculties and students as well. Increasing opportunities to develop skills in communicating scientific and technical information to the public are becoming available to future scientists and engineers as well as to journalists.

ALABAMA

AUBURN UNIVERSITY
School of Pharmacy
Auburn, Alabama 36830

Course: Professional Communications I (PY 468)

Description: Nature, purpose, and process of communication for the health sciences. Interviewing, patient counseling, information dissemination, role playing.

Enrollment: Undergraduate

Predominant Majors: Pharmacy

Average Number of Students: 15-20

Offered: Each quarter

Instructor: William B. Shell, Office of Educational Development,
(205) 826-4037.

Course: Professional Communication II (PY 649)

Description: Same as above plus writing and acting out scenarios, on-site interactions, transactional analysis, and interpersonal relations.

Enrollment: Undergraduate

Predominant Majors: Pharmacy

Average Number of Students: 15-20

Offered: Every other quarter

Instructor: William B. Shell.

ARKANSAS

UNIVERSITY OF ARKANSAS
English Department
Fayetteville, Arkansas 72701

Course: Technical Writing (3053)

Description: An intensive examination of styles and formats used in technical and scientific writing.

Enrollment: Undergraduate

Predominant Majors: Science, engineering, and agriculture

Average Number of Students: 18

Offered: Each semester

Instructor: Charles R. Fenno, CC 333, (501) 575-4303.

CALIFORNIA

CALIFORNIA STATE UNIVERSITY, HAYWARD
Mass Communications Department
Hayward, California 94542

Course: Environmental Journalism (Mass Comm 7011)

Description: Ten-week session covering science and environmental writing for magazines and newspapers. Prerequisites include basic reporting and science courses. Students may repeat course for a total of 12 credits.

Enrollment: Undergraduate

Predominant Majors: Journalism and science

Average Number of Students: New course

Offered: Each quarter

Instructor: Larry Wood, Meiklejohn Hall, (415) 881-3292.

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE
Department of Journalism
Northridge, California 91330

Course: Tutorial: Science Reporting (Journ 498)

Description: Review of the literature on science reporting, analysis of science stories in the mass media, and preparation of a science news story.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 5

Offered: Each semester

Instructor: Lawrence Schneider, Van 37 Annex 103, (213) 885-3145 or 3135.

HUMBOLDT STATE UNIVERSITY
Journalism Department
Arcata, California 95521

Course: Environmental Communication Seminar (Journ 190)

Description: History of environmental communications and analysis of current environmental media as freelance markets. Two major writing assignments include rewriting a technically written article into popularized style and writing a magazine article or newspaper feature.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, science, and natural resources

Average Number of Students: 20

Offered: Irregularly

Instructor: Mark A. Larson, (707) 826-3637.

HUMBOLDT STATE UNIVERSITY - Continued

Course: Technical Writing (Journ 32)

Description: Technical report writing, including letters, informal reports or descriptions, formal or journal articles, research proposals, and environmental impact statements.

Enrollment: Undergraduates

Predominant Majors: Science and natural resources

Average Number of Students: 25

Offered: Each quarter

Instructor: Mark A. Larson, Alann Steen, Marilyn Hardwig.

SAN DIEGO STATE UNIVERSITY

Department of Journalism
San Diego, California 92182

AND

KPBS-TV SCIENCE OFFICE

San Diego, California

Course: Internships for Journalism Students in Science Communications for Public Television

Description: Students participate in all production phases of television programs for Western Public Television. Focus is on science, technology, and public policy.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism

Average Number of Students: 2

Offered: As requested by students; up to two each semester

Instructor: Frederick C. Whitney, San Diego State, (714) 286-6415, and Jeffrey W. Kirsch, KPBS-TV Science Office.

STANFORD UNIVERSITY

Department of Communication
Stanford, California 94305

Course: Internship (Comm 185)

Description: Internship placement with science organization or medical or engineering firm. Students write press releases and internal material for lay and professional readers. Guidance is by instructor and firm's personnel.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, engineering, and human biology

Average Number of Students: 3-4

Offered: Each semester

Instructor: Marion Lewenstein, Redwood Hall, (415) 497-0702.

Course: The Flow of Scientific and Technical Information (Comm 128/228)

Description: Examines "horizontal" (scientist-to-scientist) and "vertical" (scientist-to-public) communication.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism and science

Average Number of Students: 12

Offered: Each year

Instructor: William Paisley, D-11 Cypress Hall, (415) 497-2507.

UNIVERSITY OF CALIFORNIA AT BERKELEY
School of Journalism
Berkeley, California 94720

Course: Reporting on Science and the Environment (Journ 226)

Description: Ten-week seminar in which students report and write on current topics in science and the environment.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 12

Offered: Each year

Instructor: James Spaulding, 697 Evans Hall, (415) 642-3383.

UNIVERSITY OF CALIFORNIA, SANTA CRUZ
Crown College
Santa Cruz, California 95064

Course: Science Writing (NS 101)

Description: An introductory course in writing science radio scripts, press releases, news stories, features, and magazine articles.

Enrollment: Undergraduate and graduate

Predominant Majors: Science

Average Number of Students: 15

Offered: Each quarter

Instructor: John Wilkes, (405) 429-2848.

Course: Science Writing Workshop (NS 102)

Description: Further development of skills learned in Science Writing (NS 101); writing and editing the UC Coastal Marine Laboratory Newsletter and Science Notes from UC Santa Cruz.

Enrollment: Undergraduate and graduate

Predominant Majors: Science

Average Number of Students: 15

Offered: Each quarter

Instructor: John Wilkes.

COLORADO

COLORADO STATE UNIVERSITY
Department of Technical Journalism
Fort Collins, Colorado 80523

PROGRAM: Technical-Business Journalism

Description: Area concentration that prepares students for work in technical writing and editing for business and trade publications, and industry, government, and educational institutions.

Year Founded: 1958

Number of Students: 50

Degree Offered: B.A. in Technical Journalism

Director: David G. Clark, (303) 491-6310.

COLORADO STATE UNIVERSITY - Continued

COURSES

Course: Basic Technical Communication (JT 300-A)

Description: Principles of technical communication taught from a perspective of communication theory as well as practical application.

Enrollment: Undergraduate

Predominant Majors: Mixed

Average Number of Students: 5 sections of 30 students each

Offered: Each semester

Instructor: David G. Clark.

Course: Technical Writing and Editing (JT 461)

Description: Stresses applied technical writing and editing.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 20

Offered: Each year

Instructor: H. S. Bruce Linn, (303) 491-6310.

UNIVERSITY OF COLORADO

Department of Physics and Astrophysics
Boulder, Colorado 80309

Course: Seminar in Science Writing (Physics 500 & Journ 599)

Description: Consideration of problems of public understanding of scientific and technological issues through writing news stories or articles. Students report on science lectures, prepare briefings, and interview scientists.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism and science

Average Number of Students: 12

Offered: Each semester

Instructor: Joann Temple Dennett, Duane Physics E-032, (303) 492-6952.

DISTRICT OF COLUMBIA

GEORGE WASHINGTON UNIVERSITY

Journalism Department
Washington, D.C. 20052

Course: Science Writing (for the Mass Media)

Description: Practice in writing about science for the mass media: translation of journal articles, coverage of press conferences, news and feature articles.

Enrollment: Undergraduate

Predominant Majors: Journalism and science

Average Number of Students: 12

Offered: Each year

Instructor: Warren Burkett, (202) 676-6225.

FLORIDA

UNIVERSITY OF FLORIDA

College of Journalism and Communications
Gainesville, Florida 32611

PROGRAM: Agricultural Journalism

Description: Trains students to communicate with a specific audience through various media and programs.

Year Founded: Not given

Number of Students: 6-7

Degree Offered: B.S. in Journalism

Director: Charles Wellborn, John Griffith, 234 Stadium, (904) 392-1124.

ILLINOIS

NORTHWESTERN UNIVERSITY

Medill School of Journalism
Evanston, Illinois 60201

Course: Science and Technology Seminar (Journ D15-0)

Description: Seminar that provides students with an historical and philosophical background in a broad spectrum of the sciences. It also provides an exposure to scientific and technological problems and developments that journalists must interpret for the public.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 12-15

Offered: Each year

Instructor: Benjamin H. Baldwin, (312) 492-5662.

Course: Reporting of Public Affairs (Science & Technology) (Journ D95-0)

Description: Gathering and writing the news of technology and the sciences; placing news in the context of society and making it understandable to a mass audience. This course can only be taken with D15-0, listed above.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 12-15

Offered: Each year

Instructor: Benjamin H. Baldwin.

INDIANA

BALL STATE UNIVERSITY
Department of Journalism
Muncie, Indiana 47306

Course: Technical Writing and Editing

Description: Methods and techniques of technical and scientific writing and editing. Familiarization with engineering and space-age terminology, with emphasis on clarity and translation of technical terms to lay language.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism

Average Number of Students: 16

Offered: Each year

Instructor: Robert Heintzelman, (317) 285-1235.

INDIANA UNIVERSITY
School of Journalism
Bloomington, Indiana 47401

Course: Seminar: Science Writing (Journ 554)

Description: Learning to gauge what sort of scientific information should be the province of the mass media and how accurately and effectively to transform the information into news and feature stories.

Enrollment: Graduate

Predominant Majors: Journalism and science

Average Number of Students: 10-15

Offered: Each year

Instructor: Richard Gray, Director, Ernie Pyle Hall, (812) 337-9247.

PURDUE UNIVERSITY
School of Science
West Lafayette, Indiana 47907

PROGRAM: General Science Program: Science Writing Option

Description: A broad program of preparation in the life sciences, physical sciences, and mathematics, coupled with 18 hours in mass communications, science writing, news writing, and related courses. Science students must major in one particular area of science to which they add the Science Writing Option as a minor concentration.

Year Founded: 1967

Number of Students: 10 in Science Writing Option

Degree Offered: B.S. in General Science

Director: James Yaekel, Mathematical Sciences Building, (317) 494-8849.

PURDUE UNIVERSITY - Continued

COURSES

Course: Science Writing (Comm 453)

Description: Intensive practice in interpreting and writing about science for the general public. Various styles of presentation and characteristics and constraints of the various communication media.

Enrollment: Undergraduate

Predominant Majors: Journalism, science, engineering

Average Number of Students: 24

Offered: Each year

Instructor: Leon E. Trachtman, Department of Communications, (317) 749-2505

Course: Communication in the Scientific Community (Comm 561)

Description: The formal and informal communication modes and channels of the scientific community, and the reciprocal relations between science's philosophical, social, economic, and political structure and its communication behavior.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, social science

Average Number of Students: 20

Offered: Each year

Instructor: Leon E. Trachtman.

IOWA

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

Department of Journalism and Mass Communication.
Ames, Iowa 50011

PROGRAM: Agricultural Journalism

Description: A major program, combining the study of journalism and agriculture, designed to prepare students for employment in the mass media, in public information, and in corporate or agency communication.

Year Founded: 1905

Number of Students: 35

Degree Offered: B.S. in Agricultural Journalism

Director: J. W. Schwartz, (515) 294-4340.

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY - Continued

PROGRAM: Engineering Journalism

Description: A program combining the study of journalism and engineering, to prepare students for employment in the mass media, in public information, and in corporate or agency communications. Offered in cooperation with the Department of Industrial Engineering.

Year Founded: 1966

Number of Students: 35

Degree Offered: B.S. in Agricultural Journalism

Director: J. W. Schwartz.

PROGRAM: Science Journalism

Description: A program combining the study of journalism and the mathematical and natural sciences, to prepare students for employment in the mass media, in public information, and in corporate or agency communications.

Year Founded: 1945

Number of Students: 50-60

Degree Offered: B.S. in Journalism and Mass Communication

Director: Jerome Nelson, (515) 294-4340.

PROGRAM: Graduate Program in Science and Technical Writing

Description: For students with an interest in preparing technical or scientific material from the sciences, agriculture, engineering, or home economics for a variety of audiences.

Year Founded: 1946

Number of Students: 6-8

Degree Offered: M.S. in Journalism and Mass Communication

Director: J. K. Hvistendahl, (515) 294-4340.

PROGRAM: Home Economics Journalism

Description: A program combining the study of journalism and home economics, to prepare students for employment in the mass media, in public information, and in corporate or agency communications.

Year Founded: 1927

Number of Students: 35-40

Degree Offered: B.S. in Home Economics Journalism

Director: LaRue Pollard, (515) 294-4340.

COURSES

Course: Journalistic Practice for Scholar and Scientist (JL&MC 526)

Description: Reporting, writing, and editing for the mass media, with special attention to problems of the scholar and scientist using the media.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 12-15

Offered: Each year

Instructor: Richard L. Disney, with Jerome Nelson & J. T. Emmerson, (515) 294-4340.

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY - Continued

Course: Specialized Reporting (JI&MC 527 and 528)

Description: A two-quarter sequence course on reporting, writing, and editing, for the communicator who mediates between scholar, scientist, and various publics.

Enrollment: Graduate

Predominant Majors: Journalism, science, agriculture

Average Number of Students: 8-12

Offered: Each year

Instructor: Richard L. Disney with Jerome Nelson and J. T. Emmerson.

KANSAS

KANSAS STATE UNIVERSITY

Department of Journalism and Mass Communications
Manhattan, Kansas 66506

PROGRAM: Agricultural Journalism

Description: A program combining a major in journalism with a Bachelor's degree in agriculture, offered jointly with the College of Agriculture. Courses include news and magazine writing, public information, and scientific writing.

Year Founded: 1915

Number of Students: 30

Degree Offered: B.S. in Agriculture

Director: Donald Holt, (913) 532-6890.

COURSES

Course: Agricultural Journalism

Description: A survey of agricultural information techniques and methods of working with the mass media.

Enrollment: Undergraduate

Predominant Majors: Agriculture

Average Number of Students: 70

Offered: Each semester

Instructor: Donald Holt.

Course: Problems in Agricultural Publications (035-610)

Description: Writing for trade and popular agricultural publications in the area of individual student's competence, with emphasis on content of stories and principles involved in reader's understanding and accepting content expressed.

Enrollment: Undergraduate and graduate

Predominant Majors: Agriculture

Average Number of Students: 10

Offered: Each year

Instructor: Lowell Brandner, College of Agriculture, (913) 532-6147.

UNIVERSITY OF KANSAS
School of Journalism
Lawrence, Kansas 66045

PROGRAM: Science Writing

Description: The School of Journalism and the Departments of Microbiology, Chemistry, Biological Sciences, and Geology offer a program for students with a special interest in science writing. Thirty hours of journalism are required, with 40 hours in the natural sciences. The student completes one research project in the science area in which he has placed the most emphasis.

Year Founded: 1968

Number of Students: 3

Degree Offered: B.S. in Journalism

Director: Lee F. Young, Flint Hall, (913) 864-3481.

COURSES

Course: Science Writing for the Media (Journ 656)

Description: Concentrated study and intensive writing so that students may learn to gather and write the news of medicine, science, and technology, and make that news understandable to a mass audience.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 5

Offered: Occasionally

Instructor: Varies.

MARYLAND

UNIVERSITY OF MARYLAND
College of Journalism
College Park, Maryland 20742

PROGRAM: Science Communication

Description: Students prepare for media science writing through new-editorial sequence or for public information writing through public relations sequence. Program includes course in science writing, courses in one of these sequences, and minor in science and supporting work in mathematics and statistics. This area concentration is offered in cooperation with the Division of Mathematical and Physical Sciences and Engineering, the Division of Agricultural and Life Sciences, and the Individual Studies Degree Program. Both undergraduate and graduate degrees are offered and summer and regular internships are available with government agencies in Washington, D.C.

Year Founded: 1970

Number of Students: 10-25

Degree Offered: B.S. in Journalism; M.A. in Journalism

Director: James E. Grunig, (301) 454-5772.

UNIVERSITY OF MARYLAND * Continued

COURSES

Course: Journalism for Science and Technology (Journ 380)

Description: Study of and practice in the basic techniques of writing and editing scientific and technical material both for the general audience and for the specialist.

Enrollment: Undergraduate

Predominant Majors: Journalism, science

Average Number of Students: 20

Offered: Each year

Instructor: James E. Grunig.

Course: Science Communication (Journ 680)

Description: Advanced professional training in science reporting and writing for the mass media, and in technical communication to specialized audiences. Application to science writing of communication theory and history and philosophy of science.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 6-10

Offered: Each year

Instructor: James E. Grunig.

MASSACHUSETTS

BOSTON UNIVERSITY

School of Public Communication
Boston, Massachusetts 02215

PROGRAM: Science Communication

Description: Minimum of 48 credits spread over three semesters; eight required courses in print journalism, science and public policy, and broadcasting plus electives from within the program, from broadcasting, journalism, film, and public relations departments, or from science departments within the university. Students also intern one day per week second and third semesters and full-time in the summer. The program sponsors the Science in New England news service, to which students contribute stories.

Year Founded: 1967

Number of Students: 25

Degree Offered: M.S. in Journalism

Director: Harold G. Buchbinder, 640 Commonwealth Ave., (617) 353-3470.

BOSTON UNIVERSITY - Continued

COURSES

Course: Techniques of Journalistic Writing I and II (SC701, SC702)

Description: Writing about science and technology for newspapers and news sections of consumer magazines. For graduate students with no journalism background.

Course: Science News Writing Laboratory (SC720)

Description: Lecture and laboratory; students attend press conferences and meetings as accredited reporters for Science in New England news service.

Course: Science in New England I and II (SC721, SC722)

Description: Accredited as staff reporters, students are responsible for their articles for the news service from inception to distribution.

Course: Audiovisual Presentations of Scientific and Technical Material I and II (SC723, SC724)

Description: Theory and techniques of printing, photography, film, sound recording, television, radio, diazo reproduction, animation, and exhibits, and special processes such as holography and time-lapse photography.

Enrollment: Graduate

Predominant Majors: Science, engineering, pre-med/dent

Average Number of Students: 15

Offered: Each semester

Instructor: Alex Ushakoff, Jr., Center for Communications Inc., 110 Cabot St., Beverly, Massachusetts 01915, (617) 922-3773.

Course: Community and Corporate Information Expositions (SC725)

Description: Theory and practice of combining different forms of communication techniques into unified exhibits that explain issues, problems, policies, new products or processes to selected segments of the general public or to scientists and engineers.

Enrollment: Graduate

Predominant Majors: Science, engineering, pre-med/dent

Average Number of Students: 15

Offered: Each semester

Instructor: Alex Ushakoff, Jr.

Course: Medical and Demographic Reporting (SC735)

Description: Gives science writers an understanding of critical issues and processes within contemporary health care delivery systems.

Course: Science Reporting for Radio (SC740)

Description: Scriptwriting, interviewing, editing, and production techniques.

HARVARD UNIVERSITY

Department of Continuing Education
Cambridge, Massachusetts 02138

Course: Advanced Medical Writing

Description: Workshop to enable the beginning medical or science writer to translate journal material and meeting coverage for the lay reader.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, science, social science

Average Number of Students: 24

Offered: Each semester

Instructor: John M. Langone, Holyoke Center, (617) 495-4024.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Department of Humanities
Cambridge, Massachusetts 02139

PROGRAM: Science Writing

Description: A series of science writing courses to improve communication skills of students planning science and engineering careers, and to provide pre-professional training for students considering media careers.

Year Founded: 1977

Director: Rae Goodell, Writing Program, Room 14E 310E, (617) 253-4069.

COURSES

Course: Science Writing (21.73)

Description: Writing for the general public on topics in science, engineering, medicine, environment; overview of journalistic traditions and politics of science; guest lectures from a variety of print and broadcasting media.

Enrollment: Undergraduate and graduate

Predominant Majors: Science, engineering

Average Number of Students: 15

Offered: Each semester

Instructor: Rae Goodell.

Course: Science Writing Internship

Description: Part-time internships arranged with Boston-area media for students interested in developing advanced science writing skills; weekly seminars and a final report.

Enrollment: Undergraduate and graduate

Predominant Majors: Science, engineering

Average Number of Students: New course

Offered: Each year

Instructor: Rae Goodell.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
School of Science
Cambridge, Massachusetts 02139

PROGRAM: Science Communication

Description: A graduate program in science communication in the Inter-disciplinary Science Program of the School of Science. Students devise individualized programs of science and communication courses.

Year Founded: 1977

Director: John M. Buchanan, Department of Biology, Room 6-219, (617) 253-5723.

SUFFOLK UNIVERSITY
Journalism Department
Boston, Massachusetts 02114

PROGRAM: Journalism and Science Communication

Description: This area concentration is for students with a strong science interest, seeking careers as journalists covering the science field. It includes 24 hours of journalism core courses, 6 hours of science communications, and 12 hours of science electives in biology, chemistry, or physics. Another area concentration, Journalism and Technical Communications, is offered for students seeking careers in technical communication.

Year Founded: 1975

Number of Students: 8

Degree Offered: B.S. in Journalism

Director: Malcolm J. Barach, (617) 723-4700.

COURSES

Course: Introduction into Science Communication (Journ 2.6)

Description: Basic examination of theories and techniques of writing and editing scientific articles for general news media. The relationship of the journalist to the scientific community is studied.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 12-15

Offered: Alternate years

Instructor: James Cornell, (617) 723-4700.

Course: Science Communication in Modern Society (Journ 3.2)

Description: Advanced examination of writing and editing scientific material for general audiences: science films, science for children, information services for science. Particular problems and challenges of the science communicator.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 10-15

Offered: Alternate years

Instructor: James Cornell.

SUFFOLK UNIVERSITY - Continued

Course: Introduction to Technical Communication (Journ 3.9)

Description: An overview of the methods and media used in communicating scientific, medical, and industrial information. Emphasis on the tools and techniques.

Enrollment: Undergraduate

Predominant Majors: Journalism, science.

Average Number of Students: 10-15

Offered: Alternate Years

Instructor: James Cornell.

Course: Technical Communications: Principles and Procedures. (Journ 4.0)

Description: Advanced studies in technical writing and editing, with emphasis on independent projects and use of supplemental media such as film, video tape, and slides.

Enrollment: Undergraduate

Predominant Majors: Journalism, science

Average Number of Students: 10-15

Offered: Alternate years

Instructor: James Cornell.

MICHIGAN

MICHIGAN STATE UNIVERSITY
School of Journalism
East Lansing, Michigan 48823

Course: Science Writing (CAS 492)

Description: Techniques of writing on science topics for the mass media.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 12-20

Offered: Each year

Instructor: Gail L. Barwis, Linton Hall, (517) 353-6430.

MICHIGAN TECHNOLOGICAL UNIVERSITY
Humanities Department
Houghton, Michigan 49931

PROGRAM: Scientific and Technical Communication

Description: Students take 45 hours of communication courses, 45 hours in a basic scientific or technological area, 96 hours in general education. Primarily technical communication, but with some training oriented toward general audiences. Communication courses include technical writing, film and TV production, introduction to media, and print; film, and broadcasting laboratories; also history and philosophy of science.

Year Founded: 1965

Number of Students: 55

Degree Offered: B.A. in Liberal Arts

Director: Philip M. Rubens, (906) 487-2016.

COURSES

Course: History and Theory of Communications in Science and Technology (A 22)

Description: History of communications, print to electronic media; theory of communications in science and technology; study of specialized forms of communication from scientific journals, trade and professional magazines, industrial films, educational cassettes, and technical reports.

Enrollment: Undergraduate

Predominant Majors: Mixed

Average Number of Students: 15

Offered: Each quarter

Instructor: Philip M. Rubens.

UNIVERSITY OF MICHIGAN
College of Engineering
Ann Arbor, Michigan 48109

PROGRAM: Professional Communications Option

Description: An undergraduate interdisciplinary engineering program with an option in technical and professional communication; graduates are expected to enter engineering, management, and communications fields. About 15 courses provide introductory and advanced work primarily in technical writing, but several courses include training in communicating to general audiences.

Year Founded: 1976

Number of Students: Anticipate 2 graduates per year

Degree Offered: B.S. in Engineering

Director: Dwight W. Stevenson, Department of Humanities, (313) 764-1420.

UNIVERSITY OF MICHIGAN - Continued

COURSES

Course: Communication Science: Skills for Social Change (Humanities 489)
Description: For students interested in communicating scientific and technical information to the general public and to decision makers so that they can participate effectively in policy decision-making.

Enrollment: Undergraduate and graduate
Predominant Majors: Science
Average Number of Students: 10-15
Offered: Each year
Instructor: Dwight W. Stevenson.

Course: Seminar in Writing and Speaking (Humanities 497)
Description: Designed to develop a detailed knowledge of two theories of argument--Aristotelian and Rogerian--and a high level of skill in using the former. Particular attention is paid to arguments of fact and policy.

Enrollment: Undergraduate and graduate
Predominant Majors: Engineering
Average Number of Students: 45
Offered: Each semester
Instructor: Richard E. Young, (313) 764-1425.

Course: Scientific and Technical Communication (Humanities 499)
Description: Trains students of science and engineering to write and speak about design and research problems in terms that satisfy both specialists and non-specialists. Students present a series of short explanatory papers and speeches leading up to a final formal report and public lecture.

Enrollment: Undergraduate and graduate
Predominant Majors: Engineering
Average Number of Students: 45
Offered: Each semester
Instructor: Thomas M. Sawyer, (313) 764-1420.

UNIVERSITY OF MICHIGAN
School of Natural Resources
Ann Arbor, Michigan 48109

PROGRAM: Environmental Communication

Description: Program to assist students in developing environmental communication skills.

Year Founded: 1971
Number of Students: 35
Degree Offered: B.S., M.A., Ph.D. in Environmental Communication
Director: Ronald Rollet, Samuel Trask Dana Building, (313) 764-1410.

UNIVERSITY OF MICHIGAN - Continued

COURSES

Course: Mass Media and the Environment (NR 376/676)

Description: Analyzes the environmental content of the mass media in terms of its origins in media structure and processes, and its impact on audience behavior. Through readings, discussions, and examinations, students evaluate the media as tools of mass environmental education and suggest ways of improvement.

Enrollment: Undergraduate and graduate

Predominant Majors: Natural resources

Average Number of Students: 50

Offered: Each year

Instructor: Ron Rollet.

Course: Writing About Environment (NR 476)

Description: Discussion of and practice in the skills of writing about the environment for non-scientific audiences: press releases, pamphlets and magazine articles. Includes analysis of the performance of contemporary environmental writers.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, natural resources

Average Number of Students: 30

Offered: Each year

Instructor: Ron Rollet.

MINNESOTA

ST. OLAF COLLEGE

Departments of English and Mathematics
Northfield, Minnesota 55057

Course: Expository Writing (Eng. -51)

Description: Theory and application of writing skills, with special section devoted to science writing.

Enrollment: Undergraduate

Predominant Majors: Science, pre-med/dent, computer science

Average Number of Students: 20

Offered: Bi-yearly

Instructor: Lynn Arthur Steen (Mathematics) and Mary E. Steen (English),
(507) 663-3114.

UNIVERSITY OF MINNESOTA

**School of Journalism and Mass Communication
Minneapolis, Minnesota 55455**

PROGRAM: Science Journalism

Description: Master's program in mass communication, concentrating on professional training for careers in writing and interpreting scientific information for public audiences. Emphasis on writing for print media. Courses in writing, theory of mass communication, and a chosen support field in the social or physical sciences.

Year Founded: 1966

Number of Students: About 3 per year

Degree Offered: M.A. in Mass Communication (Science Journalism specialty)

Director: Phillip J. Tichenor, 35 Murphy Hall, (612) 376-7104.

COURSES

Course: Specialized Reporting: Social and Physical Sciences (Mass Comm 5133)

Description: Role of journalistic communication in science; scientist-journalist relationships; communicating results of scientific investigation to public, specialized audiences, and industry.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, agriculture, home economics

Average Number of Students: 14-20

Offered: Each year

Instructor: Phillip J. Tichenor.

Course: Interpretation of Science and Technology (Mass Comm 5143)

Description: Reporting and interpretation of scientific research and technological development for mass and specialized media; science content in media; audience impact; opinion writing in science and technology.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism

Average Number of Students: 10

Offered: Each year

Instructor: Phillip J. Tichenor.

UNIVERSITY OF MINNESOTA, DULUTH

**Department of English
Duluth, Minnesota 55812**

Course: Internship in Writing (Engl 5115)

Description: Students write for businesses or agencies involved in the subject matter of their majors. Offered within a program including a minor in English and courses in scientific and social science writing.

Enrollment: Undergraduate and graduate

Predominant Majors: Humanities

Average Number of Students: Not available

Offered: Each quarter

Instructor: Kenneth Risdon, Coordinator of Writing Programs, H-435
(218) 726-8131.

MISSOURI

UNIVERSITY OF MISSOURI
School of Journalism
Columbia, Missouri 65201

PROGRAM: Science Writing

Description: At the M.A. level, Science Writing is an area concentration, including courses in journalism and other departments, such as engineering, biological sciences, medicine, and law. At the doctoral level, Science Communications can be one of three required areas. Theory courses are emphasized, combined with courses in science departments. Internships with science publications in New York and Washington, D.C. are available.

Year Founded: 1966

Number of Students: 15

Degree Offered: M.A. in Journalism; Ph.D. in Journalism

Director: Joye Patterson, 115 Walter William, (314) 882-4852.

COURSES

Course: Science Writing (316)

Description: Refining skills in writing about science for the mass media and exploring the relationships of science, the mass media, and society.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 10-15

Offered: Each semester

Instructor: Joye Patterson.

NEW HAMPSHIRE

DARTMOUTH COLLEGE
Department of English
Hanover, New Hampshire 03755

Course: Environmental Journalism (Environmental Studies 82)

Description: How to write clear and interesting articles on environmental issues. The possibility exists for publication of successful articles.

Enrollment: Undergraduate

Predominant Majors: Science

Average Number of Students: 10

Offered: Each year

Instructor: Noel Perrin, (603) 646-2329.

NEW YORK

CLARKSON COLLEGE OF TECHNOLOGY
Department of Humanities
Potsdam, New York 13676

PROGRAM: Technical Communications Concentration

Description: Primarily technical communication, but with some training in communicating to general audiences. Fifteen courses include technical writing, business and professional speaking, publications management, communications theory, graphics, letter writing, and science communication.

Year Founded: 1976

Number of Students: 15

Degree Offered: B.S. in Humanities

Director: Bradford Broughton and Mary M. Lay, (315) 268-6485

COURSES

Course: Technical Journalism (HU211)

Description: Includes news writing, radio-TV script writing, and writing for house organs and magazines, for both general and technical audiences.

Enrollment: Undergraduate

Predominant Majors: Mixed

Average Number of Students: 10-20

Offered: Each year

Instructor: Jerry Gravander, (315) 268-6617.

Course: Mass Media, Technical Communication, and Society (HU291)

Description: Readings and analysis of modern media, and their influence on political, economic, scientific, and technological audiences.

Enrollment: Undergraduate

Predominant Majors: Mixed

Average Number of Students: 30

Offered: Each year

Instructor: Mary M. Lay, (315) 268-6437.

COLUMBIA UNIVERSITY
Graduate School of Journalism
New York, New York 10027

Course: Science/Medicine/Environment Writing

Description: Study of new issues in science/medicine/environment reporting, and writing for print and broadcast media.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 12

Offered: Each year

Instructor: Kenneth K. Goldstein, (212) 280-4718 or 280-2997.

COLUMBIA UNIVERSITY - Continued

Course: New Issues in Science Writing

Description: Study of ethical implications of certain science/medicine/environment stories.

Enrollment: Undergraduate and graduate

Predominant Majors: Mixed

Average Number of Students: 15

Offered: Summer session only

Instructor: Kenneth K. Goldstein.

**CORNELL UNIVERSITY-NEW YORK STATE
COLLEGE OF AGRICULTURE AND LIFE SCIENCES
Department of Communication Arts
Ithaca, New York 14853**

Course: Technical and Scientific Writing and Editing (Comm. Arts 314)

Description: Develops skills in writing and editing scientific and technical information for clarity, accuracy, and appropriate format. Writing reports, brochures, and articles.

Enrollment: Undergraduate and graduate

Predominant Majors: Mixed

Average Number of Students: 60-90

Offered: Each semester

Instructor: Jane E. Hardi, 304 Roberts Hall, and A. M. Wilkinson, 416 Warren Hall, (607) 256-2171.

**NEW YORK UNIVERSITY
Department of Journalism
Washington Square
New York, New York 10003**

Course: Science Writing (V54.0075 and G54.2008)

Description: Methods of popularizing scientific, technical, and medical information for the mass media, with emphasis on producing work that meets the standards of professional publication or broadcast.

Enrollment: Undergraduate (V54.0075) and graduate (G54.2009)

Predominant Majors: Journalism

Average Number of Students: 10-15

Offered: Each year

Instructor: Edward Edelson, 1021 Main Building, (212) 598-3791.

POLYTECHNIC INSTITUTE OF NEW YORK
Department of Humanities
Brooklyn, New York 11201

PROGRAM: Scientific/Technical Writing and Journalism

Description: A career-oriented program to prepare students as scientific/technical writers and journalists.

Year Founded: 1975

Number of Students: 12

Degree Offered: B.S. in Humanities with a concentration in Scientific/Technical Writing in Journalism

Director: Donald Hockney, (212) 643-8833.

COURSES

Course: News Writing (HU 108)

Description: Journalistic practice with emphasis on topics dealing with science and technology.

Enrollment: Undergraduate

Predominant Majors: Science, engineering, scientific/technical writing and journalism

Average Number of Students: 20

Offered: Each year

Instructor: Duane DeVries, (212) 643-8661.

Course: Feature Writing (HU 109)

Description: Theory and practice of writing short or moderate length magazine articles with an emphasis on the scientific/technical article.

Enrollment: Undergraduate

Predominant Majors: Scientific/technical writing and journalism

Average Number of Students: 20

Offered: Each year

Instructor: Donald Hockney.

Course: Basic Report Writing I (HU 110)

Description: Application of fundamentals of report writing to short scientific and technical writing forms such as the short scientific and technical paper, technical correspondence, the process report, technical description, and the abstract.

Enrollment: Undergraduate and graduate

Predominant Majors: Science, engineering, scientific/technical writing and journalism

Average Number of Students: 40 (2 sections)

Offered: Each year

Instructor: Jacob Kaplan, (212) 643-8661.

POLYTECHNIC INSTITUTE OF NEW YORK 7 Continued

Course: Basic Report Writing II (HU 111)

Description: Application of fundamentals of report writing to longer scientific and technical forms such as the technical article, analysis report, instructional manual, proposal and scientific paper.

Enrollment: Undergraduate and graduate.

Predominant Majors: Science, engineering, scientific/technical writing and journalism

Average Number of Students: 40 (2 sections)

Offered: Each year

Instructor: Jacob Kaplan.

Course: Public Speaking (HU 121)

Description: Public speaking and oral presentations with an emphasis on scientific and technical topics.

Enrollment: Undergraduate

Predominant Majors: Science, engineering, scientific/technical writing and journalism

Average Number of Students: 20

Offered: Each year

Instructor: Duane DeVries.

Course: Special Projects in Communications (HU 150)

Description: Guided study in an area of interest in the field of scientific and technical communication.

Enrollment: Undergraduate

Predominant Majors: Scientific/technical writing and journalism

Average Number of Students: Not given

Instructor: Donald Hockney.

Course: Science and Literature (HU 213)

Description: Examination of literary merits of scientific literature.

Enrollment: Undergraduate

Predominant Majors: Science, engineering, scientific/technical writing and journalism

Average Number of Students: 30

Offered: Each year

Instructor: Bernard Rechtschaffen, (212) 643-2817.

QUEENSBOROUGH COMMUNITY COLLEGE

Department of English

Bayside, New York 11364

Course: Technical Report Writing (EN 211)

Description: Expository writing for technology students and others interested in science communication.

Enrollment: Undergraduate

Predominant Majors: Mixed

Average Number of Students: Not available

Offered: Each year

Instructor: Philip D. Segal, (212) 631-6302 3/4.

ST. BONAVENTURE UNIVERSITY
Department of Mass Communication
St. Bonaventure, New York 14778

Course: Technical and Scientific Writing (Mass Comm 305)

Description: Principles and practices of technical and scientific writing and editing for business and industry, the press, government, and other publication work.

Enrollment: Undergraduate

Predominant Majors: Journalism, science

Average Number of Students: 12-15

Offered: Each year

Instructor: John Nichols, (716) 375-2520 or 2521.

STATE UNIVERSITY OF NEW YORK AT BINGHAMTON
Department of Chemistry
Binghamton, New York 13901

Course: Science Communication (Chem 205/Rhetoric 170A)

Description: Introduction to science writing and reporting to the public, for students planning careers in the health and basic sciences or journalism. Adaption of basic journalism skills to science communication, science in the mass media, public conceptions of science, science-media ethics and the social responsibility of scientists, politics of science, and science policy. Students write science articles aimed at a general audience, using newspaper and television styles. Guest lectures by professional media representatives. Field trip to a newspaper and a TV station.

Enrollment: Undergraduate

Predominant Majors: Science, journalism

Average Number of Students: 15

Offered: Each year

Instructor: Lawrence Verbit, (607) 798-2517 and Christian P. Gruber, Department of English, (607) 798-2758.

SYRACUSE UNIVERSITY
Newhouse School of Public Communication
Syracuse, New York 13210

Course: Energy Reporting (Reporting of Public Affairs) (NEW 530)

Description: Focuses on energy problems in government, industry, and private sector and reporting on those problems/solutions for newspapers.

Enrollment: Undergraduates

Predominant Majors: Journalism

Average Number of Students: 15

Offered: Intermittently

Instructor: Catherine L. Covert, 302 Newhouse, (315) 423-2301.

NORTH DAKOTA

NORTH DAKOTA STATE UNIVERSITY
Department of Communication
Fargo, North Dakota 58102

PROGRAM: Technical Journalism

Description: Minor or area concentration for agriculture, home economics, engineering, and science students who wish to become specialized writers or editors for the lay print media.

Year Founded: 1954

Number of Students: 40

Degree Offered: B.A. or B.S. in all fields, minor or concentration

Director: Lou Richardson, 103 Minard, (701) 237-8654.

COURSES

Course: Technical Journalism (Comm 304)

Description: Methods of writing technical and scientific news reports; interpretation of technical and scientific information for a lay audience; feature writing.

Enrollment: Undergraduate

Predominant Majors: Agriculture, social sciences

Average Number of Students: 20

Offered: Each year

Instructor: Lou Richardson.

OHIO

BOWLING GREEN STATE UNIVERSITY
English Department
Bowling Green, Ohio 43403..

PROGRAM: Technical Communications

Description: A program in technical communications is being planned including two courses in technical writing for undergraduate and graduate students.

Director: Martha Eckman, (419) 372-0314.

KENT STATE UNIVERSITY
Department of Physics
Kent, Ohio 44242

Course: Physics for Journalism (Physics 40095)

Description: Interpreting current and fundamental concepts in physics for the journalistic profession. Overview of concepts; sources for physics information; applications to current events in physics.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 10-15

Offered: Each year

Instructor: S. H. Christensen, (216) 672-2542.

OHIO UNIVERSITY
School of Journalism
Athens, Ohio 45701

Course: Reporting Science and Medicine (Jour 463/563)

Description: The nature of science, politics, current issues, as they relate to reporting science and medicine in the public media, especially newspapers and magazines. "Live" coverage included.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism

Average Number of Students: 20-25

Offered: Each year

Instructor: Byron T. Scott, 005 Lasher Hall, (614) 594-2671.

OKLAHOMA

OKLAHOMA STATE UNIVERSITY
Department of English
Stillwater, Oklahoma

Course: Internship: Technical Writing and Professional Report Writing
(ENGL 4523)

Description: Practice in writing resumes, proposals, abstracts, and articles. Concentrated review of mechanics, proofreading, editing, and interviewing techniques. Second eight weeks include internship experience. (Introductory, intermediate, and advanced professional technical writing courses also are offered.)

Enrollment: Undergraduate

Predominant Majors: Science, engineering, agriculture

Average Number of Students: Not available

Offered: Not available

Instructor: Thomas L. Warren, Morrill Hall 205, (405) 624-6138.

OREGON

OREGON STATE UNIVERSITY

Department of Journalism
Corvallis, Oregon 97331

PROGRAM: Technical Journalism

Description: Students major in journalism and minor in one of 33 areas in science, engineering, agriculture, forestry, pharmacy, veterinary medicine, environment. A seminar in science writing and courses in technical writing and technical journalism are among those offered.

Year Founded: 1969

Number of Students: 107

Degree Offered: B.S. or B.A. in Technical Journalism

Director: Fred C. Zwahlen, Jr., Chairman, Agriculture Hall 232,
(503) 754-3108.

COURSES

Course: Contemporary Technical Journalism (J393)

Description: Role, functions, and responsibilities of mass and specialized media in interpreting science and other technical fields to the reading public. Advanced reporting, including radio and TV documentaries. Research and discussion of specialized technical fields and their relationship to the government and public.

Enrollment: Undergraduate

Predominant Majors: Technical journalism

Average Number of Students: 15

Offered: Each year

Instructor: Ron Lovell, Ag 224, (503) 754-3108.

Course: Technical Reporting (J319)

Description: Editing popular and scientific bulletins, preparing reports and writing articles for scientific publications, preparing radio manuscripts.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 20

Offered: Each year

Instructor: Robert Birdsall, Ag 226A, (503) 754-3108.

Course: Industrial Advertising (J350)

Description: Role of industrial advertising in newspapers and magazines, with special emphasis on industrial, technical, and scientific publications; basic display advertising layout; writing advertising copy; selling advertising; graphic design in display ads; advertising campaigns.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 20

Offered: Each year

Instructor: Ron Lovell.

OREGON STATE UNIVERSITY - Continued

Course: Technical Photojournalism (J434, J435)

Description: Theory of exposure and development; screening prints for publication; the photograph as journalistic medium in scientific and technical publications; specialized equipment and techniques.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 15

Offered: Each year

Instructor: Fred Zwahlen.

PENNSYLVANIA

ALLEGHENY COLLEGE

Environmental Science Advisory Committee
Meadville, Pennsylvania 16335

PROGRAM: Individual special programs for students interested in science journalism. Students typically major in environmental resource management, which includes courses that require writing aimed at the general public, and minor in English, which includes courses in journalism.

Director: Samuel S. Harrison, Department of Geology.

DREXEL UNIVERSITY

Department of Humanities-Communications
Philadelphia, Pennsylvania 19104

PROGRAM: Science Communication

Description: Program is now being developed; course presently offered in professional technical writing.

Director: Deborah C. Andrews, (215) 895-2430.

LEHIGH UNIVERSITY
Division of Journalism
Bethlehem, Pennsylvania 18015

PROGRAM: Science Writing

Description: Both a major and minor program are offered in science writing for students wishing careers in science journalism with the mass or specialized media, or in public information or public relations. A minimum of 32 hours of journalism and science communication courses is required for the major, along with 24 hours of science, social science, or engineering. Seventeen hours in journalism and science communication are required for the minor. Students also must write about science topics for the university newspaper. Internships are available with area newspapers and magazines and with public information and public relations firms.

Year Founded: 1977

Number of Students: 10

Degree Offered: B.A. in Journalism/Science Writing

Director: Sharon M. Friedman, University Center #29, (215) 691-7000, ext. 337.

PROGRAM: Environmental Science Writing

Description: An area concentration in a multidisciplinary Environmental Sciences and Resource Management Program, for students interested in careers in environmental journalism, environmental consulting or problem analysis, environmental law, or other professions that require training both in science and in communication skills. Students are required to take a core sequence of 66 credits in biology, geology, chemistry, and physics, and 18 hours in the science writing program.

Year Founded: 1977

Number of Students: 2

Degree Offered: B.S. in Environmental Sciences and Resource Management

Director: Sharon M. Friedman and Edward Evenson, ESRM Program, (215) 691-7000, ext. 555.

COURSES

Course: Science Writing (Journ 123 and Journ 311)

Description: Study of and practice in writing about science and technology for mass media and specialized science publications. Includes news and feature articles, report writing, and analysis of factors that influence science communication to the public. Emphasis on translation of scientific material into lay language.

Enrollment: Undergraduate (123) and graduate (311)

Predominant Majors: Journalism, science, social science, engineering

Average Number of Students: 15-20

Offered: Each year

Instructor: Sharon M. Friedman.

LEHIGH UNIVERSITY - Continued

Course: Politics of Science (Journ 124)

Description: Study of the organization of the U.S. scientific community and how it interacts with the mass media, the government, and the public. Emphasis on media critics of science and the development and growth of the scientific establishment in the United States.

Enrollment: Undergraduate

Predominant Majors: Mixed

Average Number of Students: 15

Offered: Each year

Instructor: Sharon M. Friedman.

Course: Environment, the Public and the Mass Media (Journ 125)

Description: Public perceptions of environmental problems and of the roles played by business, government, the mass media, and environmental groups. Analysis of persuasion techniques and student investigations of regional environmental problems.

Enrollment: Undergraduate

Predominant Majors: Journalism, environment, science

Average Number of Students: 15-20

Offered: Each year

Instructor: Sharon M. Friedman.

Course: Writing about the Environment (Journ 126)

Description: Practice in techniques of environmental public relations, including press releases, public service announcements, newsletters, reports, and pamphlets. Environmental persuasion campaigns for actual clients are developed.

Enrollment: Undergraduate

Predominant Majors: Journalism, environment

Average Number of Students: 10

Offered: Each year

Instructor: Sharon M. Friedman.

Course: Advanced Science Writing (Journ 312)

Description: Advanced practice in writing news and feature articles on scientific and technological subjects for the mass and specialized media.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, environment

Average Number of Students: 1-3

Offered: Each semester by appointment

Instructor: Sharon M. Friedman.

Course: Special Topics in Science Writing (Journ 313)

Description: Interpretive feature writing on controversial or complex scientific and technological topics. Emphasis on in-depth investigations, interviewing, and balanced reporting. Three major and marketable articles are required.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, environment

Average Number of Students: 1-3

Offered: Each semester by appointment

Instructor: Sharon M. Friedman.

TEMPLE UNIVERSITY
Department of Journalism
Philadelphia, Pennsylvania 19122

Course: Science Writing (Journ 350)

Description: Instruction and practice in writing popular science articles for newspapers and magazines. Emphasis on translation of scientific language. Familiarization with literature of science and interviewing of scientists.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 10

Offered: Bi-yearly

Instructor: LeRoy M. Carl, (215) 787-8345.

Course: Science News Writing (Journ 607)

Description: Translating scientific materials into lay language, with emphasis on news style writing. Includes translation of scientific research papers and reports from primary and secondary sources into popular form. Discussion of public relations techniques applicable to communicating scientific messages to various lay and special publics.

Enrollment: Graduate

Predominant Majors: Journalism

Average Number of Students: 10

Offered: Bi-yearly

Instructor: LeRoy M. Carl.

SOUTH DAKOTA

UNIVERSITY OF SOUTH DAKOTA AT SPRINGFIELD
Department of Humanities
Springfield, South Dakota 57062

PROGRAM: Technical Communication Specialist

Description: Students combine communication courses and a technical specialty, usually taking this two-year program and a four-year degree program at the same time. Communication courses include introductory and advanced technical writing.

Year Founded: 1973

Number of Students: 15

Degree Offered: Associate

Director: Not available.

TEXAS

TEXAS TECH UNIVERSITY
School of Medicine
Lubbock, Texas 79409

PROGRAM: Health Communications

Description: Communication theory with optional emphases in health journalism, health information science, and health media. Fourteen courses are taught; 48 semester hours are required, with a thesis or internship option.

Year Founded: 1974

Number of Students: 20

Degree Offered: M.A. in Mass Communications

Director: Donald J. Brenner, Health Sciences Centers, P.O. Box 4569,
(806) 743-2830.

COURSES

Course: Health Communications Seminar I and II (Health Comm 5310-11)

Description: Introduction to the new discipline of health communications. Application of human communication theory to health care and health service systems. Emphasis on health care provider-consumer intercommunication and the communicational study of patienthood.

Enrollment: Graduate

Predominant Majors: Health communications

Average Number of Students: 10

Offered: Each year

Instructor: Donald J. Brenner.

Course: Medical Writing and Reporting (Health Comm 5312)

Description: Application of reporting and newswriting principles and techniques to the health field. Includes active criticism from medical and health professionals, including medical writers.

Enrollment: Graduate

Predominant Majors: Health communications

Average Number of Students: 5

Offered: Each year

Instructor: Donald J. Brenner.

Course: Application of Communication Theory to Health Communications (Health Comm 5314)

Description: Application of diffusion theory, persuasion and learning theory, motivation research to the information systems of health and medicine.

Enrollment: Graduate

Predominant Majors: Health communications

Average Number of Students: 5

Offered: Each year

Instructor: Gustavo M. Quesada; (806) 743-2830.

TEXAS TECH UNIVERSITY - Continued

Course: Visual Techniques Practicum (Health Comm 5326)

Description: Introductory course involving media in health sciences education, research, and service programs. Working with the medical faculty and staff and patients in preparing instructional packages and ways to improve them.

Enrollment: Graduate

Predominant Majors: Health communications

Average Number of Students: 10

Offered: Each year

Instructor: Roy C. Allen, Continuing Education, (806) 743-2929.

Course: Health Communications Research (Health Comm 5315)

Description: Critical examination and synthesis of past and ongoing research on the health communications process, focusing on mass communication research concerning health and medicine.

Enrollment: Graduates

Predominant Majors: Health communications

Average Number of Students: 5

Offered: Each year

Instructor: Donald J. Brenner.

UNIVERSITY OF HOUSTON

Department of Communications

Houston, Texas 77004

Course: Science Writing (Comm 487)

Description: Feature writing about science topics and special problems involved in science reporting. To help non-science majors explain scientific developments in various fields to lay persons.

Enrollment: Undergraduate

Predominant Majors: Journalism

Average Number of Students: 12

Offered: Bi-yearly

Instructor: Louis Alexander, (713) 749-1745.

JTAH

UTAH STATE UNIVERSITY
Department of Communication
Logan, Utah 84322

Course: Technical and Professional Communication (Comm 305)

Description: Skill development in oral technical reporting, interviewing, and interpersonal communication, to meet the unique communication requirements of business, industry, and the professions.

Enrollment: Undergraduate

Predominant Majors: Social sciences, natural resources

Average Number of Students: 12

Offered: Each quarter

Instructor: Larry Haapanen, UMC/46, (801) 752-7656.

WASHINGTON

UNIVERSITY OF WASHINGTON
Department of Communications
Seattle, Washington 98105

Course: Science Reporting (CMU 323)

Description: How to gather science news and present it to popular audiences. Emphasis on both reporting and writing science news.

Enrollment: Undergraduate

Predominant Majors: Journalism, science

Average Number of Students: 12

Offered: Each year

Instructor: Keith R. Stamm, 326 CMU Building, (206) 543-2660.

WISCONSIN

UNIVERSITY OF WISCONSIN-MADISON
Department of Agricultural Journalism
Madison, Wisconsin 53706

PROGRAM: Agricultural Journalism

Description: Over 20 courses in agricultural journalism, newswriting, radio and TV, documentary film, editing, advertising. Majors select one of four options: (1) agricultural social science, for those interested in public information or mass media; (2) agricultural business and industry, for those interested in public relations or advertising; (3) natural science, for those interested in science writing; (4) natural resources, for those interested in environmental communication and education.

Year Founded: 1907

Number of Students: 85 undergraduates, 51 graduate students

Degree Offered: B.S. and M.S. in Agricultural Journalism, Ph.D. in Mass Communication (with School of Journalism)

Director: Claron Burnett, 440 Henry Mall, (608) 262-1464.

PROGRAM: Home Economics Communications

Description: Prepares professional communicators of home economics information for media, public relations, research, teaching, and administration.

Year Founded: 1950

Number of Students: 45

Degree Offered: B.S. in Home Economics Journalism

Director: Nellie McCannon, (608) 262-1461.

COURSES

Course: Communication in Agriculture (Ag 100)

Description: Agriculture communications and mass media. Elementary communication concepts and skills for agriculture and related industries.

Enrollment: Undergraduate

Predominant Majors: Agriculture

Average Number of Students: 90

Offered: Each semester

Instructor: Lloyd Bostian, (608) 262-1464.

Course: Agricultural News Writing (Ag 111)

Description: How to present information through newspapers and magazines.

Enrollment: Undergraduate

Predominant Majors: Agriculture

Average Number of Students: 60

Offered: Each semester

Instructor: Bryant Kearn, Marion Brown, John Fatt, (608) 262-1464.

UNIVERSITY OF WISCONSIN-MADISON - Continued

Course: Home Economics News Writing (130)

Description: News of interest to consumers; radio and television writing.

Enrollment: Undergraduate

Predominant Majors: Home economics

Average Number of Students: 18

Offered: Each year

Instructor: Nellie McCannon.

Course: Reporting (Ag 204)

Description: The gathering of news, primarily agricultural topics.

Enrollment: Undergraduate

Predominant Majors: Agriculture

Average Number of Students: 34

Offered: Each semester

Instructor: Jerry Karbon, Richard Powers, (608) 262-2614.

Course: Advanced Agricultural Writing (Ag. 320)

Description: Writing of feature articles; adaptation of style and approach to specific publications and audiences.

Enrollment: Undergraduate

Predominant Majors: Agriculture

Average Number of Students: 16 per section

Offered: Each semester

Instructor: Richard Powers, Gene Kroupa, (608) 262-1463.

Course: Editorial Practice - Cinematography (363)

Description: Cinematography and interpretive reporting in the documentary film.

Enrollment: Undergraduate and graduate

Predominant Majors: Social sciences, agriculture

Average Number of Students: 25

Offered: Each year

Instructor: Fritz Albert, (608) 262-1461.

UNIVERSITY OF WISCONSIN-MADISON

Zoology Department

Madison, Wisconsin 53706

Course: Scientific Writing in Biology (Zoology 400)

Description: Scientific and technical writing both for professional and for general audiences.

Enrollment: Undergraduate and graduate

Predominant Majors: Science

Average Number of Students: 15-20

Offered: One-year experiment

Instructor: Walter Plant and Donald Itkin, 329 Zoo Research Building, (608) 262-2579.

UNIVERSITY OF WISCONSIN-MADISON
School of Journalism and
General Engineering Department
Madison, Wisconsin 53706

Course: Science/Technology Writing for the Public (Gen Eng 315 and
Journ 315)

Description: For science and engineering majors: to develop an ability
to write about science and technology without the crutch of
technical jargon and with a new awareness of the difficulties
faced by the general reader. For journalism majors: to add
to their reporting skills the talent to interpret science and
technology, both with accuracy and with substantive under-
standing.

Enrollment: Undergraduate and graduate

Predominant Majors: Journalism, science, engineering

Average Number of Students: 15

Offered: Each year

Instructor: Edward E. Daub, Engineering, (608) 262-1342 and Hartley Howe,
School of Journalism, (608) 262-3691.

UNIVERSITY OF WISCONSIN-MADISON
University-Industry Research Program
Madison, Wisconsin 53706

PROGRAM: UIR Science Writing Program

Description: Writing program for graduate students in the sciences, pro-
viding work experience in writing articles for publications
by contributing to the UIR/Research Newsletter. The UIR
Program is a division of the University of Wisconsin Graduate
School.

Year Founded: 1956

Number of Students: 6

Degree Offered: Students receive Master's degree in scientific field.

Director: James A. Larsen, WARF Building, 610 Walnut St., (608) 263-2876.

DIRECTORY OF SCIENCE COMMUNICATION COURSES AND PROGRAMS

FEBRUARY 1978

ADDITIONS/CORRECTIONS FORM

Please use this form for additions/corrections concerning science communication courses and programs for use in the next edition of the Directory.

INSTITUTION: (Complete mailing address)

NAME AND TITLE OF RESPONDANT:

Telephone () _____
Area
code

ADDITIONS/CORRECTIONS

Please return to: SCIENCE COMMUNICATION DIRECTORY
DEPARTMENT OF CHEMISTRY
STATE UNIVERSITY OF NEW YORK AT BINGHAMTON
BINGHAMTON, NY 13901