Suggested Subjects of Composition for Lower-Division Technical Writing.

Intended for use with students in lower division technical writing courses, this list of over 800 suggested composition subjects is drawn from surveys of technical writing teachers as well as from teachers of science and technology. The suggested subjects pertain to 16 types of papers commonly presented in textbooks and articles dealing with technical writing instruction:

1. extended definition,
2. process without a conspicuous performer,
3. instructional ("how to"),
4. classification/partition,
5. comparison/contrast,
6. cause/effect,
7. description of a mechanism,
8. summary of a scientific or technical source,
9. inquiry or request,
10. complaint,
11. proposal for research,
12. analysis of a problem,
13. report of research progress,
14. library research report,
15. elementary empirical research,
16. combination of library and empirical research.

In addition, the listing provides a number of first and second preference suggestions, as well as subjects and sources for library research and composition suggested by Illinois State University faculty in the departments of agriculture, applied computer science, corrections, health science, home economics, industrial technology, biology, chemistry, geography-geology, physics, and science and technology. (HOD)
Suggested Subjects of Composition for Lower-division Technical Writing

Leigh Henson
Suggested Subjects of Composition for Lower-division Technical Writing

Introduction

More and more technical writing courses are being offered at the freshman and sophomore level in the four-year college and the university as well as in the community college and the technical institute. Many students of lower-division technical writing in the four-year institution, however, have not yet developed specialized knowledge in their major fields. When asked to do papers relating to types of writing performed on the job, these students may experience difficulty in selecting subjects for composition. Ordinarily, students must find a subject of particular familiarity to them and adapt it to the specific requirements of the writing assignment. Without instructional assistance, students of lower-division technical writing, however, may not choose the most appropriate subject.

I believe that a list of suggested subjects enables students to examine their own experience and knowledge, not merely to recognize a given subject as suitable, but to help them in thinking of a related subject as a more effective one. Individual teachers are no doubt limited in the number of suggested subjects they can offer.

Therefore, I developed the present list of over eight hundred suggested subjects based on surveys of teachers of technical writing as well as teachers of science and technology. The suggested subjects pertain to sixteen types of papers commonly presented in textbooks and articles dealing with technical writing instruction.
Unless otherwise indicated, the suggested subjects were provided by over one hundred members of the Association of Teachers of Technical Writing who responded to my 1981 survey concerned with lower-division technical writing. Many members of this association are among the teachers of English in higher education who are most actively engaged in technical writing instruction. Additional suggested subjects for library research and composition derived from a survey of faculty in science and technology at Illinois State University. Many of those suggested subjects include sources recommended for research.

Some of the suggested subjects reflect specialized knowledge and are so classified in the listing. Thus, upper-division as well as lower-division students of technical writing may find this material useful as an aid to invention.
Suggested Subjects of Composition Based on Extended Definition

Familiar Subjects
A term from a job or hobby
Cigarette lighter
A term from a major field of study
Economy car
Map
Chart
Roommate
A good teacher
Graph
Plender
A device from a major field

Student
A student's major field
Potato peeler
Key
Paper clip
Felt pen
Ruler
Typewriter
A task to be done
Feedback
Snow
Dog.

Specialized Subjects
Sextant
Word processing
A data processing term
Audience analysis
AC-DC conversion/energy
Offset printing
Micro processor

Transistor
A patrolman's offense report
Photosynthesis
Airfoil
Laser
Brake
Power
Extended Definition
Specialized Subjects (continued)

Energy
Soil horizon
Farrow to finish operation
BYTE
Horsepower
Resistance
Thermodynamics
Coma
Transit
Thermostat
Fission
Tolerance
Cancer
Tourniquet
Scientific method
Flow chart
Ecology
Computer

Estrogen
Windfall profit tax
Erosion
Cutability
Microcomputer
Nutrition
Carrying capacity
Analytical balance
Dialectic
Schizophrenia
Entrophy
Research
Ethics
Digital electronics
Robotics
Gyroscope
Memory
Suggested Subjects Based on Process Without a Conspicuous Performer

Familiar Subjects

Registration process for college
Toilet tank operation
Going from one campus building to another
Overhead projector
Bicycle in operation

Specialized Subjects

Stages of a biological or chemical process
Operation of a refrigeration unit
Research techniques for technical communication
Improving communication in an office
Budget process
Work plan
Silk screen
How a machine or device works
Manufacturing of paper
Desalinization of water
Making bricks
Administering a medical test
Ignition system of a car
Laboratory process
Internal combustion
How a microwave oven works
Silk
Communication cycle
Circulation of blood
Evaporation
Eutrophication
How radar works
Research, test method explained to management
How a thermostat works
Electronic circuits
Process
Specialized Subjects (continued)

Developing black and white film
A chemical analysis
How a haybaler works
Movement of stock through a warehouse to customers
How a cell divides
Operation of atomic power plant
Extending mental health services
How a college awards financial aid
Fermentation
Solar heating systems
Laboratory report
Cremosis
Volcanic eruption
Hydroponics
Germination and growth of a seed
Formation of cumulus clouds
Making cheddar cheese
Shipping explosives cross-country
Continuous casting
Growth of a tree
Suggested Subjects of Composition Based on Instructions

Familiar Subjects
Any process around home
Changing oil
Repairing household water faucet
Changing a tire
Refinishing furniture
Assembling a tinker-toy mechanism
Building a kite
Caulking a bathtub
Putting together a "Big Wheel"
Installing a vinyl floor
Making a peanut butter sandwich
Fixing a punctured tire
Playing a particular game
Baking a certain dish
Operating a can opener

Writing a check
Replacing a windowpane
A maintenance procedure
Checking out a library book
CPR
Saving a victim of choking
Reading a weather map
Tying a shoe
Assembling a bike
Jump starting an auto
Loading a stapler
Installing a dimmer light switch
Safety precautions
Operating a chainsaw

Specialized Subjects
Preparing a slide in biology
Preparing blood smears
Operating a machine
Shipping a printing plate

Developing a photograph
Changing a carburetor
Building a wooden fence
Using a voltmeter
Instructions
Specialized Subjects (continued),

Skiing safely
Reconditioning a boat
Simple auto body repair
Procedure for filling a syringe
Procedure for surveying property
Using a program in computer-assisted instruction
Tuning an engine
Self-arresting with an ice axe
Working a math problem
Cleardutting
Breaking a foal to halter
Building a solar greenhouse
Using a tachometer
Grafting on a tree
Setting up a transit
Setting up an apparatus
Designing a circuit
Operating an A B Dick ditto machine
Solving a linear equation
Taking care of a photocopy machine
Blowing glass
A job description
Calculating personal income tax
Calculating "current ratios" (business)
Tying fishing flies
Making bullets
Patient assessment
Installing moisture blocks
Assembling a chair for a carpenter/for a layman
Performing a particular experiment
Adapting a motorcycle for trail riding
Sorting mail
Operating a drill
Sharpening a chainsaw
Suggested Subjects of Composition Based on Classification/Partition

Familiar Subjects

Analysis of the parts of a desk-chair
Outlining from brainstorming
Coursework for degrees
Automobiles
Tape decks
Types of nightclubs
Uses of a college catalog

Specialized Subjects

Types of electric generators
Types of fishing vessels
Types of offshore oil platforms
Types of fog
Automobile principal assemblies
Types of attenuators
Kinds of computers
Modern industry organization
Potential of solar or wind power sources
Career available for the AB degree holder
Computer languages (e.g., COBOL, BASIC)

Majors in a field classified by reason for choosing the major.
Simple cameras
Books in a library
Camping gear
Application letter/resume
Types of students

Nursing specialties
Cattle
Tools in a workshop
Identification of plant materials
Ammeter
Capacitance
Table of elements
Preparing a table of contents for a technical report
Periodicals in major field
Considerations for selecting a construction site
Engineering terms
Classification/Partition
Specialized Subjects (continued)

Allied health services
Types of technical audiences
Selling techniques
Parts of a tool
Specific job description
Lab equipment
Types of concrete
Types of smoke detectors
Types of wrenches
Types and components of pocket calculators
Outboard engines
Kinds of computer software
Set of variables
Evaluation of texts in a field
Steel beams
Documentation
Kinds of business machines
Rejection letter
Poems
Jobs in a given specialty
Suggested Subjects of Composition Based on Comparison/Contrast

**Familiar Subjects**
- Two instructors
- Auto specifications
- Two brands of jogging shoes
- Two brands of bicycles
- A human and an apple
- High school vs. college
- Types of cookies

**Specialized Subjects**
- Feasibility report: contrast two pairs of skis
- Purchasing computers
- Two screening tests for sickle-cell anemia
- Mechanical typewriters vs. word processors
- Offset and letter press
- Leasing vs. buying cars
- Two types of engines
- Time study of two methods of baking bread
- Two methods of removing a pressure regulator
- Two computer languages

- Felt tip vs. ball point pens
- Prices at local chain stores
- University parking lot use at 9:00 A.M. vs. 3:00 P.M.
- Courses in and out of major
- Summer and winter
- Solar power and wind power
- Cross-country vs. alpine skis
- Radial and conventional tires
- Airplane wing with sail on a boat
- Types of insulation
- No till vs. conventional till-age methods
- Two storage-building designs
- Engineering terms (definitions)
- A technical vs. a non-technical article on same subject
- Two kinds of weather reports
- Formal article vs. formal report
Comparison/Contrast
Specialized Subjects (continued)

Case study on feasibility of two conflicting proposals
LED vs. LCD for electronic displays
Passive vs. active solar energy
Good vs. poor memos
Student vs. professional writing
U.S. vs. British education
Offerings at two technical schools
Diesel vs. gasohol as fuel
Two species of pine trees
COBOL vs. FORTRAN
U.S. Grant vs. Robert E. Lee
Inflation and deflation
Tolerance levels in X and Y
Suggested Subjects for Composition
Based on Cause/Effect

Familiar Subjects

Why divorce rates are so high

Pressing a key on a typewriter to cause an imprint on paper

X number of ways to lose your job

The parking lot jam up

How a sailboat sails

What determines the price of beer at student center bar

Specialized Subjects

Shrinkage of tillable land in the U.S.

Benefits derived from changing a manufacturing procedure

Effects of using leaded gas in a car specifying unleaded gas

Did expenditures in X result in improved Y

Business should be encouraged to locate in a specific area

Impact on hypothetical company if new employees were hired

Laser

The possible effects of a change in staffing patterns

Grading system (A, B, C, D, E) of colleges

Causes of student disinterest in cultural activities

Why is your last report late

Late drop and add (college courses)

Late registration

Why student drop-out rate is high

Wastewater—determine how/why untreated effluent is entering a local river

The dangers of nuclear power plants

TV "ghosts"

Strip-mining

Contour farming

Magnetism

Chemical reaction

A trouble-shooting problem in student's major

Barometer
Cause/Effect
Specialized Subjects (continued)

Trouble report on a defective
gear-grinding machine

Grade inflation

Why earthquakes occur

Accident analysis

Relation between health and
leisure activities

Soil erosion

A case study on any organizational problem

Cause of failure of an experiment

A natural process

Impact of university on local
economy

Consequence of using sunlamps
for body tan

Whether a letter or a memo is
appropriate

Letter of complaint on delivery
of supplies

Benefits of auto safety devices

Curriculum changes

Explosives research

Function of spark plugs in an
game's effectiveness

Why does it rain

Effects of different exercises
on heart rate
Suggested Subjects of Composition Based on Description of a Mechanism

Familiar Subjects

Vegetable peeler
Wrench
Potato peeler
Mechanical pencil
A child's toy
Electronic razor
Home-movie camera or projector
Gear mechanism on a ten-speed bicycle
Can opener
Ball-point pen
Flashlight
Wheel
Typewriter
Car jack
Xerox machine in college library

Specialized Subjects

An organ of the body
Microscope
A clear-cutting logging mechanism
Spring-operated clock

Pliers
Hand tool
Simple appliance
Screwdriver
Paring knife
Staple remover
Cheese slicer
Pizza cutter
Wine bottle opener
Egg slicer
Cigarette lighter
A level
Light switch
Lamp
Drafting instrument
Food-waste disposal
Electronic mixer
Oscillating electronic fan
Description of a Mechanism

Specialized Subjects (continued)

Linotype press

Oscilloscope

How a thermistor works

Automotive valve

The electronic automobile

A mailing tube

Army wrecker

Carburetor

Brake

Transit

Plane table

The inductive proximity sensor

The electro-mechanical system

The combine

Digital clock

Staple gun

Rivet tool

Safety device in nuclear power plants

Electron microscope

Radar equipment

A computer part

Resistor

Engineer's compass

Artificial limb

A lathe

A laboratory apparatus

Rube Goldberg contraption

Camera shutter

How a CAT scan works

Abney level
Suggested Subjects of Composition Based on Summary of a Scientific or Technical Source

On land faults

Abstracts of professional/technical journal articles

An article from Scientific American

Impact of computers on learning

Summary of an article in student's field for lay audience

An essay from Time

Abstract of an article used for a formal paper

Research on solar heating

USDA brochure

Abstract of a technical report about germs

Article found through use of Science and Technology Index

Article in Hoard's Dairyman or Concrete Design

Chapter on formal report from a textbook

Chapter from a technical textbook

Recombinant DNA

"Hedging" in weather forecasting

Article in communication or media

Use technical description from Federal Register

Distinguish among precis, abstract, and summary

On cloning

"So You'd Like to Fly a Fighter Plane" in Mills and Walter

Book chapter on proposals or formal reports

Abstract on a student's research report

Article on word processors--units available for in-house typing, printing, camera-ready production

Thomas' Lives of a Cell; Selzer's Mortal Lessons

Source on an environmental issue

Communication satellites
Suggested Subjects of Composition
Based on Inquiry or Request

Familiar Subjects

Job application

Inquiry to Chamber of Commerce about industries, job opportunities

Answering a help wanted ad

Arranging to tour a company

Finding out about a new product

Inquiring about a price

Letter of invitation

Specialized Subjects

On data for wind generators

Potential employment sites

Information to be used in a report

On job opportunities for women in computers

Letter with easy-to-answer questionnaire

Order letter for drafting pencils

Request and justify a staff addition

Request for interview (perhaps from an expert in the student’s field)

Obtaining travel information

Answering an inquiry or request

Making accommodations for a vacation

Requesting a letter of recommendation

Seeking information to apply for a bank loan

Requesting a catalog or price list

On computers as money-saving devices for utilities

Asking for additional information on fellow student’s proposal

On the effectiveness of interferon

On the methods in a successful program

Inquiry about admission to an academic program

Request for a progress report

Inquiry to a prospective publisher of an article
Inquiry or Request
Specialized Subjects (continued)

Information on alternative equipment to word processors

For an annual report of a corporation

Information on paper processing

To EICO for specifications on kits

Request permission to use printed matter
Suggested Subjects of Composition Based on a Complaint

Catalog order that was incorrectly filled
To a store concerning poor service
Small appliance failure
New car that doesn’t run properly
Home office concerning a problem not helped at the local level
Describing a product that does not work (e.g., a broken stereo or toaster) with a focus on faulty design, workmanship, or material
A gripe with a specific solution
Concerning a wrong or incomplete order sent
Returning a defective part
Complaint about a personnel policy revision
A billing error
Damaged shipment
A delay in shipping
Disability check not received on time
Concerning a lack of cooperation
Lack of adequate parking space
Response to a given letter of complaint
A campus problem
"Bad news" letter
A disagreement with a professor
Seeking adjustment for damaged merchandise
Campus issue—letter to editor
Clarification of bank statement
To safety officer regarding fire hazard (e.g., in trash area)
To a dean regarding a course or school problem (e.g., food served in the dorm or library hours)
Notation to supervisor of on-the-line complaint (memo or letter)
Letter to editor about the sanitary landfill operation
Suggested Subjects of Composition Based on Proposal for Research

Wind-generated power
Offering credited, on-site courses to the imprisoned
Any ecological subject
Rental or purchase of vehicle or equipment
For technical report on computers in industry
On types of breast cancer
The need for a day-care center in a particular community
Prospectus on an experiment in plant fertilizer
A survey of salaries in a specific area or profession
Subject concerning a career field
Research paper on natural disasters
Problems in constructing underground homes
Abolish pass/fail grading process
A feasibility study
On the history and development of first-generation computers
Simulated proposal on an organization to a government agency or philanthropic organization
On research about safety of nuclear power production
Relating to a project in another course, such as a lab course
On danger of chemical wastes in the environment
On solar heating for domestic hot water
For a simple original survey of student attitudes on such topics as housing, knowledge of scholarship programs of the institution
On a study of emissions from a plant
To build a bridge
A study of fetal alcohol syndrome
A study on writing processes of professions in student's field
Feasibility of undergraduate courses
On whether an alternative bookstore on campus would be supported
A significant community problem
A study on manganese deficiency in horse diet (alfalfa)
A research on TV satellites
Proposal for Research
Suggested Subjects (continued)

Problem of drops/adds on campus

A study of job outlook in a field

Use of word-processing systems on local campus
Suggested Subjects of Composition Based on Analysis of a Problem

Familiar Subjects

Adequacy of campus security
What is wrong with the institution's registration procedure
Projected rise in tuition costs
Access of the handicapped
Inadequacy of lab equipment
Parking problem
Whether advisor approval is necessary for graduate student's courses
Investigation of intersection of highway noted for traffic accidents

Specialized Subjects

The space program
Urban blight
Modernization of farming
Selecting best vehicle, piece of equipment
How a certain paper is best organized
Suburb encroachment on winter range of deer
Decreasing noise in and around airports

How to organize a work crew
Lack of enough weekend organized social activities on campus
Feasibility of college-sponsored commuter bus
Vandalism on campus
An environmental, school, or work problem
Why students fail in college
Personality conflicts
Analysis of preregistration procedures

Windfall profits tax
Voice recognition by computers
Use of estrogen replacement therapy for menopausal women
Feasibility of opening a business, such as a hotel, in a certain city
Employee absenteeism
A problem relating to a research project in progress
Equipment trouble report
Analysis of a Problem
Specialized Subjects (continued)

A communication problem in an organization

Reducing heat loss in a house

A quality control question

Assembling the Rondasics Home

Increasing transportation expenses

Airplane safety

Nature of "no fault" auto insurance

Employee tardiness

Symbols for words

Why X% of campus students are registered voters

Dumping corrosive chemicals
Suggested Subjects of Composition Based on Report of Progress on Research

Familiar Subjects

Analysis of immediate plans

On a research paper or experiment on a given date—what has been done, what needs to be done, what problems remain

Materials gathered for a library research report

Progress to date on the student's degree

Specialized Subjects

Wind generated power

Building inspectors—inspection papers on code reviews

Researching locations for college classroom building

Reorganizing a business office

Crop production five-year study

Energy sources

New drug to combat hypertension

Effect of Federal cut in NDS loans on enrollment

In the composition course

On music therapy

Effectiveness of school's computer system

Economics of solar energy
Suggested Subjects of Composition Based on Library Research Report

Journalistic scare tactics about cancer
An environmental topic
Review of literature on job opportunities in a field
Usefulness of indexing systems compared: ERIC, Med-line, Reader's Guide, etc.
Performance of current year automobile
The future of some matter in a student's field
Preferred insulating methods for new houses
Usefulness of home computers
Converting your home to solar heating
Downtown shopping center decay
Interpretation of Census data
The Three-Mile Island problem
Cost Analysis
Purchase of some appliance
How bad was the drought of 1980
Development of equal opportunities statutes
Use of computers in the field of printing
Ten-year growth in student's major field
Robots in the auto industry
Evaluation of training methods: OJT, classroom, CCTV, programmed
What a draftsman needs to know about welding
A handbook for volunteer firemen acquainting them with basic arson investigation principles and techniques
Status of DMSO—Nursing Students
Suggested Subjects of Composition Based on Elementary Empirical Research

Renumbering system of buildings on campus

Consumer response to use of universal pricing codes

A cost-effective plain paper, copy machine

What are the housing needs of college students

Improved scheduling, college services for evening students

How much and what kinds of technical writing are used in a given place of business

A traffic count at a particular intersection

Marketing methods for spring dresses

Reasons for wide differences in utility costs

Evaluation of an employee

Eating or driving or studying habits of a group of students

Requirements of reporting by the electric utility industry to government

Student attitudes toward interracial marriage

Setting up a nonsmokers' lounge

Subject of academic concern, such as change in GPA for graduation

Lab report

What distribution of courses students choose

On a campus problem

Survey of attitudes on campus liquor regulations

Effectiveness of college admissions and orientation practices

Science instructors' frequency of writing

Where does a local supermarket place non-food items and why (interview manager, study floor plan, customer flow, etc.)

Day-care facilities in town

Grade inflation

Writing processes of professionals in a field

Measure degree of interest in legislation to restrict ownership of handguns

What kind of new restaurant is needed in town

A case study

Market survey for a new product
Suggested Subjects Based on a Combination of Library and Empirical Research

Advisability of opening a certain small business

Marijuana

Automatic thoroughfare

Analysis of the Kzar Wastewater Treatment System

Computer use patterns

Progress in implementing new gasoline vapor recovery devices

Use of smoke/heat detectors

Compare jogger survey to several published articles on jogging regarding best warm-up techniques

Local zoning problems

The employability of college graduates in certain fields

Feasibility of using solar panels to heat a local residence

Effective measures for improving productivity in one's place of employment

Use of movement theory in elementary classroom

Drugs

Abortion

Women's rights

Setting up a personal corporation after graduation

Need for new security measures on campus

Lab report

Practical applications of alternative energy sources

Selection of a gas-saving auto

Use of N/C shop machines in local industries

Telephone sales and collections

Wood as fuel

Desalination of water

Reasons for decreases in prices of computers

Installation of a detection device to deter theft of electric typewriters, bicycles, etc.

A study of arc welder settings

A proposal to solve a problem at work

Population changes in a court during the past ten years

Importance of Federal aid to college students and to institutions of higher learning

Field report on evaluating merits of bridge vs. tunnel

Feasibility of use of a secondary or tertiary recovery technique in a permian basin oil field
Other Suggested Subjects for Composition

First Preference Suggestions

Proposal for professional service landscaping
Pros and cons of in-class vs. homework assignments
Article for a magazine (general interest article for lay audience)
Formal technical article
Persuasive paper
A paper in another course as a paper also in English
Description of an organization familiar to the student
Analysis of conditions in a building concerning fire safety investigation
Operating instructions for a piece of industrial machinery
Job application and resume (16)
Report making prominent use of a visual aid (graph, table, chart)
Letter of transmittal for a hypothetical research paper
Analyze an essay to see who the audience is (5)

Practice outlining
News release on topic of a report
Instructions manual
Informational brochure (pertaining to a campus-related subject)
A study of a topic concerning the future
Review of literature
Description of a mechanism in operation
A group writing project (2)
Feasibility report (3)
Recommendation report (2)
Analysis of measures for improving productivity in a place of employment
Bibliography for a final report
Job description (3)
Abstract (2)
Oral report with letter of transmittal and abstract

1 Subjects from the first open-ended item provided to solicit other suggestions for composition. The numbers in parentheses indicate the number of survey respondents who suggested a given subject.
First Preference Suggestions (continued)

Report and outline of video taped oral technical report

Critical analysis of one's own writing skills and problems

Case study (for allied health students)

Design of forms, questionnaires

Condensation of a technical writing textbook

Letter responding to a question or complaint (2)

Project completion report

Second Preference Suggestions

Problem/solution analysis of a company problem

Evaluation of another student's formal report

A standard memo

Informal communication: "thanks"--"no thanks"

Feasibility report

Proposal (2)

Editing pages from writing of industry to cut passives, nominalizations, dead wood, pomposity

Letter of adjustment for customer claim

Sales promotional piece

Job application and resume (8)

Operations manual

A survey of career options in a given field

Subjects from the second open-ended item provided to solicit other suggestions for composition. The numbers in parentheses indicate the number of survey respondents who suggested a given subject.
Second Preference Suggestions
(continued)

A children's book based on a technical subject

Information report based on a visit to local business or industry

Rewrite of a technical article for a lay reader (3)

Formal technical paper

An action memo

A work order

Authorization for specified repair work on a defective vehicle

Abstract

Topic outline developed into sentence outline

Analysis of essay to determine whether it is technical writing

Rewriting an introduction or conclusion

Exercises on diction to emphasize clarity and conciseness

Oral report based on a research paper

Recommendation report

A paper in another course as a paper in English
### Subjects and Sources for Library Research and Composition

**Suggested by Illinois State Faculty in the Department of Agriculture**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>World population and food production</td>
<td>USDA publications available from Superintendent of Documents</td>
</tr>
<tr>
<td>Farm taxes (inheritance and income)</td>
<td>U.N. reports</td>
</tr>
<tr>
<td>Zoning and pollution regulations</td>
<td>Internal Revenue Service explanations</td>
</tr>
<tr>
<td>Gasohol</td>
<td>Department of Energy</td>
</tr>
<tr>
<td>Agriculture research</td>
<td>USDA publications</td>
</tr>
<tr>
<td>Agriculture statistics</td>
<td>Census and Illinois crop statistics</td>
</tr>
<tr>
<td>Rural health and safety</td>
<td>National Safety Council Bulletins--Farm Conference; State-of-the-Art Report on Occupational Safety and Health in Agriculture, Institute of Agricultural Medicine (Oakdale, Iowa: University of Iowa, 1974)</td>
</tr>
<tr>
<td>Accident prevention on the farm and ranch</td>
<td>National Safety Council Bulletins--Farm Conference; Farm and Ranch Safety Management Kit, National Safety Council; Agricultural Machinery Safety by John Deere, Moline, Illinois</td>
</tr>
<tr>
<td>Energy for agriculture</td>
<td>Gasohol USA, Solar Energy Journal</td>
</tr>
<tr>
<td>Subject</td>
<td>Source</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>Agricultural zoning</td>
<td>Soil Conservation Service</td>
</tr>
<tr>
<td>Any crop production area</td>
<td>Farm and scientific journals</td>
</tr>
</tbody>
</table>
## Subjects and Sources for Library Research and Composition

**Suggested by Illinois State Faculty in the Department of Applied Computer Science**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>History and development of programming, programming languages</td>
<td>ACM journals; Sommet-Programming Languages History and Fundamentals</td>
</tr>
<tr>
<td>Applications of computer-based design</td>
<td>Data processing journals; Computer-World</td>
</tr>
<tr>
<td>Should computers be used in the elementary school classroom? How or why not?</td>
<td>Computers and People; Micro-computing; Computer</td>
</tr>
<tr>
<td>Computerized crime or computer-aided law enforcement or whose side is the computer on--cops' or robbers'?</td>
<td>Computer-World; Thomas Whiteside, Computer Capers, Mentor Press</td>
</tr>
<tr>
<td>Structural systems analysis</td>
<td>Yourdon; Page-Jones</td>
</tr>
<tr>
<td>Development of micro computers</td>
<td>Byte and other micro journals</td>
</tr>
<tr>
<td>Micro computers applied to renewable energy sources</td>
<td>(Same as above)</td>
</tr>
</tbody>
</table>
# Subjects and Sources for Library Research and Composition

**Suggested by Illinois State Faculty in the Department of Corrections**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control and structuring of police discretion</td>
<td>Herman Goldstein, <em>Policing a Free Society</em></td>
</tr>
<tr>
<td>The effects of higher education on police behavior and performance</td>
<td>Atkins and Pogrebin, <em>The Invisible Justice System</em> (Goldstein source above)</td>
</tr>
<tr>
<td>Juvenile justice systems</td>
<td></td>
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<tr>
<td>The social role differentiation in prison</td>
<td></td>
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<tr>
<td>Rehabilitation of offenders</td>
<td>Presentence reports</td>
</tr>
<tr>
<td>Subject</td>
<td>Source</td>
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<tr>
<td>Human behavior and its relationship to the health of the individual</td>
<td>Health Education Quarterly; Health Education; Journal of School Health; Journal of the American Health Association</td>
</tr>
<tr>
<td>Role of voluntary health agencies in the quality of life of a community</td>
<td>Index Medicus; Hospital Literature Index</td>
</tr>
<tr>
<td>Problem-oriented medical records</td>
<td>Psychological Abstracts; Biological Abstracts</td>
</tr>
<tr>
<td>Legal aspects of health and health documentation</td>
<td>ERIC system or any other library sources</td>
</tr>
<tr>
<td>Medical or health topics</td>
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<tr>
<td>Topical or curriculum research or annotated bibliographies</td>
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<tr>
<td>Any medical topics—diabetes, clinical chemistry instrumentation</td>
<td>Williams and Lundberg, Introduction to the Profession of Medical Technology</td>
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<tr>
<td>Medical technology</td>
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<tr>
<td>JCAH requirements; Medicare conditions of participation</td>
<td>TCAH Manual; COP Manual</td>
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<tr>
<td>Management by objectives</td>
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### Subjects and Sources for Library Research and Composition

**Suggested by Illinois State Faculty in the Department of Home Economics**

<table>
<thead>
<tr>
<th>Subject</th>
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<tbody>
<tr>
<td>Effect of inflation on families and how to cope with it</td>
<td>Resource Lab in Turner Hall</td>
</tr>
<tr>
<td>Any consumer issues, such as government regulations</td>
<td>Sussman, Young Children; NAEYC journals, Journal of Marriage and Family</td>
</tr>
<tr>
<td>Teaching/learning theory</td>
<td>Handbook of Educational Supervision</td>
</tr>
<tr>
<td>Job preparation, placement, and satisfaction</td>
<td>Home Economics Research Journal; Perceptual and Motor Skills; Social Science Citation Index</td>
</tr>
<tr>
<td>Careers</td>
<td>American Fabrics and Fashions; Textile World Retailweek</td>
</tr>
<tr>
<td>Review of technical articles</td>
<td>Technology textbooks</td>
</tr>
<tr>
<td>Child development research; family research</td>
<td>Existing knowledge of the writer</td>
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<tr>
<td>Administration of programs</td>
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<tr>
<td>Clothing and behavior; for example, Why do we wear clothes? What do clothes communicate?</td>
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<tr>
<td>Textiles—fibers, fabric construction, finishes, dyeing and printing, labeling</td>
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<tr>
<td>Giving directions for completing a technical task or process</td>
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<tr>
<td>Explanation of how a technical device functions</td>
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Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in the
Department of Industrial Technology

Subject

Any safety topic of interest to the student

Potential of using solar heating as a method for heating shelters

The impact of satellites on communication

Trends in accidental death by age category, 1961-81

The effect of OSHA law on worker safety

Plastics technology

Industrial processing

How a knowledge of graphic arts will improve students' future employability

History of a particular technology

Positive and negative effects of technology

Contemporary industrial processes

New industrial materials

Source


Periodicals

National Safety Council, Accident Facts (Annual); Federal reports

(Above periodicals)

Periodicals such as Modern Plastics, Plastic Technology, Plastics Engineering, Plastics World, Plastics Design Forum (best of the preceding list)

Journals such as Production; Iron Age

Graphic Arts Monthly; Inplant Printer
Subjects and Sources (continued)

Subject

Architectural styles

Numerical control machines

Topics of occupational safety such as machine guarding, electrical safety, crane handling, pressure vessels

Topics concerning occupational health—noise, dermatosis, radiation, ergonomics, biological hazards

The social costs of technology on society

Futurism in technology

Energy and power (energy sources, conversion devices, conservation)

Industrial plastics

Future manpower needs for the graphic communications industry

Responses of societal groups to change, technology

Source

National Safety News; Professional Safety; National Fire Protection Association; National Safety Council

American Industrial Hygienists Association; NIOSH publications; OSHA documents

Science; Wall Street Journal; OMNI; Solar Age; Technology Review; National Geographic

(See sources for plastics technology above)

GAFT; Kodak Manpower Study

Journals and texts in sociology, psychology, management
Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Biology

Subject
 Recent discoveries in science
 Basic principles of science, for example, evolution, homeostasis, the "cell"
 Locomotion, flight, pipedal, swimming
 Biological basis for medical treatments
 Interdependency of the organisms in the living world: energy for life
 Use of wastewater as recycled water for future use
 Role of fungi in sod ecosystems
 Theories of evolution
 Ecological relationships—community organization
 Conservation of endangered species
 Nature vs. nurture: the effect of heredity on behavior

Source
 Scientific American
 Basic textbooks; Scientific American; Science; specialty journals
 (Same as above sources)
 Physiology and anatomy textbooks; journals such as New England Journal of Medicine
 Ecological texts; plant physiology textbooks; journals
 Reference books
 Journal articles
 Behavior Evolution (journal)
 Ecology; Ecological Monographs
 Current periodicals in wildlife management; Science; Nature; Natural History
 E. O. Wilson, "On Human Nature"
Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in the Department of Chemistry

Subject

Nuclear power, processing of nuclear fuels

Environmental aspects of chemistry, for example, air pollution, photochemical smog, acid rains

Spliced genes

Biochemical basis of cancer

The evolution of the periodic chart

A comparison of acid-base concepts

Intermolecular forces

Topics in chemistry related to consumer interests

Source

Scientific American; Journal of Education; Science; Science News; American Scientist; Physics Today; various chemical reviews and monographs but no encyclopedias

Environmental Science and Technology and above journals

Scientific American; Science

Scientific American; Science

Linus Pauling

Encyclopedia of Science/Technology; Science/Technology Abstracts; Chemical Abstracts
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<tr>
<td>Causes of patterned ground in periglacial environments</td>
<td>Geologic history of the development of Lake Michigan</td>
</tr>
<tr>
<td>One physical property of mineral</td>
<td>Book on mineralogy</td>
</tr>
<tr>
<td>One surficial process</td>
<td>Texts on physical geology</td>
</tr>
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<tr>
<td>Time—its role in relativity</td>
<td>Textbooks in modern physics; popular articles or books about Einstein</td>
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<tr>
<td>Superconducting solids</td>
<td>Science; Scientific American; Discovery</td>
</tr>
<tr>
<td>Topics relating to energy use; the supply of fossil and other fuels; pollution; growth of consumption; social and economic aspects of energy use; solar energy; nuclear energy; the history of nuclear energy</td>
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Subjects for Composition Using Empirical Research or Coursework Projects as Suggested by Illinois State Faculty in Science and Technology

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<th>Subject</th>
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<tr>
<td>Suggestions from the Department of Agriculture</td>
<td></td>
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<tr>
<td>Alcohol production</td>
<td>U.S. Census and U.S. Agriculture Census</td>
</tr>
<tr>
<td>Feeding buffers to dairy cows</td>
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<tr>
<td>Comparison of agriculture of developing countries with agriculture in the U.S.</td>
<td>George M. Foster, Traditional Societies and Technological Change, 2nd ed.; One Hundred Years of Farm Journal by the editors of Farm Journal; McGraw-Hill Encyclopedia of Food, Agriculture and Nutrition; Another Revolution in U.S. Farming? (USDA) Agriculture in India (Asia Publishing House) Sir Harold Tempary and D. H. Grist, An Introduction to Tropical Agriculture</td>
</tr>
<tr>
<td>Solar energy, alcohol fuels, wind energy</td>
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Suggestions from the Department of Health Science

Has the use of problem-oriented medical records been successful? What other fields have expanded or modified its usage?
Suggestions from the Department of Home Economics

Chart performance of children by computer in physical development as compared with Gesell scores and plan a program of progressive physical development for each child.

Perform a technical task and explain how it works by using facts from a reference book.

Suggestions from the Department of Industrial Technology

Determine the relative conductivity, hardness, strength, etc., of materials.

Attitudes of ISU students about relationship of alcohol to traffic collisions.

Laboratory reports; term paper assignments.

Research on process performance.

Design projects.

Relation of carbon content and hardness in ferrous metals.

Previous surveys; periodicals.


Suggestions from the Department of Biology

Reclamation of strip-mine land.

Laboratory exercises in general ecology, for example, forest analysis, stream fauna, and food chains.

Laboratory manuals.
Any subject in biology, as long as clearcut hypothesis and alternate hypotheses can be formulated and empirically tested. Use of scientific method and generation of testable hypotheses are most important.

Suggestions from the Department of Chemistry

Project in Chemistry 200

Report on project in Chemistry 290

(Comments from faculty in Chemistry: (1) Perhaps concurrent enrollment in Research in Chemistry and English or Research in Biology and English would be an idea to pursue. (2) If I had my way, no student would be able to graduate as a major in chemistry without having had a technical writing course from the English Department preferably before writing laboratory reports as upperclassman.)

Suggestions from the Department of Geology-Geography

Tests of physical properties of minerals

Suggestions from the Department of Physics

Pendulum clock, at rest and accelerated