

Exploring Career Clusters

A modular, hands-on approach to
career exploration by Career Clusters[®]

Agriculture, Food & Natural Resources

Architecture & Construction

★ ***Arts, A/V Technology and Communications*** ★

Business, Management & Administration

Education & Training

Finance

Government & Public Administration

Health Science

Hospitality & Tourism

Human Services

Information Technology

Law, Public Safety, Corrections & Security

Manufacturing

Marketing, Sales & Service

Science, Technology, Engineering & Mathematics

Transportation, Distribution & Logistics

Division of Career Education
Department of Elementary & Secondary Education
Jefferson City, Missouri

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Department of Career & Technology Education
University of Central Missouri
Warrensburg, Missouri

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Advisory Committee

The Advisory Committee for the *Exploring Career Clusters* model course project spent many hours reviewing materials and provided keen insights to direct and shape the curriculum materials. We are sincerely indebted to them for their unselfish service.

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Assessment Recommendations

The purpose of this module is to introduce students to the myriad of Career Fields available within each career cluster being studied. It is **EXPLORATORY**. It should help students gain insight into their own interests and abilities, and learn important information to help them plan their high school courses/major and subsequent postsecondary educational program. As such, the assessment should reflect this and focus primarily on the quality of the students' experiences (not just their skill level) and their ability to complete a meaningful career search, incorporating this information into their Educational Career Plans.

The following is a recommended combination of modules and student assessment guide:

Participation	10
Unit 1: <i>Arts, A/V Technology and Communications</i>	30
Unit 2: <i>Information Technology</i>	30
Unit 3: <i>Transportation, Distribution and Logistics</i>	<u>30</u>
Total	100%

Some activity sheets may be very simple to complete (i.e., may only have a few lines to complete), the Learning Activity includes the “teacher talk” and class discussion. The learning will occur before the activity sheet is completed. A scoring guide or rubric should be established for these activities. See the *Individual Student Record*, page 5.

Individual Student Record

Student: _____ Period: _____ Semester: _____

Learning Activity	Points Possible	Points Earned
<i>Arts, A/V Technology and Communications</i>		
Career Field Matching Activity		
Round Table Exploration Activity		
Design Contract		
Client Criteria (Logo)		
Client Criteria (Package)		
Client Criteria (Print Media)		
Client Criteria (Radio)		
Client Criteria (Video)		
Logo Design Layout		
Package Design Layout		
Print Media Copy		
Radio Ideas		
Video Ideas		
Client Approval Form		
Print Job Form		
Prepress Approval Form		
Printing the Job		
Record of Work		
Prepress Proof		
Interest Assessment		
Career Search Identity		
Educational Career Plan (4-year Plan)		
Total Points		

Arts, A/V Technology and Communications Competencies

The following competencies selected for this unit were taken directly from the Career Cluster resource for *Arts, A/V Technology and Communications* (www.careerclusters.org).

Career Cluster Knowledge and Skills

- Read, understand and respond to English language technical and workplace documents to effectively function in the workplace/jobsite.
- Apply active listening skills to obtain and clarify information.
- Develop and interpret tables, charts and figures to support written and oral communications.
- Perform math operations to complete jobsite/workplace tasks such as estimating, calculating and precision measurement.
- Formulate ideas, proposals and solutions to problems.
- Demonstrate the use of common laboratory equipment and procedures.
- Apply scientific methods for analysis, data gathering, observation, predictions and problem identification.
- Apply knowledge of computers and information processing including accessing and navigating the Internet (e.g., use a web browser) to search for information and resources.
- Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.
- Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.
- Use computer operations applications to manage computer operations such as file storage.
- Explain the major components and benefits of health, safety and environmental management systems in multimedia and printing organizations.
- Select, inspect and use personal protective equipment (PPE) such as safety glasses and respiratory protection to ensure a safe workplace/jobsite.
- Demonstrate personal commitment to safety, health and environment policies and procedures.
- Recognize differences in ethical and legal responsibilities.
- Organize work teams to effectively manage assignments.

Career Cluster Knowledge and Skills (continued)

- Use conflict resolution skills to maintain a smooth workflow.
- Identify and demonstrate positive work behaviors and personal qualities.
- Identify and explore career opportunities in one or more Career Fields.
- Read and explain the various aspects of service contracts to ensure compliance.
- Recognize the relationship between the various parties to a contract in order to interpret responsibilities.
- Access appropriate resources to identify the roles, rights and responsibilities of an employee and an employer.
- Exhibit behaviors showing you are reliable and dependable.
- Maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.
- Select tools, machinery and equipment to match requirements of the job.

Career Field Knowledge and Skills

- Apply knowledge of equipment and skills related to audio and video production.
- Apply knowledge and skills required to design a production for audio-video presentation.
- Demonstrate writing processes used for various journalism and/or broadcast media.
- Demonstrate knowledge and understanding of technical support related to broadcasting.
- Apply knowledge of the process required for the production of various printed products.
- Manage the printing through customer service and sales, scheduling and quality control.
- Apply knowledge of basic printing processes.

Introducing the Arts, A/V Technology and Communications Cluster

The cluster of careers found in *Arts, A/V Technology and Communications* encompasses the production of audio, video and print products as well as performing arts such as theater, dance and other entertainment. Careers in this cluster also involve the management, operation and maintenance of equipment found in these careers. This Career Cluster is divided into six distinct Career Fields made up of specialties/occupations: *Audio and Video Technology and Film; Printing Technology; Visual Arts; Performing Arts; Journalism and Broadcasting; and Telecommunications*. Each group represents a particular aspect of communications. Keep in mind that specialties/occupations may cross over to other Career Fields due to the multileveled tasks involved. For example, the technical computer support technician will be involved with the set up and maintenance of computer systems for all the Career Field occupations. Audio and video engineers may be involved with design of audio and/or video systems for stage, television or radio production.

Each Career Field has distinct knowledge and skill requirements as well as shared common knowledge and skill requirements. Students who understand these relationships will be prepared and able to make informed career decisions. Students should be given the opportunity to explore and investigate not only the traditional career options of graphic designer and audio/video engineer but should be encouraged to touch on the many other related occupations found in this Career Cluster (*see Arts, A/V Technology and Communications Career Fields Chart, page 12*).

Teacher Preparation

The suggested scenario for this unit is the design and production of several multimedia products associated with the Hopping Peg Game board. You should review the whole project and decide on any alterations you want to make to the scenario. You have the option to make part of or the entire project a simulation or a “real life” activity. That is, you may have your students set up a real multimedia system or simulate one electronically or graphically. You may also choose to use a scenario of your own design. If so, you need to include as many occupations as time permits.

Introduce the unit with a short activity which helps students quickly grasp the breadth and depth of this Career Cluster. Be sure to have every student engaged so they can begin the unit of study with the big picture of this career cluster.

Prepare a bulletin board display illustrating the six Career Fields (*Audio and Video Technology and Film; Printing Technology; Visual Arts; Performing Arts; Journalism and Broadcasting; and Telecommunications*) found in the *Arts, A/V Technology and Communications* cluster. Be sure to include photos/illustrations of non-typical careers such as conductors, video system technicians, or plate makers. List under each category some of the key skills and knowledge needed. Remember, the use of bulletin boards, web searches, posters and engaged projects will assist students in learning about and participating in various career experiences.

Reference - “Arts, A/V Technology and Communications Pathways”, “*Career Cluster Resources for Arts, A/V Technology and Communications, National Association of State Directors of Career Technical Education Consortium*” (www.careerclusters.org).

Career Fields (Pathways):

- Audio and Video Technology and Film
- Printing Technology
- Visual Arts
- Performing Arts
- Journalism and Broadcasting
- Telecommunications

Handout: *Arts, A/V Technology and Communications Career Fields Chart* page 12
This handout is for teacher reference for the student activity, “Career Field Matching Activity.” It should not be given to students until after the completion of this activity.

Suggested Activities

Introduction to the Cluster

Chose one of the following activities or design an appropriate activity that will allow students to comprehend the wide array of occupations involved in their built world.

1. How Many Jobs?

Use a PowerPoint presentation, video, photos and/or drawings to show various occupations or products of this occupation in the arts, audio/visual and communications Career Fields. Provide an exhaustive list of jobs and have students or teams of students match the job titles to the photos.

2. What’s in the Package

Collect as many different types of printed packages as you can find. Be sure to include retail packing and commercial shipping packages. Also, make sure you have examples of various package materials such as light weight papers, cardboard, flexible plastics as well as hard plastics and light metals. Be prepared to discuss with students the occupations surrounding the processing and printing of such materials. Relate the occupations necessary to produce such printed objects.

3. The Final Curtain

Use a PowerPoint presentation, bulletin board or a model to display a theater production stage. Be sure to provide performers in costume, sound system and lighting. Have student groups identify as many occupations as they can, then report to the class their findings.

4. Other Resources

Graphic Designer Video Clip

<http://realvideo.acinet.org/ramgen/34035.rm>

Kids Work! Career Exploration

<http://www.knowitall.org/kidswork/index.html>

Kidzonline.org Digital Video Productions

<http://www.kidzonline.org/StreamingFutures/careervideo.asp?careerid=6>

Emints.org, Ethemes

<http://www.emints.org/ethemes/index.shtml>

Webquest.org, web resources for inquiry-based instructional activities

www.webquest.org

Upon completion of the activity, post a list of the various occupations students identified. Be prepared to add to the list those occupations students missed. Be sure to point out occupations that are not obvious.

Career Field Matching

Have students match (even if they have to guess) random list of occupations to the Career Fields found in the *Arts, A/V Technology and Communications* cluster. Discuss with students what makes up each Career Field (see *Student Career Field Matching Activity, page 13*). This activity is designed to help students focus on the vast occupational opportunities available to them in this Career Cluster. It is not important at this point in the course that they are able to recognize most of these occupations. It is important that they begin to see their possibilities. Discuss with students the differences between the six Career Fields without listing the various occupations. Use the following activity or design an appropriate activity to allow students to comprehend the wide array of occupations involved in their built world. You should review the list and become familiar with the occupations (www.collegeboard.com/csearch/majors_careers/profiles and www.stepfour.com/jobs).



Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Career Specialties/Occupations</p>	<ul style="list-style-type: none"> ◆ Video Systems Technicians ◆ Video Graphics, Special Effects, and Animation ◆ Audio-Video Designers and Engineers ◆ Technical Computer Support Technicians, State, Film, Video, and DVD ◆ Audio-Video System Service Technicians ◆ Audio Systems Technicians 	<ul style="list-style-type: none"> ◆ Graphics and Printing Equipment Operators ◆ Lithographers and Platemakers ◆ Computer Typography and Composition Equipment Operators ◆ Desktop Publishing Specialists; Web Page Designers 	<ul style="list-style-type: none"> ◆ Commercial Photographers, Digital, Still, Video, Film ◆ Interior Designers, Commercial/Residential and Home Furnishings coordinators ◆ Graphic Designers, CAD Technicians, and Fashion Illustrators ◆ Textile Designers ◆ Commercial Artists, Illustrators, and Artists, all Media ◆ Curators and Gallery Managers ◆ Fashion Designers 	<ul style="list-style-type: none"> ◆ <i>Production Managers, Digital, Video, Stage</i> ◆ Cinematographers, Film/Video Editors ◆ Dancers ◆ Play Writers, Screen Writers, Screen Editors, Script Writers ◆ Directors and Coaches, Performers, actors, Musicians ◆ Make-Up Artists and Costume Designers ◆ Stagecraft Designers, Lighters, Sets, Sound Effects, Acoustics, Painters ◆ Composers, Conductors, and Music Instructors 	<ul style="list-style-type: none"> ◆ Audio/Video Operations, Control Room Technician ◆ Station Mangers and Radio & TV Announcers ◆ Publishers, Editors, and Journalists and Reporters, Print, Broadcast, Other ◆ Broadcast Technicians 	<ul style="list-style-type: none"> ◆ Telecommunication Technicians ◆ Telecommunication Equipment, Cable, Line Repairers/Installers ◆ Telecommunication Computer Programmers, and Systems Analysts
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Pathways/ .Fields</p>	<p style="text-align: center;">Audio and Video Technologies</p>	<p style="text-align: center;">Printing Technologies</p>	<p style="text-align: center;">Visual Arts</p>	<p style="text-align: center;">Performing Arts</p>	<p style="text-align: center;">Journalism and Broadcasting</p>	<p style="text-align: center;">Telecommunications Technologies</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Cluster K&S</p>	<p style="text-align: center;"><i>Cluster Knowledge and Skills</i></p> <ul style="list-style-type: none"> ◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills 					

Resource: <http://www.careerclusters.org/clusters/sre.htm>

Student Name: _____

Date Assignment Due: _____ Date Assignment Submitted: _____

Activity Satisfactorily Complete: _____ Activity Not Completed: _____

Student Career Field Matching Activity

The *Arts, A/V Technology and Communications* Career Cluster is divided into six Career Fields encompassing the production of audio, video and print products as well as performing arts such as theater, dance and other entertainment. Careers in this cluster also involve the management, operation and maintenance of equipment found in these careers.

The six Career Fields for the *Arts, A/V Technology and Communications* Career Cluster are:

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |

Occupation – Career Field Matching

Given the list below, place the number of the Career Field from the above list next to the occupation it matches. If you think an occupation could match with more than one of the Career Fields, you may put more than one number. Be ready to say why you think the occupation matches the Career Field or Career Fields you listed.

- | | |
|--|--|
| _____ Production Managers
_____ Audio-Video Designers
_____ Telecommunication Computer Programmers
_____ Graphics Equipment Operators
_____ Actors
_____ Commercial Photographers
_____ Graphic Designers
_____ Directors and Coaches
_____ Fashion Designers
_____ Cinematographers
_____ Screen Editors | _____ Systems Analysts
_____ Audio/Video Operations
_____ Audio Systems Technicians
_____ Lithographers
_____ Radio & TV Announcers
_____ Video Systems Technicians
_____ Textile Designers
_____ Technical Computer Support Technicians
_____ Curators
_____ Dancers
_____ Telecommunication Technicians |
|--|--|

- | | |
|--|--|
| _____ Make-Up Artists | _____ Stagecraft Designers |
| _____ Fashion Illustrators | _____ Commercial Artists |
| _____ Station Managers | _____ Publishers |
| _____ Web Page Designers | _____ A/V System Service Technicians |
| _____ Telecommunication Equipment
Repairers | _____ Broadcast Technicians |
| _____ Audio-Video Engineers | _____ Printing Equipment Operators |
| _____ Plate Makers | _____ Conductors |
| _____ Play Writers | _____ Home Furnishings Coordinators |
| _____ CAD Technicians | _____ Control Room Technician |
| _____ Film/Video Editors | _____ Script Writers |
| _____ Musicians | _____ Composition Equipment Operators |
| _____ Desktop Publishing Specialists | _____ Costume Designers |
| _____ Music Instructors | _____ Computer Typography |
| _____ Interior Designers | _____ Journalists and Reporters |

Student Name: **ANSWER KEY**

Date Assignment Due: _____ Date Assignment Submitted: _____
 Activity Satisfactorily Complete: _____ Activity Not Completed: _____

Student Career Field Matching Activity

This activity should not be “scored” for right or wrong answers. The intent is to expose students to the very wide array of occupational options they have in this Career Cluster. “Scoring” should be based on the student’s effort in completing the assignment. You, the teacher, should be actively involved with this activity and use it as an appropriate segue into class discussion about occupational opportunities.

The *Arts, A/V Technology and Communications Career Cluster* is divided into six Career Fields according encompassing the production of audio, video and print products as well as performing arts such as theater, dance and other entertainment. Careers in this cluster also involve the management, operation and maintenance of equipment found in these careers.

The six Career Fields for the *Arts, A/V Technology and Communications Career Cluster* are:

- | | |
|---------------------------------------|-------------------------------|
| 1. <u>A/V Technology and Film</u> | 2. <u>Printing Technology</u> |
| 3. <u>Visual Arts</u> | 4. <u>Performing Arts</u> |
| 5. <u>Journalism and Broadcasting</u> | 6. <u>Telecommunications</u> |

Occupation – Career Field Matching

Given the list below, place the number of the Career Field from the above list next to the occupation it matches. If you think an occupation could match with more than one of the Career Fields, you may put more than one number. Be ready to say why you think the occupation matches the Career Field or Career Fields you listed.

- | | |
|---|------------------------------------|
| <u>4</u> Production Managers | <u>6</u> Systems Analysts |
| <u>1</u> Audio-Video Designers | <u>5</u> Audio/Video Operations |
| <u>6</u> Telecommunication Computer Programmers | <u>1</u> Audio Systems Technicians |
| <u>2</u> Graphics Equipment Operators | <u>2</u> Lithographers |
| <u>4</u> Actors | <u>4</u> Radio & TV Announcers |
| <u>3</u> Commercial Photographers | <u>1</u> Video Systems Technicians |
| <u>3</u> Graphic Designers | <u>3</u> Textile Designers |

<u>4</u> Directors and Coaches	<u>1</u> Technical Computer Support Technicians
<u>3</u> Fashion Designers	<u>3</u> Curators
<u>4</u> Cinematographers	<u>4</u> Dancers
<u>4</u> Screen Editors	<u>6</u> Telecommunication Technicians
<u>4</u> Make-Up Artists	<u>4</u> Stagecraft Designers
<u>3</u> Fashion Illustrators	<u>3</u> Commercial Artists
<u>4</u> Station Managers	<u>5</u> Publishers
<u>2</u> Web Page Designers	<u>1</u> A/V System Service Technicians
<u>5</u> Telecommunication Equipment Repairers	<u>5</u> Broadcast Technicians
<u>1</u> Audio-Video Engineers	<u>2</u> Printing Equipment Operators
<u>2</u> Plate Makers	<u>4</u> Conductors
<u>4</u> Play Writers	<u>3</u> Home Furnishings Coordinators
<u>3</u> CAD Technicians	<u>5</u> Control Room Technician
<u>3</u> Film/Video Editors	<u>4</u> Script Writers
<u>4</u> Musicians	<u>2</u> Composition Equipment Operators
<u>2</u> Desktop Publishing Specialists	<u>4</u> Costume Designers
<u>4</u> Music Instructors	<u>2</u> Computer Typography
<u>3</u> Interior Designers	<u>5</u> Journalists and Reporters

Round Table Exploration

Students should begin this unit by getting a broad overview of the types of occupations they will find in this Career Cluster. They need to see the big picture first before exploring individual occupations.

Teacher Preparation

Identify enough occupations so you will have no more than two or three students working at any one station. Set up stations around your classroom/lab with short activities that represent the six Career Fields of occupations. Be sure to include occupations such as broadcast technician and textile designer as well as typical occupations such as graphic designer and printing equipment operator.

Suggested Activities

Round-Table Exploration Activity

Have students rotate through each station (see *Student Round-Table Exploration Activity*, page 19). On this worksheet, have the students select the level of education/training and basic skills **they think** they would need to successfully work in that occupation (area career center, community college and/or university). Students will research specific career occupations later in the unit of study (print enough *Student Round Table Exploration Information* sheets, page 18, and *Activity* sheets, page 19, for each student).

Round-Table Exploration Examples

Broadcasting – Set up a radio station whereby students can broadcast a “script” to a radio audience. Your setup can be simulated or it can be a “real” closed circuit system. You will want to have all the broadcast components, even if they are simulated.

Printing – Set up a printing process such as “screen printing” and indicate the steps that must be taken to produce a printed product. You may even have the student print. Use photos or labels to indicate the job titles.

Class Discussion

Discuss various academic and career preparation requirements for each of the stations explored by the students. Help students understand the differences between each educational level and occupational level of technician, technologist and professional (see *Student Round-Table Exploration Information* sheet, page 18, in this section and *Definitions of Three Levels of Occupations* sheet, page 46).

Research

Internet search to complete the occupation activity with oral report out. Show students an object and have them identify the occupations and jobs that went into creating that object.

Student Round Table Exploration Information

Every occupation requires a minimum amount of training and/or education and certain basic skills. As you rotate through each of the Occupation Stations, you will be asked to match the education and the skills **you think** are needed to enter that occupation. Below is a list with a brief description of each level. Use these definitions to determine the level needed for each occupation you examine.

Required Education Levels

No Schooling – not completing high school or dropping out at an age allowed by law

High School GEP (General Education Program) – graduating from high school with a general education or college preparatory program

High School CEP (Career Education Program/Area Career Center) – graduating from high school with a program in one of the career education occupations

On-the-Job Training/Apprenticeship – learning a job while you are working in that job (may or may not require a high school diploma)

Trade School – school that teaches specialized skills for specific occupations (can be public schools, private schools, or trade unions)

Military Training – similar to trade schools in that you are taught specialized skills for a specific occupation in the military (requires a minimum of a high school diploma)

Community College (2-year) – two-year college education that leads to an associate's degree and may include specialized technical skills

College/University (4-year) – four-year college education that leads to a bachelor's degree and may include higher levels of specialized technical skills, engineering, science and mathematics on a professional level

College/University (graduate degree) – education after a bachelor's degree in professional Career Fields such as engineering, science, medicine, law, management or education

Required Skills

Reading – Ability to read and comprehend at a high school level

Writing – Ability to write simple and complex sentences with correct spelling, grammar and punctuation which allows for clear communication

Calculating – Ability to perform simple mathematical operations such as add, subtract, multiply and divide and comprehend simple geometric relationships (this may include reading and measuring with a ruler or tape measure)

Computer Literacy – Ability to perform basic computer operations such as save and retrieve files, word processing and spreadsheet operations

Problem Solving/Critical Thinking – Ability to clearly identify and solve problems through a defined process

Leadership/Teamwork – Ability to successfully lead a group and work with a group to accomplish a task or solve a problem

Student Round Table Exploration Activity

Student Name: _____

Date Assignment Due: _____ Date Assignment Submitted: _____

_____ Activity Satisfactorily Completed _____ Activity Not Completed (see notes below)

Fill in the required spaces below after you have completed the activity for each station.

OCCUPATION: _____

Check (✓) the minimum level of education needed for entry to this occupation:

- No School High School (GEP) Community College (2 years)
 Trade School Military Training College/University (4 years)
 High School (CEP) On-the-Job Training College/University (graduate degree)

Check (✓) all the required skills needed for entry to this occupation:

- Reading Writing Calculating
 Computer Literacy Leadership/Teamwork Problem Solving/Critical Thinking

Reflective Response:

Use complete sentences, correct spelling and correct punctuation when completing the statements below. Be sure to read what you write to make sure it is clear to you and others.

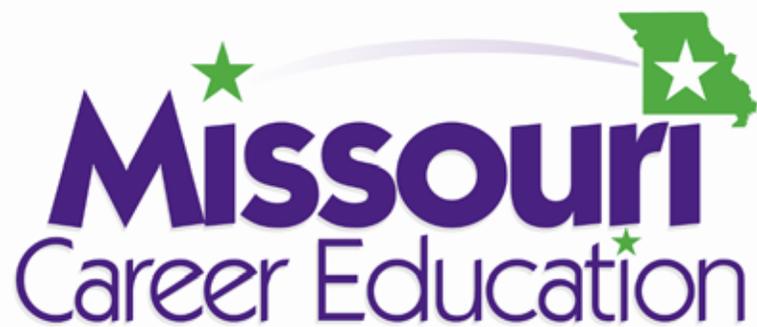
I think this occupation would be fun to work in because or I do not think this occupation would be fun to work in because:

An example of how I might use problem solving in this occupation is:

An example of how I might use teamwork in this occupation is:

The reason I checked _____ as the minimum level of education needed for this occupation is:

The reasons I checked these skills needed for this occupation are:



Exploration

Visual Arts Career Field

Arts, A/V Technology and Communications Career Fields:

Audio and Video Technology and Film

Printing Technology



Visual Arts



Performing Arts

Journalism and Broadcasting

Telecommunications

Possible Careers: Video Graphics Tech • Desktop Publisher • Graphic Designer • Commercial
Artist • Publisher • Photographer

Visual Arts

Our world, both private and public, is driven by the visual. We communicate more visually than by the spoken word. Graphic images, formal and informal, are all around us. They direct, they explain, they entertain. From road signs and billboards to package images and book covers, graphic images play a central role in human communications. As far as we know, graphic imaging may be the oldest form of human communication.

Graphic imaging can be produced simply by drawing something in the sand with your finger or by operating a four-color web press. The process of reproducing graphic images, including typeface, has both been simplified and compounded. The combined use of computers and peripherals such as printers, scanners, plotters and photocopiers make reproduction relatively easy. However, printing such as packaging, especially flexible package printing, requires a very complex and sophisticated machine.

Occupational opportunities abound in the world of graphic imaging and reproduction. Artists, designers and printing technologists are “just a tip of the iceberg” when considering all the possible occupations in visual arts and printing technology. The scenario presented here will allow your students to experience just a few of the many occupations needed to design, develop and produce graphic products. It is important to “infuse” as many occupations as possible in this process, even if students do not actually have the opportunity to experience them through hands-on practice.

Teacher Preparation

Prepare a bulletin board or other visual display illustrating the graphic process from design to produced product. Be sure to include a mixture of gender and ethnicity in your displays. Have on hand several different types of graphic examples for students to view.

Prepare to discuss and demonstrate the process of using client criteria to create successful graphic designs. Help students recognize the need to consider not only client criteria but graphic layout standards and elements and principles of design. You may want to arrange a visit from a graphic artist or one of your school art teachers to discuss graphic design and their occupations.

This scenario presents five design projects a student company could complete. You may choose to have them do all five projects or select fewer ones depending on teacher abilities, students’ abilities, facilities and budget. You may choose to have different teams participate in only one or two of the projects. Choosing two or three will still give students adequate hands-on experience.

Suggested Activities

Design Contract (Product Logo, Package Graphics, Print Media, Radio and Video)

The first step in this process is to estimate the cost of the graphic designs, ad layouts and video production. After estimating the cost, review and fill out the *Design Contract* with students. Estimates only need to be approximate. Remember, this is only a simulation. It is necessary they understand what a contract is and how important it is to live up to a contract (see *Student Design Contract worksheet, page 29*).

Client Criteria-Logo

Go over the *Client Criteria* form with your students to determine what requirements will be used for the design of the product logo. This example is for the Hopping Peg Game project. You may choose to use another project, in which case you will need to develop a different *Client Criteria* list (see *Student Client Criteria-Logo worksheet, page 30*).

Client Criteria-Package Graphic Design

Go over the *Client Criteria* form with your students to determine what requirements will be used for the graphic design of the package. This example is for the Hopping Peg Game project. You may choose to use another project, in which case you will need to develop a different *Client Criteria* list (see *Student Client Criteria-Package Graphic Design worksheet, page 31*).

Client Criteria-Print Media Advertising

Go over the *Client Criteria* form with your students to determine what requirements will be used for the news media advertisement (newspaper/magazine). This example is for the Hopping Peg Game project. You may choose to use another project, in which case you will need to develop a different *Client Criteria* list (see *Student Client Criteria-Print Media Advertising worksheet, page 32*).

Client Criteria-Radio Advertising

Go over the *Client Criteria* form with your students to determine what requirements will be used for the development of the radio “spot.” This example is for the Hopping Peg Game project. You may choose to use another project, in which case you will need to develop a different *Client Criteria* list (see *Student Client Criteria-Radio Advertising worksheet, page 33*).

Client Criteria-Video (Television) Advertising

Go over the *Client Criteria* form with your students to determine what requirements will be used for the development of the video “spot.” This example is for the Hopping Peg Game project. You may choose to use another project, in which case you will need to develop a different *Client Criteria* list (see *Student Client Criteria-Video (Television) Advertising worksheet, page 34*).

Logo Graphic Design Layout Ideas

This activity will give students the opportunity to brainstorm ideas for a product logo layout based on the criteria established in the first activity. Review with students fundamental rules to follow for logo design before they begin this activity. Student Teams (or individuals) should use ¼” graph paper to record their logo ideas for the design problem. You may want to give them logo ideas or sample logos of existing products or companies. Be sure the students label location sizes and colors used. Require students to check each other’s work to make sure design concepts meet all of the client criteria. This will give them teamwork experience (see *Logo graphic design layout activity, page 22*).

Package Graphic Design Layout Ideas

This activity will give students the opportunity to brainstorm ideas for a graphic package layout based on the criteria established in the first activity. Review with students what information is included on a standard package before they begin this activity. Student teams (or individuals) should use ¼” graph paper to record their layout ideas for the design problem. Consider providing a pattern of the box to layout their design ideas or require them to sketch or draft the pattern. Be sure the students label location sizes and colors used. Require students to check each other’s work to make sure design concepts meet all of the client criteria. This will give them teamwork experience (see *Package Graphic Design layout activity, page 22*).

Print Media Advertisement Layout Ideas

This activity will give students the opportunity to brainstorm ideas for a newspaper and/or magazine layout based on the criteria established in the first activity. Review with students what information is included on an advertisement and basic layout rules to follow before they begin this activity. Student teams (or individuals) should use ¼” graph paper to record their layout ideas for the advertisement problem. Consider reviewing good advertisement examples found in newspapers and/or magazines. Be sure the students label location sizes and colors used. Require students to check each other’s work to make sure design concepts meet all of the client criteria. This will give them teamwork experience (see *Print Media Advertising activity, page 22*).

Radio Spot Ideas

This activity will give students the opportunity to brainstorm ideas for a short radio advertisement based on the criteria established in the first activity. Review with students what information is included in a standard radio message before they begin this activity. Student teams (or individuals) should write several text examples. Consider providing recorded samples of radio advertisement to help direct their concept developments. Be sure the students time their readings to meet the time requirement. Require students to check each other’s work to make sure the text meets all of the client criteria. This will give them teamwork experience (see *Radio Advertising activity, page 22*).

Video (Television) Advertisement Ideas

This activity will give students the opportunity to brainstorm ideas for a short video advertisement based on the criteria established in the first activity. Review with students what information is included in a standard video message before they begin this activity. Student teams (or individuals) should storyboard several examples. Consider providing recorded samples of video advertisements to help direct their concept developments. Be sure the students estimate run time to meet the time requirement. Require students to check each other's work to make sure the storyboard message meets all of the client criteria. This will give them teamwork experience (see *Video (Television) Advertising activity, page 22*).

Client Approval

Students need to understand that the process of design includes meeting the desires, wants and needs of the client. This activity provides accountability for the designer (student). The *Client Approval* form also provides the teacher with a method of assessing the student work (see *Client Approval form, page 35*).

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer · Commercial Artist ·
Publisher · Photographer · Cost Estimator

Visual Arts - Student Handout

Student Multimedia Company, Inc. (SMCI) has been awarded a contract to provide various graphic design finished products for the Hopping Peg Game Company of Game Town, Missouri. The company has asked SMCI to design the graphics and related required information for a package to contain the Hopping Peg Game. In addition, Hopping Peg Game Company requires a full page ad for newspaper and magazine print advertising the game. This will be followed up with an audio and video clip for radio, TV and web video streaming.

You have been employed by SMCI to fulfill one or more jobs in the company. You will be issued your assignment(s) by SMCI management. You should read the Contract completely and become familiar with the requirements. Your responsibilities will be provided as each job is announced. Begin the job by completing the tasks listed below.

Learning Objectives

Design Logo

Upon successful completion of this assignment, you will be able to:

- list the steps required to design a product logo with specific requirements.
- explain why the designer needs to meet client criteria.
- defend design concept based on client criteria.

Design Package Graphic

Upon successful completion of this assignment, you will be able to:

- list the steps required to design the graphics for a package with specific requirements.
- explain why the designer needs to meet client criteria.
- defend design concept based on client criteria.

Design News Media Advertisement

Upon successful completion of this assignment, you will be able to:

- list the steps required to design the graphic layout for a newspaper and a magazine advertisement with specific requirements.
- explain why the designer needs to meet client criteria.
- defend design concept based on client criteria.

Design Radio Spot

Upon successful completion of this assignment, you will be able to:

- list the steps required to design a radio advertisement with specific requirements.
- explain why the designer needs to meet client criteria.
- defend design concept based on client criteria.

Design Video Spot

Upon successful completion of this assignment, you will be able to:

- list the steps required to design a TV advertisement with specific requirements.
- explain why the designer needs to meet client criteria.
- defend design concept based on client criteria.

Design Tasks

Complete the following tasks to begin the design job.

Design Logo

- Investigate the steps taken to design a logo and the most important things to remember when designing the logo.
- Investigate what information is included in a logo.
- Investigate the criteria the client may have for their logo.

Design Package Graphic

- Investigate the steps taken to design a graphic for the client's package.
- Investigate what information is included in on a package.
- Investigate the criteria the client may have for their package graphics.

Design News Media Advertisement

- Investigate the steps taken to design a newspaper and/or magazine advertisement.
- Investigate what information is included in a newspaper and/or magazine advertisement.
- Investigate the criteria the client may have for their newspaper and/or magazine advertisement.

Design Radio Advertisement

- Investigate the steps taken to design a radio advertisement.
- Investigate what information is included in a radio advertisement.
- Investigate the criteria the client may have for their radio advertisement.

Design Television Advertisement

- Investigate the steps taken to design a TV advertisement.
- Investigate what information is included in a TV advertisement.
- Investigate the criteria the client may have for their TV advertisement.

Design Steps

1. Interview the client to identify the design criteria and then complete the Design Contract (*see Student Client Criteria form and Student Design Contract form*) for each of the following jobs:
 - A. Logo Design
 - B. Package Graphic Design
 - C. Newspaper and/or Magazine Advertisement
 - D. Radio Advertisement
 - E. TV Advertisement
2. Follow the required steps as outlined by your manager (instructor) for each of the jobs listed in #1 above.
3. Obtain approval from the client on at least one of your design ideas (*see Student Client Approval Form*).

Designing a Logo

The graphic designer will begin sketching ideas for a logo once the client criteria (*See Student Client Criteria-Logo activity*) have been documented. These ideas are usually quick freehand sketches that record ideas the designer has in mind. When the sketches are drawn, the graphic designer will also put important notes such as typeface, font size, color or other information to remind them later about such details. The date is also important to include on the sketches to keep record of when ideas are developed. Often, the graphic designer will produce ten, fifteen, twenty or more ideas before deciding on one or two ideas to present to the client.

Ten Tips to Remember When Designing a Logo

Keep your design simple.

How will the logo be used for the company product? Will it be both a name and icon, or name alone? (Don't use an icon alone unless the company has a long history.)

Research what is already out there.

Put together a list of popular existing logos that are used in similar situations. This will provide creative stimulation. Study the samples for good and bad characteristics, then put them away and don't look at them until your own logo design is completed.

Use only black and white for preliminary designs.

The logo will need to work in black and white if photocopied or faxed. However, by focusing on typeface, shape and size, and not color, a well-proportioned logo can be developed. Translate the design to color once the basic design is complete.

Company name clearly identifiable.

The company name must be easily seen and clear to read. Customers should not have to "guess" or "search" for the name.

Choosing the right colors for the logo.

The most cost effective and efficient way to print a logo is with two colors. Be sure to use good color rules.

Typeface choice is important.

No more than two typefaces should be used. These typefaces should be chosen wisely. Typefaces should match the company or product the logo is representing.

The logo should remain readable in various sizes.

The logo should be legible from the smallest to the largest size. Evaluate readability by reducing it to the smallest size it will be used.

Set the logo aside.

When the logo design is complete, set it aside for a day. This break will give you a fresh look.

Refrain from clip art.

Use clip art only if it enhances the design. Most clip art will make the logo look amateurish.

Convert your layout to a mockup.

Logos are used in several places such as letterhead, business cards, signage and package graphics. Try the logo out on some or all of these.

The task is now to design an appropriate logo using the client criteria gathered at the client interview. Your manager (instructor) will now provide a job task. Once completed, obtain client approval.

Note: The 10 Tips shown above are a summary from Charles Nartey, Nataris Limited, London, England.
<http://graphicdesign.about.com/od/designinglogos/tp/logotips.htm>

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer · Commercial Artist ·
Publisher · Photographer · Cost Estimator

Student Design Contract

Assessment Score: _____

This Contract made and entered into this _____ day of _____, 20_____,
between _____

Print Name

called "Client" whose address is _____

and Student Multimedia Company, Inc., called "Designer" whose address is _____

Class Hour/Period

Both parties hereby agree:

1. DESIGN CRITERIA: Client will provide criteria for the design of the project.
2. GRAPHIC/AUDIO/VIDEO PROJECT: Designer will provide required designs (Logo/Package Graphics/News Media/Radio Ad/TV Ad) for Client approval.
3. PAYMENT: Client agrees to pay Designer the agreed points of _____, together with any additional points agreed upon prior to execution of said Contract. Final payment will be made upon final approval of the completed project by the Client.
4. COMPLETION: Designer shall begin design work immediately upon obtaining signed contract and shall have project completed no later than _____, subject to permissible delays as described in School Student Handbook and/or Instructor Regulations.
5. WORK PERFORMANCE: Designer shall perform all work and shall not pass on or relegate work to any subcontractor (student) inside or outside of class.
6. TOOLS & EQUIPMENT: Designer shall be responsible for the safe and correct use of all tools and/or equipment used by Designer to complete the project.
7. DESIGN MATERIALS & SUPPLIES: Designer shall be responsible for requesting and obtaining all necessary materials and supplies for the project.
8. SAFETY: Designer shall be responsible for knowing and following all general and specific safety rules while working on the project. Designer shall keep work area clear of all clutter and/or hazards at all times during the project.

Design Criteria:

Client Signature

Designer Signature

Print Name

Print Name

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer ·
Commercial Artist · Publisher · Photographer

Student Name: _____

Client Meeting Date: _____

Assessment Score: _____

Student Client Criteria - Logo

A logo, or logotype, is a symbol, sign, or identifier graphically designed to represent or stand for the image of a company or product. The logo is designed with specific typeface or font arranged in a way no other logos are. Distinctive shapes, colors and designs are arranged in a unique manner to represent a company's or product's quality and provide a unique recognition. For these reasons, you must understand your client's target market to design the appropriate logo.

Client Criteria

Client Contact: _____

Company Name: _____

Company Address: _____

Client Questionnaire

These are questions to use to get started in an inquiry to identify what the client's wants and needs are. Use them as a guide. Consider what other questions could be asked to gain insight into the client's needs.

What is the average age of the target market? _____

What level of education do they have? _____

What gender is the majority of the target market? _____

What is the most important benefit to your customers? _____

Describe the benefits of your company/product: _____

Do you want your logo to be all graphic, all text, or a combination of both?

___ Graphic Only ___ Text Only ___ Combination of Graphic & Text

As people view the logo, what is the first thing you want them to think? _____

How will the logo be used? ___ Signage ___ Web ___ Print (Newspaper, etc.) ___ Product

Is the company recognized by any specific color(s)? If so, what colors? _____

Other information: _____

Reference: <http://graphicdesign.about.com/od/designinglogos/tp/logotips.htm>

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer ·
Commercial Artist · Publisher · Photographer

Student Name: _____

Client Meeting Date: _____

Assessment Score: _____

Student Client Criteria - Package Graphic Design

A product package is far more than just a container for a company. The package also advertises or sells the product and the company. Therefore there is serious consideration when it comes to the graphic design of a package. The designer must obtain enough information from the client to know what kind of image the company wants to project.

Client Criteria

Client Contact: _____

Company Name: _____

Company Address: _____

Client Questionnaire

These are questions to use to get started in an inquiry to identify what the client's wants and needs are. Use them as a guide. Consider what other questions could be asked to gain insight into the client's needs.

What is the product to be packaged? _____

What is the function of the product? _____

What is the average age of the target market? _____

What level of education do they have? _____

What gender is the majority of the target market? ___ Female ___ Male ___ Both

Will the product be sold individually or in multiples? ___ Individually ___ Multiples

Are there any safety concerns/warnings for this product? If so, what are they?

Reference: <http://www.punahou.edu/acad/sanders/geometrypages/GP25Packaging.html>

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer ·
Commercial Artist · Publisher · Photographer Cost Estimator

Student Name: _____

Client Meeting Date: _____

Assessment Score: _____

Student Client Criteria - Print Media Advertising

Newspaper and magazine advertisements have the power to reach thousands of people each day. If they are designed correctly, they can be very successful for the client. And of course, if they are designed poorly, it can mean disaster for the client. Success begins by understanding clearly what the client needs are.

Client Criteria

Client Name: _____

Company Name: _____

Company Address: _____

Client Questionnaire

These are questions to use to get started in an inquiry to identify what the client's wants and needs are for a newspaper or magazine advertisement. Use them as a guide. Consider what other questions could be asked to gain insight into the client's needs.

What is the product to be sold? _____

What is the function of the product? _____

What is the average age of the target market? _____

What level of education do they have? _____

What gender is the majority of the target market? ___ Female ___ Male ___ Both

Will the product be sold individually or in multiples? ___ Individually ___ Multiples

Are there any safety concerns/warnings for this product? If so, what are they? _____

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer ·
Commercial Artist · Publisher · Photographer · Cost Estimator

Student Name: _____

Client Meeting Date: _____

Assessment Score: _____

Student Client Criteria - Radio Advertising

A good radio ad is designed to grab attention and involve the listener. In 30 to 60 seconds, it should sound believable, create a positive image and keep the product centered in the mind of the potential customer. The “perfect” radio ad speaks directly to the customer and demands attention. For this reason, it is important to understand the product and the client’s needs for the ad.

Client Criteria

Client Name: _____

Company Name: _____

Company Address: _____

Client Questionnaire

These are questions to use to get started in an inquiry to identify what the client’s wants and needs are for a newspaper or magazine advertisement. Use them as a guide. Consider what other questions could be asked to gain insight into the client’s needs.

What is the product to be sold? _____

What is the function of the product? _____

What is the average age of the target market? _____

What level of education do they have? _____

What gender is the majority of the target market? ___ Female ___ Male ___ Both

Will the product be sold individually or in multiples? ___ Individually ___ Multiples

Are there any safety concerns/warnings for this product? If so, what are they? _____

Reference: <http://www.dummies.com/WileyCDA/DummiesArticle/id-2920.html>

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer ·
Commercial Artist · Publisher · Photographer Cost Estimator

Student Name: _____

Client Meeting Date: _____

Assessment Score: _____

Student Client Criteria - Video (TV) Advertising

A good TV ad is designed to grab attention and involve the viewer. In 30 to 60 seconds, it should sound and look believable, create a positive image and keep the product centered in the mind of the potential customer. The “perfect” TV ad speaks directly the customer and demands attention. For this reason, it is important to understand the product and the client’s needs for the ad.

Client Criteria

Client Name: _____

Company Name: _____

Company Address: _____

Client Questionnaire

These are questions to use to get started in an inquiry to identify what the client’s wants and needs are for a newspaper or magazine advertisement. Use them as a guide. Consider what other questions could be asked to gain insight into the client’s needs.

What is the product to be sold? _____

What is the function of the product? _____

What is the average age of the target market? _____

What level of education do they have? _____

What gender is the majority of the target market? ___ Female ___ Male ___ Both

Will the product be sold individually or in multiples? ___ Individually ___ Multiples

Are there any safety concerns/warnings for this product? If so, what are they? _____

Possible Careers: Video Graphics Tech · Desktop Publisher · Graphic Designer · Commercial Artist ·
Publisher · Photographer · Cost Estimator

Student Client Approval Form

TO BE COMPLETED BY THE DESIGNER

- Attach finished design to this sheet.
- Explain below why you believe this design meets the criteria.

Print Designer's Name

Date Designs Submitted

TO BE COMPLETED BY THE CLIENT

The Client hereby (check one)

- accepts the attached design from the designer in full
- accepts the attached design in part with the following changes to be made:

1. _____

2. _____

3. _____

Use reverse side if needed

- rejects the attached design based on the following:

1. _____

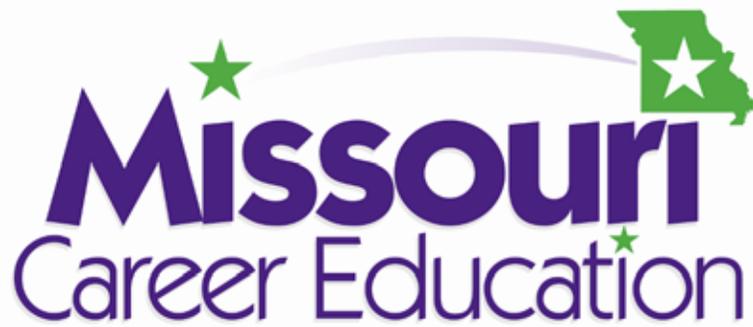
2. _____

3. _____

Use reverse side if needed

Client Signature

Date Reviewed



Exploration

Printing Technology Career Field

Arts, A/V Technology and Communications Career Fields:

Audio and Video Technology and Film

★ **Printing Technology** ★

Visual Arts

Performing Arts

Journalism and Broadcasting

Telecommunications

Possible Careers: Graphics & Printing Equipment Operator · Desktop Publisher
· Lithographer · Platemaker · Computer Typography & Composition Equipment Operator

Printing Technology

Everything graphic that is multiple copied is done so by means of a printing process. And every commercially produced printing process has three stages—prepress, press and binding or postpress. Small print shops usually have one person that does it all. They will proof check for errors and clarity of print and correct mistakes. Plus, they will print the job and bind the materials! Larger printing firms will have specialized workers responsible for each task. The first stage is performed by prepress technicians. These technicians prepare the material for the printing press (no matter what the printing process). They make sure text and pictures are correct on the finished pages and then make printing plates or screens of the pages.

The printing machine operator prepares, operates and maintains the printing presses in a pressroom. Offset lithography, gravure, flexography, screen printing, letterpress and digital are the types of printing processes found in print shops today. Regardless of the process type, the tasks remain the same. You will need to decide which process or processes you will have your student work with.

The final stage of the printing process is bindery. Depending on the material being printed, the binding job may be just collating and folding or it may include stapling or sewing.

Teacher Preparation

Prepare a bulletin board or other visual display that illustrates the many printing processes used today. Be sure to include a mixture of gender and ethnicity in your displays. Have on hand several different types of printed graphic examples for students to view.

Using a PowerPoint, demonstrate the various jobs found in the printing process. Stress the need for accuracy and completing the job on time.

Decide what type of printing process or processes the students will be doing. This, of course, will depend on the equipment available. Remember, the process steps of prepress, printing and postpress or binding are the same for all print jobs.

Suggested Activities

Print Job Form (Package Graphics Printing)

The first step in the printing process is to estimate the cost of the printing job. To do this, certain information must be gathered from the client. Students should use the *Print Job Form* to record this information and estimate the printing cost. Help them understand that this form is a type of contract between the printing company and the client. Also review with your students what a contract is and how important it is to live up to a contract (see *Print Job Form worksheet, page 40*).

Prepress Activity

The *prepress technicians*, often called *preflight technicians* or *production coordinators*, take the electronic files received from customers, check it for completeness and format it

into pages using electronic page layout systems. Once the formatting has been complete the technician reviews the print “proof” with the client and gets their “signoff. Once the client gives their “approval to print,” the process moves to the *printing* stage (see *Printing Services Prepress Proof worksheet, page 41*).

Printing the Job

You will want to give students information about the basic printing processes of lithography/offset, flexography, gravure/rotary, screen printing and digital. More specific information and technical operating instructions will need to be given for the process your students will be using.

References/Resources

<http://stats.bls.gov/oco/ocos231.htm>

<http://stats.bls.gov/oco/ocos230.htm>

<http://stats.bls.gov/oco/ocos232.htm>

Possible Careers: Graphics & Printing Equipment Operator · Desktop Publisher ·
Lithographer · Platemaker · Computer Typography & Composition Equipment Operator

Student Printing Technology

Student Multimedia Company, Inc. (SMCI) has been awarded a contract to print the package blanks for the Hopping Peg Game Company of Game Town, Missouri. The company has asked SMCI to print the graphics and related required information on package blanks for the Hopping Peg Game. The printing process will be determined by SMCI management (the instructor). You have been employed by SMCI to fulfill one or more jobs in the printing department of the company. These jobs will be in the areas of *prepress*, *press* and/or *bindery* (or postpress). You will be issued your job assignment(s) by SMCI management. Your responsibilities will be provided as each job is announced. Begin the job by completing the interviewing the client to obtain the necessary information about the printing job.

Learning Objectives

Prepress

Upon successful completion of this assignment, you will be able to:

- List the steps required to prepare materials for printing.
- Explain the process of “proofing” and why it is necessary.

Press (Printing)

Upon successful completion of this assignment, you will be able to:

- Describe the major types of printing processes.
- List the steps required to print material.
- Identify the major safety concerns in the printing process.

Bindery (Postpress)

Upon successful completion of this assignment, you will be able to:

- Describe the binding processes used in the postpress process.
- List the major safety concerns in the bindery process.

Print Tasks

Complete the following tasks to begin the print job.

Prepress

- Investigate the steps that need to be taken to perform Prepress tasks.
- Review the client criteria for the job.

Press (Printing)

- Investigate types of processes and select the appropriate method for the job.
- Review the safety guidelines for the printing process you will be doing.

Bindery (Postpress)

- Investigate types of processes and select the appropriate method for the job.
- Review the safety guidelines for the bindery process you will be using.

Printing Steps

1. Prepress. Perform the appropriate prepress tasks to assure material is ready to print. These will include checking for completeness, format for appropriate paper stock and print a “proof” for client to approve.
2. Review proof with client and have the client complete the Proof Sheet.
3. Set up printing equipment and print required number of prints.
4. Run printed materials through binding process.

Student Multimedia Company, Inc.			
PRINT JOB FORM			
Job Number: _____	Date Received: _____	Date Needed: _____	Pre-Press Date: _____
Job Description:			
Person Requesting Job:		Phone No.:	
Quantity:			
INK		PAPER	
<input type="checkbox"/> Black	<input type="checkbox"/> Maroon	<input type="checkbox"/> White Bond	<input type="checkbox"/> Colored Bond
<input type="checkbox"/> Cyan	<input type="checkbox"/> Blue	<input type="checkbox"/> 70 #	<input type="checkbox"/> Index
<input type="checkbox"/> Magenta	<input type="checkbox"/> Green	<input type="checkbox"/> 60 #	<input type="checkbox"/> Cover Stock
<input type="checkbox"/> Yellow	<input type="checkbox"/> Purple	<input type="checkbox"/> Generic LH	<input type="checkbox"/> Rag Bond
<input type="checkbox"/> Red	<input type="checkbox"/> Orange	<input type="checkbox"/> Transparency	<input type="checkbox"/> Paper Furnished
<input type="checkbox"/> Brown	<input type="checkbox"/> Silver	<input type="checkbox"/> Labels	<input type="checkbox"/> Other:
<input type="checkbox"/> Gold	<input type="checkbox"/> Varnish	Size _____ X _____ Color: _____	
<input type="checkbox"/> Special:	Colors:		
Cover Ink:	Colors:		
	Sides:		
	Sides:		
BINDERY			
<input type="checkbox"/> Fold	<input type="checkbox"/> Collate	<input type="checkbox"/> Stitch	<input type="checkbox"/> Score
<input type="checkbox"/> Glue	<input type="checkbox"/> Die Cut	<input type="checkbox"/> Drill	<input type="checkbox"/> Perforate
<input type="checkbox"/> Pad _____ sheets to pad	<input type="checkbox"/> Flat Size _____ X _____		
<input type="checkbox"/> Number from _____ to _____	<input type="checkbox"/> Finished Size _____ X _____		
<input type="checkbox"/> Wrap _____ sheets to pkg.			
Special Instructions:			

Student Multimedia Company, Inc.

Printing Services Pre-Press Proof

Job Number: _____

Proof Number: _____



Check all elements carefully on each proof.



Mark all changes in red on this proof.



Return all original copies, artwork, and proofs.

Proofreader: _____

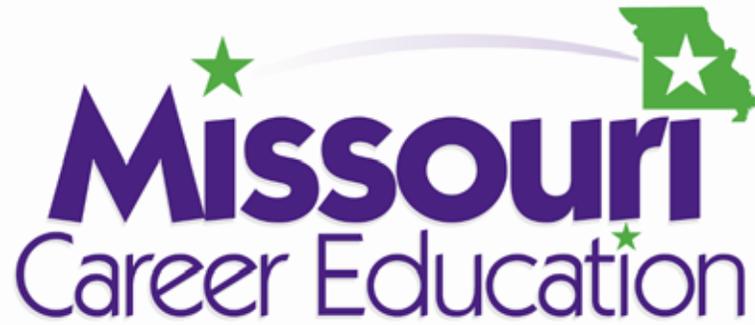
Phone No. : _____

Initial: Correct as is: _____ Changes: _____

List pages with changes _____

Comments:

Return to Printing Services by: _____



Career Search

Arts, A/V Technology and Communications

Introduction to Career Search

The students have spent the last few weeks in hands-on experiences within this Career Cluster, gaining an understanding of and an appreciation for various occupations. They should also have gained some understanding of what knowledge and skills are needed to enter these occupations. This unit of study is intended to help the student gain more detailed information about specific occupations that interest them. Before attempting the search, the students should take an interest survey to give them insight and direction. The students will then be ready to select their occupations of interest and complete the career search. Remember, a major objective of this course is for the students to gain an educated understanding of career options within specific clusters.

Teacher Preparation

There are several references available for teachers and students. View these references before finalizing the lessons and before students begin their career search. Visit with the school guidance counselor(s) at the beginning of this course to coordinate efforts and arrange time for the counselor to help. Contact the area career center to arrange class presentations and/or a tour of the center facilities and programs.

Note: Teacher enthusiasm for this unit will be a huge encouragement for students. Help them understand good planning now will save them time and money later. Emphasize the fact that plans can change and what they select now can be altered at any point in their high school and/or college life. Additionally, encourage students to share their findings with their parents or guardians.

Although there are many resources available in print and online for teachers and students, Missouri Kuder (<http://mo.kuder.com/>) is the official college and career planning program recognized by Guidance and Placement Services, Division of Career Education, Department of Elementary and Secondary Education. The school guidance counselor will be able to help access the website.

Prepare a bulletin board that displays various educational options after high school in this career cluster. Be sure to include both local and distant schools, as well as low to high cost schools.

Resources/References

- Missouri Kuder, <http://mo.kuder.com>
- Missouri Guidance and Placement Services, http://dese.mo.gov/divcareered/career_plan.htm
- Explore Careers, <http://www.iseek.org/sv/10000.jsp>
- Gettech, <http://gettech.org/default2.asp>
- Vocational Information Center, <http://www.khake.com>
- Technology Careers, <http://www.fieldstotechnology.org>
- Career Voyages, US Government, <http://www.careervoyages.gov>

Suggested Activities

Interest Assessment (if not taken previously)

(This activity will only need to be completed once in the semester.) Take the interest assessment (Kuder® Career Search with Person Match), the skills inventory (Kuder Skills Assessment) and print out the Composite Report from these two. If possible, enlist the help of the school guidance counselor. Go to <http://mo.kuder.com/> to find the assessment documents.

Career Search Identity

You will want to make sure your students have the *Arts, A/V Technology and Communications Career Fields Chart* (page 12) available so they can select occupations relevant to this career cluster search. Decide how many searches the students should complete. It is suggested that they complete one search for each of the occupational levels: technician, technologist and professional. Consider asking them to complete more if time permits.

Handout: *Definitions of the Three Levels of Occupations* (page 46)

This handout will give the students a brief description the three levels of occupations students might find in any Career Field. This is a way of recognizing different levels of education and skills needed for an occupation.

Handout: *MLA Citation Style* (page 51) and *APA Crib Sheet* (page 54)

The students will be asked to cite their sources of information. These handouts will give them the correct format for citing different sources. Review this with them. Consider checking with the school English teachers and/or librarian to confirm the style(s) being taught in your building.

Career Center Presentation (if not completed previously)

Contact your career center director or guidance counselor and make arrangements for a tour of the center facilities and a presentation of the programs the center offers. If it is not possible to tour the facilities, arrange for presentations by career center faculty in your classroom or lab. Make sure the presentations include photos. If possible, make a video tour of the center with interviews by faculty and students.

Handout: *Career Center Information* (teacher designed)

Design an information sheet with appropriate questions about the various programs offered by your career center in the cluster area of *Arts, A/V Technology and Communications*. Include such topics as the type of activities for students, certifications available, types of jobs after the program, transferability to college and characteristics students should possess to be successful in each program.

Four-Year High School Plan

Enlist the assistance of the guidance counselor. Have the students identify courses that will prepare them for post high school employment and/or higher education programs. Use Missouri Kuder and the *Missouri Educational Career Plan* (Arts, A/V Technology and Communications) form (page 49) and also found at http://dese.mo.gov/divcareered/career_plan.htm.

Student Definitions for Occupations Levels



TECHNICIAN

Technicians typically build, repair, maintain and/or operate specialized, complex, technical equipment and systems. A technician receives technical training through an apprenticeship program (on-the-job), a technical certification program or a two-year associate degree college program.



TECHNOLOGIST

Technologists typically work as technical managers and must be able to understand theories and apply the principles and concepts of mathematics, science and applications of computer fundamentals. Generally, a technologist is college educated with a four-year degree, which includes general education, technical specializations and technical management.



PROFESSIONAL

A professional is a person who has an occupation requiring training in the liberal arts or the sciences and usually advanced study (course work or training after the bachelor's degree or a master's degree) in a specialized Career Field such as, but not limited to, architects, engineers, upper level managers, certified accountants and educators.

Career Fields: A/V Technology and Film • Printing Technology • Visual Arts •
Performing Arts • Journalism and Broadcasting • Telecommunications

Student Career Search Identity

Student Name: _____ **Graduation Year:** _____

Activity Completed: _____ **Activity Assessment:** _____

Your career search is designed to help you gain understanding and knowledge about career possibilities within your interest of the Career Cluster *Arts, A/V Technology and Communications*. Based on your recent experiences in this class and the interest assessment you took in Kuder, you will choose at least one occupational Career Field and an occupation from each of the three levels of occupations: technician, technologist and professional. When you have completed your search, you will:

1. know what level of education you must have.
2. know what technical skills you must have.
3. know what academic skills you must have.
4. know what the working conditions will be.
5. know what the average wage/salary will be.
6. know what the outlook for jobs will be.
7. know where the jobs will be found.

You should select your occupations from the *Arts, A/V Technology and Communications Career Fields Chart*. Within each Career Field, occupations can be divided into three levels: 1) technician, 2) technologist and 3) professional. You are to select one occupation from each of the occupational levels which may be from one Career Field or all three Career Fields. Your teacher can help you decide what level your choice of occupation falls under. Complete the following information:

Occupations I will research:

Career Field	Technician: _____ Occupation
Career Field	Technologist: _____ Occupation
Career Field	Professional: _____ Occupation

Possible Careers: Audio/Video Engineer – Animator – Media/Instructional Designer – Streaming Media Specialist – Web Page Developer – Webmaster – Multimedia Authoring Specialist – 2D/3D Artist – Virtual Reality Specialist – Web Page Designer

Student Career Search Activity

Career Field: _____ **Student Name:** _____

Activity Completed: _____ **Activity Assessment:** _____ **Graduation Year:** _____

Occupation: _____ **Level:** ___ Technician ___ Technologist ___ Professional

Sources of Information - Refer to Bibliographic Style Sheet for correct format to cite references: _____

Work Activities - Provide at least four activities this person would do on the job:

Work Conditions - List at least three physical conditions you would work under and if you would be required to work with other people:

Are you required to work with other people? _____ Yes _____ No

Skills, Abilities and Knowledge - List the required skills, abilities and knowledge in each of the areas listed below:

Communication: _____

Math Level: _____

Science Knowledge: _____

Technical Knowledge: _____

Tool/Equipment Skill: _____

Preparation - Check all education or training you need to enter this occupation:

___ High School Diploma ___ GED ___ On-The-Job Training/Apprenticeship

___ Technical ___ University Other _____

Length and Location of preparation: _____

Wages - List the hourly wage and the annual expected income:

Per Hour: _____ Per Month: _____ Per Year: _____

Outlook (Will there be jobs available in this occupation in the future?)

of Jobs available: _____ In five years, 20____: _____ In ten years, 20____: _____

Major Employers and Job Locations - What type of companies will hire you and where will you live?

1. _____ 4. _____

2. _____ 5. _____

3. _____ 6. _____

EDUCATIONAL CAREER PLAN

Career Path: Arts & Communications

Career Cluster: Arts, A/V Technology & Communications

Career Major:

Date: _____

Student Name: _____

Student Signature: _____

Advisor Signature: _____

Parent/Guardian Signature (if required):

High School	9th Grade	10th Grade	11th Grade	12th Grade*
	English I	English II	English III	English IV
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Trigonometry or Statistics	Trigonometry or Statistics
	Physical Science or Biology I	Biology I or Chemistry I	Chemistry or Physics	Physics or Environmental Science
	Geography/State History	World History	American History	Economics/Government
	PE/Health or Fine Arts	PE/Health or Fine Arts		Personal Finance
				Practical Art (if needed)
	Career Major Elective(s) Career and Family Leadership Technology Education	Career Major Elective(s) Apparel Development I Drafting 1 Life Management	Career Major Coursework:	
	Additional Coursework Foreign Language or Computer Technology	Additional Coursework Foreign Language or Computer Technology	Apparel Development II Art Career Development/Entrepreneurship Commercial Art Electronic Desktop Publishing Graphic Communication	Graphic and Video Production Housing & Interiors I Housing & Interiors II Photography Stagecraft Telecommunications

Postsecondary	Area Career Center	Community College	College/University	Other
	<input type="checkbox"/> Commercial Art <input type="checkbox"/> Drafting <input type="checkbox"/> Electronic Desktop Publishing <input type="checkbox"/> Graphic Communication <input type="checkbox"/> TV/Radio Broadcasting <input type="checkbox"/> Telecommunications	<input type="checkbox"/> Desktop Publishing <input type="checkbox"/> Drafting <input type="checkbox"/> Graphic Design <input type="checkbox"/> Printing Technology <input type="checkbox"/> TV/Radio Broadcasting <input type="checkbox"/> Telecommunications	<input type="checkbox"/> Art History <input type="checkbox"/> Education <input type="checkbox"/> Electronic Engineering <input type="checkbox"/> Fashion Design <input type="checkbox"/> Journalism <input type="checkbox"/> Music <input type="checkbox"/> Stage Management	<input type="checkbox"/> Apprenticeship <input type="checkbox"/> Military <input type="checkbox"/> On-the-Job Training
Career Enhancement Options	Work-based Learning Opportunities	Relevant High School Intra-Curricular/Co-Curricular Experiences		Graduation Exams
	After School Employment Cooperative Occupational Experience Internship/Mentorship Job-Shadowing On-The-Job Training Service Learning	Career and Technical Student Organization: Family, Career and Community Leaders of America (FCCLA) Future Business Leaders of America (FBLA) SkillsUSA Technology Students of America (TSA) Other high school activities:		___ U.S. Constitution ___ MO Constitution

Adapted from National Career Cluster

** 12th grade year should include at least 3 academic courses including college prep math or science.

***These courses are part of the Project Lead The Way curriculum. More information is available at www.pltw.org.

Note: All Career and Technical Education courses count as a practical arts credit.

MLA Citation Style

This guide provides a basic introduction to the MLA citation style. It is based on the 6th edition of the [MLA Handbook for Writers of Research Papers](#) published by the Modern Language Association in 2003.

Copies are available at the Vanier Library Reference Desk, in the Webster Library Reference Collection and on 3-hour Reserve (Webster). The call number for the handbook is LB 2369 G53 2003.

The [MLA Handbook](#) is generally used for academic writing in the humanities. The handbook itself covers many aspects of research writing including selecting a topic, evaluating sources, taking notes, plagiarism, the mechanics of writing, the format of the research paper as well as the way to cite sources.

This guide provides basic explanations and examples for the most common types of citations used by students. For additional information and examples, refer to the [MLA Handbook](#).

Parenthetical references in the text

Parenthetical documentation allows you to acknowledge a source within your text by providing a reference to exactly where in that source you found the information. The reader can then follow up on the complete reference listed on the Works Cited page at the end of your paper.

- ◆ In most cases, providing the author's last name and a page number are sufficient:

In response to rapid metropolitan expansion, urban renewal projects sought “an order in which more significant kinds of conflict, more complex and intellectually stimulating kinds of disharmony, may take place” (Mumford 485).

- ◆ If there are two or three authors, include the last name of each:

(Winks and Kaiser 176)

(Choko, Bourassa and Baril 258-263)

- ◆ If there are more than three authors, include the last name of the first author followed by “et al.” without any intervening punctuation:

(Baldwin et al. 306)

- ◆ If the author is mentioned in the text, only the page reference needs to be inserted:

According to Postman, broadcast news influences the decision-making process (51-63).

Parenthetical documentation is not used for electronic or web documents if there is no pagination.

Further examples and explanations are available in Chapter 6 of the [MLA Handbook](#).

Works Cited

The alphabetical list of works cited that appears at the end of your paper contains more information about all of the sources you've cited allowing readers to refer to them, as needed. The main characteristics are:

- ◆ The list of Works Cited must be on a new page at the end of your text
- ◆ Entries are arranged alphabetically by the author's last name or by the title if there is no author
- ◆ Titles are underlined (not *italicized*) and all important words should be capitalized
- ◆ Entries are double-spaced (for the purposes of this handout, single-spacing is used)

Below are some examples of the most common types of sources including online sources (web and databases).

Book with one author

Mumford, Lewis. The Culture of Cities. New York: Harcourt, 1938.

Book with two or three authors

Francis, R. Douglas, Richard Jones, and Donald B. Smith. Destinies: Canadian History Since Confederation. Toronto: Harcourt, 2000.

Book with more than three authors

Baldwin, Richard et al. Economic Geography and Public Policy. Princeton: Princeton UP, 2003.

Two or more books by the same author

Replace the author's name by three hyphens and arrange alphabetically by the book's title

Postman, Neil. Amusing Ourselves to Death: Public Discourse in the Age of Show Business. New York: Viking, 1985.

---. The Disappearance of Childhood. New York: Vintage, 1994.

Anthology or compilation

Abate, Corinne S., ed. Privacy, Domesticity, and Women in Early Modern England. Burlington, VT: Ashgate, 2003.

Work in an anthology or an essay in a book

Naremore, James. "Hitchcock at the Margins of Noir." Alfred Hitchcock: Centenary Essays. Eds. Richard Allen and S. Ishii-Gonzalès. London: BFI, 1999.

Book by a corporate author

Associations, corporations, agencies and organizations are considered authors when there is no single author

Organisation for Economic Co-operation and Development. Action Against Climate Change: The Kyoto Protocol and Beyond. Paris: OECD, 1999.

Article in a reference book or an entry in an encyclopedia

If the article/entry is signed, include the author's name; if unsigned, begin with the title of the entry

Guignon, Charles B. "Existentialism." Routledge Encyclopedia of Philosophy. Ed. Edward Craig. 10 vols. London: Routledge, 1998.

A translation

Kafka, Franz. The Metamorphosis. Trans. and Ed. Stanley Corngold. New York: Bantam, 1972.

A government publication

Canada. Dept. of Foreign Affairs and International Trade. Freedom From Fear: Canada's Foreign Policy for Human Security. Ottawa: DFAIT, 2002.

United Nations. Dept. of Economic and Social Affairs. Population Division. Charting the Progress of Populations. New York: UN, 2000.

Book in a series

Bloom, Harold, ed. André Malraux. Modern Critical Views. New York: Chelsea House, 1988.

Article in a journal

Ferrer, Ada. "Cuba 1898: Rethinking Race, Nation, and Empire." Radical History Review 73 (1999): 22-49.

Man, Glenn K. S. "The Third Man: Pulp Fiction and Art Film." Literature Film Quarterly 21.3 (1993): 171-178.

Article in a newspaper or magazine

Semenak, Susan. "Feeling Right at Home: Government Residence Eschews Traditional Rules." Montreal Gazette 28 Dec. 1995, Final Ed.: A4.

Driedger, Sharon Doyle. "After Divorce." Maclean's 20 Apr. 1998: 38-43.

A review

Kirn, Walter. "The Wages of Righteousness." Rev. of Cloudsplitter, by Russell Banks. New York Times Book Review 22 Feb. 1998: 9.

Kauffmann, Stanley. "A New Spielberg." Rev of Schindler's List, dir. Steven Spielberg. New Republic 13 Dec. 1993: 30.

Television or radio program

"Scandal of the Century." Narr. Linden MacIntyre. The Fifth Estate. CBC Television. 23 Jan. 2002.

Sound recording

Ellington, Duke. "Black and Tan Fantasy." Music is My Mistress. Musicmasters, 1989.

Film, video recording or DVD

The Shining. Dir. Stanley Kubrick. Perf. Jack Nicholson, Shelley Duvall. Warner Bros., 1980.

Macbeth. Dir. Roman Polanski. Perf. Jon Finch, Francesca Annis, and Nicholas Selby. 1971. DVD. Columbia, 2002.

Musical composition, published score

Beethoven, Ludwig van. Symphony no. 4 in B-flat major, op. 60. Mineola, NY: Dover, 2001.

Work of art, photographed, in a book

Cassatt, Mary. Mother and Child. 1890. Wichita Art Museum, Wichita. American Painting: 15601913. By John Pearce. New York: McGraw, 1964. Slide 22.

• Article from a database

Provide the same information as you would for a printed journal article and add the name of the database, the platform of the database (if applicable), the access provider (Concordia University Libraries), the date of access and the general URL for the database

NOTE - If the article is in HTML only, pagination is not required. However, you can include the start page followed by a hyphen, a space and then a period. If a PDF version is available, provide pagination.

Brennan, Katherine Stern. "Culture in the Cities: Provincial Academies During the Early Years of Louis XIV's Reign." Canadian Journal of History 38.1 (2003): 19-42. CBCA Complete. ProQuest. Concordia University Libraries. 29 Mar. 2004 <<http://www.proquest.com>>.

Dussault, Marc and Bruce G. Barnett. "Peer-assisted Leadership: Reducing Educational Managers' Professional Isolation." Journal of Educational Administration 34.3 (1996): 5- . ABI/INFORM Global. ProQuest. Concordia University Libraries. 29 Mar. 2004 <<http://www.proquest.com>>.

Heming, Li, Paul Waley, and Phil Rees. "Reservoir Resettlement in China: Past Experience and the Three Gorges Dam." The Geographical Journal 167.3 (2001): 195-212. Academic Search Premier. EBSCOhost. Concordia University Libraries. 29 Mar. 2004 <<http://search.epnet.com>>.

• Web page

"Joyce Wieland." Celebrating Women's Achievements: Women Artists in Canada. 2000. National Library of Canada. 29 Mar. 2004. <<http://www.nlc-bnc.ca/women/h12-523-e.html>>.

• **Internet site**

Legends of our Times: Native Ranching and Rodeo Life on the Plains and Plateau. 22 Jan. 1999.
Canadian Museum of Civilization. 29 Mar. 2004.
<<http://www.civilisations.ca/aborig/rodeo/rodeo00e.html>>.

• **Article in online periodical**

Sehmy, Dalbir S. "Wrestling and Popular Culture." CCLWeb: Comparative Literature and Culture 4.1 (2002). 29 Mar. 2004 <<http://clwebjournal.lib.purdue.edu/clweb02-1/sehmy02.html>>.

Revised: March 2004



APA CRIB SHEET

Dr. Abel Scribe PhD - October 2006

The *APA Crib Sheet* is a concise guide to using the style of the American Psychological Association in writing research papers. It is based on the current fifth edition of the *APA Publication Manual*. The latest version is at www.docstyles.com. The *Crib Sheet* is routinely updated; it is the product of many contributors. This version was revised in Fall 2006 by Dr. Abel Scribe PhD. Doc Scribe is not affiliated in any way with the APA--this style sheet is free! Freeware Copyright 2006 by Dr. Abel Scribe PhD.

Crib Sheet Contents

General Style Notes

- Abbreviations
- Biased Language
- Capitalization
- Compound Words
- Emphasis (Italics-Quotes)
- Numbers & Statistics
- Punctuation & Lists
- Quotations
- Terminology

Page Formats

- Text Details
- Title & Text pages (graphic)
- Headings & Subheadings
- References & Tables (graphic)
- Tables (notes)

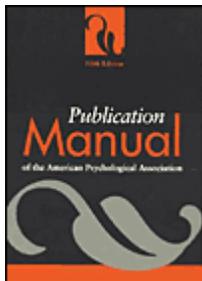
Research Documentation

- Text Citations
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- Reference Works
- Reports & Papers
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READ ME



APA style is the style of writing used by journals published by the American Psychological Association (APA). The style is documented in the *APA Publication Manual* (5th ed., 2001). The *APA Manual* began as an article published in *Psychological Bulletin* in 1929, the product of a 1928 conference of anthropologists and psychologists who gathered "to discuss the form of journal manuscripts and to write instructions for their preparation" (APA, 2001, p. xix). The APA first published the guidelines as a separate document called the *Publication Manual* in 1952. Today the manual is in its fifth edition, and *APA style* is widely recognized as a standard for scientific writing in psychology and education, used by over a thousand research journals.

APA Manual at Amazon.com: (Paperback \$26.95) (Spiral Bound \$33.95).

Some of the more common rules and reference sources in APA style are covered in the *APA Crib Sheet*. However, this document is no substitute for the 440 page *APA Manual*, which has evolved into a comprehensive style guide. The *APA Manual* should be purchased by any serious student preparing an article, theses, or dissertation in psychology or education. It answers question you may not think to ask. The *APA Crib Sheet* has no affiliation with the American Psychological Association. It began as a "community service" project by Professor Dewey, and has become the most widely consulted resource on APA style on the Internet.

The *APA Manual* draws a distinction between *final manuscripts* such as class papers, theses, and dissertations, and *copy manuscripts* to be submitted for review and publication. The *APA Crib Sheet* follows the instructions given in chapter six for "Material Other Than Journal Articles" (APA, 2001, pp. 321-330). Final manuscripts differ from copy manuscripts in these ways:

- *Spacing*. "Double-spacing is required throughout most of the manuscript. When single-spacing would improve readability, however, it is usually encouraged. Single spacing can be used for table titles and headings, figure captions, references (but double-spacing is required between references), footnotes, and long quotations" (APA, 2001, p. 326).
- *Figures, tables, and footnotes*. "In a manuscript submitted for publication, figures, tables, and footnotes are placed at the end of the manuscript; in theses and dissertations, such material is frequently incorporated at the appropriate point in text as a convenience to readers" (APA, 2001, p. 325).

The most notable **additions and changes** to fifth edition of the *APA Manual* (2001) include:

- *Electronic sources* require new formats in references. The formats previously featured on the APA Web site have been superseded. Several formats are included in the *Crib Sheet*.
- *Italics or underline?* "Use the functions of your word-processing program to create italic, bold, or other special fonts or styles following the style guidelines specified in this *Publication Manual*" (APA, 2001, p. 286).
- *Hanging indents*. "APA publishes references in a *hanging indent* format. . . . If a hanging indent is difficult to accomplish with your word-processing program, it is permissible to indent your references with paragraph indents" (APA, 2001, p. 299).

Acknowledgements are noted at the end of the Crib Sheet. The *APA Crib Sheet* can be freely distributed, but not sold! A good faith effort has been made to assure the accuracy of this document, both by the author and by the many people who have offered suggestions. The *APA Crib Sheet* has benefited greatly from their insight and expertise. The more comprehensive *Writer's Guide to APA Psychology* is available free at www.docstyles.com.

APA EDITORIAL STYLE (TEXT RULES)

These Style Notes cover details commonly encountered when drafting a research paper. These are also the details that knowledgeable readers are likely to note when you get them wrong. You may elect to apply your own best judgment on the more esoteric features, as long as you remember to be slavishly consistent throughout your paper.

Abbreviations

Use acronyms only for long, familiar terms (MMPI).

- Explain what an acronym means the first time it occurs: American Psychological Association (APA).
- If an abbreviation is commonly used as a word, it does not require explanation (IQ, LSD, REM, ESP).
- To form plurals of abbreviations, add s alone, without apostrophe (PhDs, IQs, vols., Eds).

Use periods when making an abbreviation within a reference (Vol. 3, p. 6, pp. 121-125, 2nd ed.)

- Use two-letter postal codes for U.S. state names (e.g., GA for Georgia) in references (write the state name out in text).
- Use the abbreviation **pp.** (plain text) in references to newspaper articles, chapters in edited volumes, and text citations only, *not* in references to articles in journals and magazines.
- Use **hr** for hour or hours, **min** for minutes, **s** for seconds, **m** for meter or meters (all in plain text, no period, no bold font).
- In using standard abbreviations for measurements, like m for meter, do not add an s to make it plural (100 seconds is 100 s).

Do not use Latin abbreviations in the text unless they are inside parentheses. An exception is made for et al. when citing a source. For example, "Smith et al. (2002) found monkeys measured higher in IQ tests than grad students." Instead, write out the equivalent word or phrase:

cf. [use **compare**] **etc.** [use **and so forth**] **viz.** [use **namely**]
e.g. [use **for example**] **i.e.** [use **that is**] **vs.** [use **versus**]

- Do not use the old abbreviations for subject, experimenter, and observer (S, E, O).
- Do not use periods within degree titles and organization titles (PhD, APA).
- Do not use periods within measurements (lb, ft, s) except inches (in.).

Avoiding Biased and Pejorative Language

In general, avoid anything that causes offense. The style manual makes the following suggestions:

DO NOT use . . .	When you can use . . .
ethnic labels (e.g., Hispanic) "men" (referring to all adults) "homosexuals" "depressives"	geographical labels (e.g., Mexican Americans if from Mexico) "men and women" "gay men and lesbians" "people with depression"

Correct Use of the Terms "Gender" and "Sex"

- The term "gender" refers to culture and should be used when referring to men and women as social groups, as in this example from the *Publication Manual*: "sexual orientation rather than gender accounted for most of the variance in the results; most gay men and lesbians were for it, most heterosexual men and women were against it" (APA, 2001, p. 63).
- The term "sex" refers to biology and should be used when biological distinctions are emphasized, for example, "sex differences in hormone production."
- Avoid gender stereotypes. For example, the manual suggests replacing "An American boy's infatuation with football" with "An American child's infatuation with football" (see APA, 2001, p. 66).

Sensitivity to Labels

Be sensitive to labels. A person in a clinical study should be called a "patient," not a "case." Avoid equating people with their conditions, for example, do not say "schizophrenics," say "people diagnosed with schizophrenia." Use the term "sexual orientation," not "sexual preference." The phrase "gay men and lesbians" is currently preferred to the term "homosexuals." To refer to all people who are not heterosexual, the manual suggests "lesbians, gay men, and bisexual women and men" (APA, 2001, p. 67).

Ethnic labels can be tricky, and the manual has a lot to say about them. For example, "American Indian" and "Native American" are both acceptable usages, but the manual notes that there are nearly 450 Native American groups, including Hawaiians and Samoans, so specific group names are far more informative, such as *Hopi* or *Lakota*.

- Capitalize *Black* and *White* when the words are used as proper nouns to refer to social groups. Do not use color words for other ethnic groups. In racial references, the manual simply recommends that we respect current usage. Currently both the terms "Black" and "African American" are widely accepted, while "Negro" and "Afro-American" are not. These things change, so use common sense.
- The terms *Hispanic*, *Latino*, and *Chicano* are preferred by different groups. The safest procedure is use geographical references. Just say "Cuban American" if referring to people from Cuba.
- The term *Asian American* is preferable to *Oriental*, and again the manual recommends being specific about country of origin, when this is known (for example, Chinese or Vietnamese). The manual specifies that hyphens should not be used in multiword names such as Asian American or African American.
- People from northern Canada, Alaska, eastern Siberia, and Greenland often (but not always!) prefer *Inuk* (singular) and *Inuit* (plural) to "Eskimo." But some Alaska natives are non-Inuit people who prefer to be called Eskimo. This type of difficulty is avoided by using geographical references. For example, in place of "Eskimo" or "Inuit" one could use "indigenous people from northern Canada, Alaska, eastern Siberia, and Greenland."
- In referring to age, be specific about age ranges; avoid open-ended definitions like "under 16" or "over 65." Avoid the term *elderly*. *Older person* is preferred. *Boy* and *Girl* are acceptable referring to high school and younger. For persons 18 and older use *men* and *women*.

In general, call people what they want to be called, and do not contrast one group of people with another group called "normal." Write "we compared people with autism to people without autism" not "we contrasted autistics to normals." Do not use pejorative terms like "stroke victim" or "stroke sufferers." Use a more neutral terminology such as "people who have had a stroke." Avoid the terms "challenged" and "special" unless the population referred to prefers this terminology (for example, Special Olympics). As a rule, use the phrase "people with _____" (for example, "people with AIDS," not "AIDS sufferers").

Capitalization

- Capitalize formal names of tests (Stroop Color-Word Interference Test).
- Capitalize major words and all other words of four letters or more, in headings, titles, and subtitles outside reference lists, for example, "A Study of No-Win Strategies."
- Capitalize names of conditions, groups, effects, and variables only when definite and specific. (Group A was the control group; an Age x Weight interaction showed lower weight with age.)
- Capitalize the first word after a comma or colon if, and only if, it begins a complete sentence. For example, "This is a complete sentence, so it is capitalized." As a counter example, "no capitalization here."
- Capitalize specific course and department titles (GSU Department of Psychology, Psych 150).
- Do not capitalize generic names of tests (Stroop color test). "Stroop" is a name, so it remains capitalized.
- Capitalize nouns before numbers, but not before variables (Trial 2, trial x).
- Do not capitalize names of laws, theories, and hypotheses (the law of effect).
- Do not capitalize when referring to generalities (any department, any introductory course).

Commas

- Do not use commas to separate parts of measurement (9 lbs 5 oz). Use the metric system, as a rule.
- Use commas before "and" in lists, for example, height, width, and depth.
- Use commas between groups of three digits, for example, 1,453.
- Use commas to set off a reference in a parenthetical comment (Patrick, 1993).
- Use commas for seriation within a paragraph or sentence. For example, "three choices are (a) true, (b) false, and (c) don't know." Use semicolons for seriation if there are commas within the items. For example, (a) here, in the middle of the item, there are commas; (b) here there are not; (c) so we use semicolons throughout.
- Use commas in exact dates, for example, April 18, 1992 (but not in April 1992).

Compound Words

Compound words are two or more words that work together in a specified order. This order cannot be reversed or rearranged without destroying the compound word's meaning. A dictionary is the best guide to spelling and usage. If it is not in the dictionary it is not likely a hyphenated compound, but check the following rules for possible exceptions. If it is in the dictionary, use the first spelling given.

"With frequent use, open or hyphenated compounds tend to become closed (*on line* to *on-line* to *online*). Chicago's general adherence to Webster does not preclude occasional exceptions when the closed spellings have become widely accepted, pronunciation and readability are not at stake, and keystrokes can be saved" (CMS, 2003, p. 300).

General Rules

Full-time compound words are hyphenated whatever their role in a sentence—as an adjective or a noun. "The court-martial hearing is set for 1000 hours. The hearing will determine whether a court-martial is warranted." *Court-martial* is a full-time compound word (as is "full-time"). This information is given in a dictionary.

Conditional compounds are hyphenated as **adjectives**, but not when used as nouns.

1. *Adjectival compound*. "The counselor suggested a *role-playing* technique to reduce the stress of encounters, but cautioned that *role playing* alone would not solve the problem." *Role-playing* is a compound adjective, but not a compound noun.
2. *Add a hyphen* to any prefix attached to a proper noun, capitalized abbreviation, or number. For example, the *post-Freudian* era, the *pre-1960s* civil rights movement, the many *non-ASA* journals in sociology.
3. *Fractions*. "When . . . a fraction is considered a single quantity, it is hyphenated [whether it is used as a noun or as an adjective]" (CMS, 2003, p. 383). *One-fourth* the audience was comprised of former refugees. A *two-thirds* majority was required to pass the initiative.
4. *Made-up compound*. A compound may be of the *made-up-for-the-occasion* variety: "The *up-to-date* figures were unadjusted." But when these terms are used in the predicate they are not hyphenated: The compound word was *made up for the occasion*. "The unadjusted figures were *up to date*."
5. *Serial compounds*. When two or more compound modifiers have a common base, this base is sometimes omitted in all but the last modifier, but the hyphens are retained. Long- and short-term memory, 2-, 3-, and 10-minute trials.
6. *Do not hyphenate* a compound term using an adverb ending in *-ly*. "The widely used term was not yet in the dictionary. Such clearly understood terms are eventually documented if they endure."

 **Avoid confusion!** A *re-creation* is not the same as *recreation*. Does "the fast sailing ship" refer to a ship that was designed for speed, or one that is making an unusually fast passage? If the former, then it is a *fast* sailing ship. If it is the latter, then it is a *fast-sailing* ship (CMS, 1993, p. 203).

Prefixes

Through long usage most common prefixes do not require a hyphen: *aftereffect*, *antifreeze*, *cofounder*, *Internet*, *microwave*, *oversight*, *preempt*, *reexamine*, *supermarket*, *unbiased*, *underground*. There are many exceptions. When in doubt check a dictionary. Note the following exceptions:

1. *Same two letters*. If the prefix puts the same two letters together, a hyphen is sometimes inserted. For example, write: anti-industrial, co-op, non-native, post-trial. But also write: cooperative, coordinate, nonnegotiable, overrate, overreach, overrule, reelect, unnamed.
2. *Superlatives-diminutives*. Some prefixes, best-, better-, ill-, lesser-, little-, well-, are hyphenated when they precede the noun they modify, but are not hyphenated when preceded by a modifier, or when used as a predicate adjective. The ill-advised attack failed, the strategy was ill advised.
3. *Weird terms*. If the prefix creates an unfamiliar or weird term, a hyphen may improve clarity. The *Turabian Guide* offers these examples: *pro-ally*, *anti-college* instead of *proally*, *anticollege* (1976, p. 101).

The following prefixes *always* require a hyphen.

Prefix	Example	Prefix	Example	Prefix	Example
all-	all-powerful leader	great-	great-grandfather	self-	self-reliant person
ever-	ever-faithful friend	half-	half-baked plan	still-	still-active volcano
ex-	ex-president	much-	much-loved pastor		

Emphasis: Italics or Quotation Marks?

Italicize or underline the titles of books, species names, novel or technical terms and labels (the first time only), words and phrases used as linguistic examples, letters used as statistical symbols, and the volume numbers in references to journal articles.

- Add emphasis to a word or short phrase by putting it in italics (the first time only). Use this sparingly!
- Add emphasis to a word or phrase in a quotation with italics, *followed by the note* [italics added] in brackets.
- Note a word used as a word, or a foreign term, with italics, for example, *hutte* means *hut* in German.
- Introduce a keyword or technical term (the *neoquasipsychoanalytic* theory), or identify endpoints on a scale (*poor* to *excellent*) with italics.
- Do not italicize foreign words that have entered common usage (et al., a priori, laissez-faire, arroyo).

Use quotation marks for:

- odd or ironic usage the first time--the "outrageous" use of social security funds to finance the deficit.

- When enumerating a series of topics or subjects: (a) introduce each topic with a letter in parentheses, (b) following a colon, to (c) emphasize their distinctiveness. This is called enumeration or seriation.
- When listing separate paragraphs in a series, use a number and a period, not parentheses and letters.
 1. The first paragraph goes here.
 2. The second paragraph goes here.

Space once after all punctuation, including:

- after commas, colons, and semicolons;
- after punctuation marks at the ends of sentences;
- after periods that separate parts of a reference citation
- after periods of the initials in personal names (e.g., J. R. Zhang).

Do not space after internal periods in abbreviations (e.g., a.m., i.e., U.S.) or around colons in ratios (APA 2001, 291).

 **No bullets?** The APA *Publication Manual* makes no mention of using bullets in research papers. There are no examples of the use of bullets in recent publications. “Bullets (heavy dots . . .) make good visual signposts in unnumbered lists but can lose their force if used too frequently” (CMS, 2003, p. 272).

Quotations

Quotations must be placed in quotes or indented as a block quote. All quotations must include a citation referring the reader to the source document. As a matter of form quotations should be integrated into the flow of your text, and may be edited to do so.

- Reproduce a quote exactly. If there are errors, introduce the word *sic* italicized and bracketed—for example, “the speaker stttutred [*sic*] terribly”—immediately after the error to indicate it was in the original.
- When the author is introduced in the text the page number follows the quotation, but the date follows the author’s name. Smith (1999) reported that “the creature walked like a duck and quacked like a duck” (p. 23). The abbreviation “p.” for page (“pp.” for pages) is lower cased.
- Without an introductory phrase, the author, date, and page are placed together. For example, It was reported that “the creature walked like a duck and quacked like a duck” (Smith, 1999, p. 23).
- If a quote begins in what is mid-sentence in the original, the first word may be uppercased to open a sentence. “Quotations should be integrated into the flow of your text.” Do not write “[Q]uotations should be. . . .” Conversely, a uppercased word should be lowercased “as a matter of form” without indicating the change.
- Expand or clarify words or meanings in a quotation by placing the added material in quotes. For example, “They [the Irish Republican Army] initiated a cease-fire.”
- Use three dots with a space before, between, and after each (ellipsis points) when omitting material, four if the omitted material includes the end of a sentence (with no space before the first). Do not use dots at the beginning or end of a quotation unless it is important to indicate the quotation begins or ends in mid-sentence.
- “The punctuation mark at the end of a sentence [in a quotation] may be changed to fit the syntax [without indicating the change in the text]” (APA, 2001, p. 119).
- Double quotation marks may be changed to single quotes, and the reverse, without indicating the change.
- Add emphasis in a quotation with italics, *followed by the note* [italics added] in brackets.

Block Quotes

For quotations over 40 words in length, indent and single space the whole block (double space in papers for review or publication). Indent the first line five spaces (one-half inch, 1.25 cm) if there are paragraphs within the long quotation after the first. Add the citation *after* the final punctuation in a block quote.

 Block quotes may be single spaced in research papers, but must be double spaced in copy manuscripts submitted for publication or review (see APA, 2001, p. 326).

Terminology

Despite dictionary advice to the contrary, APA style insists that *data* is the plural form of *datum*. Preferred forms of words are (see APA, 2001, p. 89):

appendix (<i>appendixes not</i> appendices)	phenomenon (<i>phenomena</i> is plural)
datum (<i>data</i> is plural only!)	schema (<i>schemas</i> is plural)
matrix (<i>matrices not</i> matrixes)	

Internet terms are in a state of transition. Whatever form you use, be consistent!

- **e-mail** The *hyphenated form is found in the AMA, APA, CMS, and MLA style manuals!* The *e* is never uppercased except at the beginning of a sentence.
- **Internet [Net]** Internet is a proper noun.
- **electronic mailing list [listserv]** The APA manual notes that *Listserv* is a trademarked name for an *electronic mailing list* (the term it prefers instead).

- **Since** is used in its temporal sense: "Since 11:00 AM all air traffic was shut down." That is, the term introduces events after a specific point in time. Use *since* to mean "after that" not "because" (2001, p. 57).
- **Web** This is a proper noun. When *Web* is used in an open compound term (or with a hyphen when used as an adjective), as in *Web page*, *Web* is uppercased. When the compound term is closed, *Web* is spelled lowercased, as in *webmaster*.
- **Web based [Web-based]** This term was found in the APA manual, spelled open as a noun. It was found in *Wired Style* spelled with a hyphen used as an adjective (1999, p. 173).
- **Web page [Web page]** This term is spelled open. When a compound term is spelled open (without a hyphen), or as a compound adjective (with a hyphen), as in *Web page*, *Web-page design*, then *Web* is uppercased.
- **Web site [Web site]** This term is spelled open.
- **webmaster, web.** . . . Most Web terms (except *Web ring*) are spelled lowercased and closed (without a hyphen): *webcam*, *webcast*, *webhead*, *webmail*, *webzine*, etc. (then again, there's also *WebTV*). But some of these terms should probably be spelled open in formal writing—*Web cam*, *Web cast*, *Web mail*, *Web TV*.
- **While** is used in its precise temporal sense. For example, "While Tom is a good fellow, he's not all that bright" makes sense in everyday conversation. *While* in this context means "even though." But in the temporal sense, the example reads, "*During the time* (While) Tom is a good fellow, he's not all that bright." This makes no sense. Write instead, "*Whereas* or *Although* Tom is a good fellow, he's not all that bright."

PAGE FORMATS

The **APA Manual** notes that "the size of the type should be one of the standard typewriter sizes (pica or elite) or, if produced from a word processing program, 12 points" (2001, p. 285).

 The body of the paper should be in a *serif typeface* (like Courier or Times Roman) with lettering on figures in a sans serif typeface (such as Helvetica or Arial).

<p>Centered Title in the Style of the <i>American Psychologist</i></p> <p>Abstract</p> <p><i>An abstract is not too common a feature in a student paper, but required when submitting any paper for publication in an APA journal. This is a good feature for students, especially for graduate students, to emulate in their work. An abstract is a brief concise description of the research--what you were looking for, why, how you went about it, and what you found. It is limited to 120 words in APA style. Absent an abstract, proportion the title and author block on the page. Note the use of italics.</i></p> <p>Author M. Lastname University Affiliation Professor/Class Date</p> <p style="text-align: center;">1</p>	<p>Short Title Header 2</p> <p>Centered Title in the Style of the <i>American Psychologist</i></p> <p>Psychology papers should not begin with the heading <i>Introduction</i>. All papers begin with an "introduction."</p> <p>Level A Heading</p> <p>Double space the text. Credit the works of others, as well as direct quotes, to their authors. Multiple citations go alphabetically (Alt, 2001; Baca, 1999; Car 2004).¹</p> <p>Level B Heading: <i>Block Quotes</i></p> <p>Quotes of 40 words or longer are indented and single-spaced. These <i>block quotes</i> are usually introduced with a colon. For example, Thoreau (1854/1960) argued that:</p> <p style="padding-left: 40px;">The mass of men lead lives of quiet desperation. What is called resignation is confirmed desperation. From the desperate city you go to the desperate country, and have to console yourself with the bravery of minks and muskrats. . . . But it is a characteristic of wisdom not to do desperate things. (p. 10)</p> <p><i>Run-in paragraph heading.</i> Use sentence caps, in italics, ending with a period or other punctuation.</p> <p>¹Footnotes go <i>inside</i> the margins!</p>
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Text Details

- Abstracts are limited to 120 words (APA, 2001, p. 13).
- Double space the text, but *single space* within block quotes, references, and the abstract. This is suggested in chapter 6 of the *APA Manual*, "Material Other than Journal Articles" (see "Read Me" at the beginning of the *Crib Sheet*).
- Footnotes are rarely used in APA papers, except for author affiliation and contact information--the *author note*. If you need to add an explanatory note make it an endnote.
- Hyphenation should not occur at the end of lines, only between words when necessary. Right justifying a paper can introduce ambiguities with uncertain hyphenation, a *ragged right* margin is preferred in research writing.
- Indent paragraphs, block quotes, and hanging indents one-half inch (1.25 cm or five to seven spaces).
- Keyword emphasis requires the use of italics, but only the first time a term is used. If the intent is to indicate odd or ironic usage, use quotation marks.
- Margins should be at least 1" all around (about 2.5 cm).
- Page numbers are required on every page: Number pages consecutively.
- The page header summarizes the title in a few words. The header and page number go inside the margin space, double spaced above the text, next to the right margin, except on the title page.
- Word processor features—such as bold and italic fonts and hanging indents—should be used as appropriate.

Headings?

APA headings follow a complex hierarchy, with provision for up to five levels. These come, in descending order, as levels 5, 1, 2, 3, 4. But if up to three levels of headings are required, use levels 1, 3, and 4, in that order. If four levels are required, insert level 2 between levels 1 and 3. If five levels are required, start with level five and work down in order (5, 1, 2, 3, 4). Confused? Most papers will need no more than three levels. To avoid confusion these are labeled A, B, and C (APA levels 1, 3, and 4 respectively) (see APA, 2001, pp. 114–115).

Level A Heading Centered and Set in Heading Caps

Level B Heading: At Left Margin, Italicized, in Heading Caps

Level C heading: Indented, italicized, sentence caps. These paragraph or run-in headings end with a period (or other punctuation); are not complete sentences.

Use headings in the order presented. Level A and B headings do not end with punctuation except to add emphasis with an exclamation point or question mark. Do not begin a paper with the heading *Introduction*, this is understood.

Line Spacing?

 "Double-spacing is required throughout most of the manuscript. When single-spacing would improve readability, however, it is usually encouraged. Single spacing can be used for table titles and headings, figure captions, references (but double-spacing is required between references), footnotes, and long quotations" (APA, 2001, p. 326). This directive applies only to research papers presented as *final manuscripts*. See "Read Me."

References & Tables

Table Notes

Number tables consecutively as they appear in your text. Use only whole numbers, no 5a, 5b, etc. See recent issues of the *American Psychologist* or other APA journals for more complex table layouts. "Tables are efficient, enabling the researcher to present a large amount of data in a small amount of space" (APA, 2001, p. 147).

- Place tables close to where they are first mentioned in your text, but do not split a table across pages. (Tables in papers submitted for review or publication are placed on separate pages at the end of the paper.)
- Label each table beginning with the table number followed by a description of the contents in italics.
- Horizontal rules (lines) should be typed into tables; do not draw them in by hand.
- Each row and column must have a heading. Abbreviations and symbols (e.g., "%" or "nos.") may be used in headings.
- Do not change the number of decimal places or units of measurement within a column. "Use a zero before the decimal point when numbers are less than one" (APA, 2001, p. 128). Write "0.23" not ".23" *unless* the number is a statistic that cannot be larger than one, for example a correlation $r = .55$, or a probability $p < .01$.
- Add notes to explain the table. These may be general notes, footnotes, or probability notes.
- General notes follow the word *Note:* (*in italics*) and are used to explain general information about the table, such as the source.
- Footnotes are labeled "a, b, c, etc." and set in superscript. They explain specific details.

- Probability notes are indicated by asterisks and other symbols to indicate statistical significance. This is explained in the probability note at the bottom of the table. "Assign a given alpha level the same number of asterisks from table to table within your paper, such as **p* < .05 and ***p* < .01; the larger [greater] probability receives the fewest asterisks [the smaller or lesser probability gets more asterisks]" (APA, 2001, p. 170).
- You may both single space and double space within a table to achieve clarity. Tables in papers submitted for review or publication (only!) must be double spaced throughout.

<p style="text-align: center;">Short Title Header 10</p> <p style="text-align: center;">References</p> <p>Allport, G. W. (1979). <i>The nature of prejudice</i>. Cambridge, MA: Addison-Wesley. (Original work published 1954)</p> <p>Berry, D. S., & Pennebaker, J. W. (1993). Nonverbal and verbal emotional expression and health. <i>Psychotherapy and Psychosomatics</i>, 59, 11–19.</p> <p>Booth, W. C., Colomb, G. G., & Williams, J. M. (1995). <i>The craft of research</i>. Chicago: University of Chicago Press.</p> <p>Goleman, D. (1991, October 24). Battle of insurers vs. therapists: Cost control pitted against proper care. <i>New York Times</i>, pp. D1, D9.</p> <p>Morse, S. S. (1995). Factors in the emergence of infectious diseases. <i>Emerging Infectious Diseases</i>, 1(1). Retrieved October 10, 1998, from http://www.cdc.gov/ncidod/EID/eid.htm</p> <p>Stephan, W. G. (1985). Intergroup relations. In G. Lindzey & E. Aronson (Eds.), <i>The handbook of social psychology</i> (3rd ed., Vol. 2, pp. 599–658). New York: Random House.</p> <p>Wilson, E. O. (1998, March). Back from chaos. <i>Atlantic Monthly</i>, 281, 41–62</p>	<p style="text-align: center;">Short Title Header 8</p> <p>Place tables and figures in the text close to where they are first discussed. In manuscripts for publication they come at the end of the paper on separate pages.</p> <p>Table 1</p> <p style="text-align: center;"><i>Homicides by Race of Victim: United States 1993</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Race</th> <th style="text-align: right;">Population^a</th> <th style="text-align: right;">Homicides</th> <th style="text-align: right;">Rate^b</th> </tr> </thead> <tbody> <tr> <td>Black^c</td> <td style="text-align: right;">29,986</td> <td style="text-align: right;">12,114</td> <td style="text-align: right;">40.5*</td> </tr> <tr> <td>White</td> <td style="text-align: right;">199,686</td> <td style="text-align: right;">12,153</td> <td style="text-align: right;">6.1</td> </tr> <tr> <td>Other</td> <td style="text-align: right;">19,038</td> <td style="text-align: right;">635</td> <td style="text-align: right;">3.3**</td> </tr> <tr> <td>Total^d</td> <td style="text-align: right;">248,710</td> <td style="text-align: right;">24,932</td> <td style="text-align: right;">10.0</td> </tr> </tbody> </table> <p><i>Note:</i> Data developed from the <i>Statistical Abstract of the United States: 1993</i>. ^aPopulation in 1000s. ^bRate per 100,000 persons in the population. ^cThe rate for Black males was 69.2, for White males 9.0. ^dAbout one-half the "Other" category was comprised of Asian Americans and Native Americans. *<i>p</i> < .05, two-tailed test. **<i>p</i> < .01, two-tailed test.</p> <p>There are three kinds of notes that may be added to a table: general notes (indicated by the word <i>Note</i> in italics), specific notes (noted with superscript letters), and probability notes. Readers rarely study tables--think small, concise, focused.</p>	Race	Population ^a	Homicides	Rate ^b	Black ^c	29,986	12,114	40.5*	White	199,686	12,153	6.1	Other	19,038	635	3.3**	Total ^d	248,710	24,932	10.0
Race	Population ^a	Homicides	Rate ^b																		
Black ^c	29,986	12,114	40.5*																		
White	199,686	12,153	6.1																		
Other	19,038	635	3.3**																		
Total ^d	248,710	24,932	10.0																		

RESEARCH DOCUMENTATION

Text Citations Use the author-date format to cite references in text. For example: as Smith (1990) points out, a recent study (Smith, 1990) shows. . . . Every source cited in your text--and only those sources cited in your text--are referenced in the reference list.

Source	Citation	Source	Citation
No Author	(<i>Short Title</i> , 2004) (" <i>Short Title</i> ," 2004)	Chapter	(APA, 2001, chap. 6)
1 Author	(Smith, 2005) (Smith, 2005, p. 123)	Data File	(Corporate Author, 2002)
2 Authors	(Smith & Jones, 2004, pp. 123-126)	In Press	(Adams, in press)
3/5 Authors	(Smith, Jones, and Garcia, 2003) Next Cite: (Smith et al., 2003, p. 123)	Message/E-Mail	(A. B. Smith, personal communication, January 1, 2004)
6 Authors+	(Smith et al., 2002, pp. 123-456)	Multiple	(Adam, 2003; Baca, 2004; Burton, 2002)
Corporate Acronym	(United Nations [UN], 1999) Next Cite: (UN, 1999, p. 123)	No Date Reprint	(Smith, n.d.) (Freud, 1920/2002)

- Citations with three to five authors list all authors in the first citation; the lead author *et al.* (and others) in subsequent citations: first, (Smith, Jones, Andrews, Baker, & Charles, 2001); next, (Smith et al., 2001).
- Citations with six or more authors list the lead author *et al.* in all citations.

- The first time "et al." is used in a citation the year is included. If the citation is repeated in the same paragraph, the year may be omitted. For example (Smith et al., 2002, p. 22), then (Smith et al., p. 23).
- Join the last name in a multiple-author citation with *and* (in text) or an ampersand (&) in reference lists and parenthetical citations. For example: As Smith and Sarason (1990) point out, the same argument was made in an earlier study (Smith & Sarason, 1990).
- If a group is readily identified by an acronym, spell it out only the first time. For example, "As reported in a government study (National Institute of Mental Health [NIMH], 1991) . . ." The next citation gives just the initials and year, (NIMH, 1991).
- If the author is unknown or unspecified, use the first few words of the reference list entry (usually the title), for example: ("Study Finds," 1992). Remember to use *heading caps* in the text when noting a title; always use *sentence caps* in references!
- Reprints cite the original publication date and reprint date if both are known, for example: (James, 1890/1983). Translations of classics note the date of the translation: (Aristotle, trans. 1931).
- For e-mail and other "unrecoverable data" use personal communication, for example: (C. G. Jung, personal communication, September 28, 1933). These do not appear in the reference list.
- Always cite page numbers after quotations. For example, the author stated, "The effect disappeared within minutes" (Lopez, 1993, p. 311). Or, Lopez (1993) found that "the effect disappeared within minutes" (p. 311).
- If there are two or more citations that shorten to the same lead author and date, give as many additional names as needed to identify them, e.g., (Smith, Jones, et al., 1991) and (Smith, Burke, et al., 1991).
- When citing multiple works by the same author, arrange dates in order. In general, use letters after years to distinguish multiple publications by the same author in the same year, e.g., (Johnson, 1988, 1990a, 1990b).

Reference Lists

List references alphabetically by author. When there are multiple works by the same author, list references by date, the most recent *last*.

1. Use prefixes if they are commonly a part of the surname (e.g., *de Chardin* comes before *Decker*, *MacGill* comes before *McGill*. But do not use *von* (e.g., write: Helmholtz, H. L. F. von).
2. Disregard apostrophes, spaces, and capitals in alphabetizing; *D'Arcy* comes after *Daagwood*, *Decker* comes after *de Chardin*. Single-author citations precede multiple-author citations (Zev, 1990 then Zev et al., 1990).
3. Alphabetize corporate authors by first significant word. Do not use abbreviations in corporate names.

Abbreviations

 Use the abbreviation p. (pp.) before page numbers in encyclopedia entries, multi-page newspaper articles, chapters or articles in edited books, but **not** in journal or magazine article citations, where numbers alone are used. The following abbreviations are commonly used in APA references:

chap. chapter	No. number	Pt. part	Trans. translator
ed. edition [Rev. ed. revised]	p. (pp.) page (pages)	Suppl. supplement	Vol. volume (as in Vol. X)
Ed. (Eds.) editor(s)	para. paragraph	Tech. Rep. technical report	vols. volumes (as in xx vols.)

Basic Rules

1. *Authors & editors.* List up to six authors to a work, if more than six add et al. Invert all authors' names, using first & middle initials. With two or more authors place an ampersand & < before the final name. Note, unless they are serving in place of authors in a reference, editors' names go in their normal order (First. M. Last).
2. *Character Spacing.* Space once after all punctuation except inside abbreviations, ratios, and URLs where no space is required (APA, 2001, pp. 290–291). Space once after the periods in references and initials.
3. *City, State.* Include the country or state except with the following cities: Baltimore, Boston, Chicago, Los Angeles, New York, Philadelphia, San Francisco, Amsterdam, Jerusalem, London, Milan, Moscow, Paris, Rome, Stockholm, Tokyo, and Vienna (APA, 2001, p. 217). Use postal abbreviations for states, provinces.
4. *Date.* Use the month-day-year format for full dates, but see the sample references for newspapers.
5. *E-documents.* When quoting electronic documents without page numbers, cite paragraph numbers if given, after the paragraph symbol or abbreviation *para.* (e.g., Smith, 2000, ¶ 17). If there are no paragraph numbers, cite the nearest preceding section heading and count paragraphs from there (e.g., Smith, 2000, Method section, para. 4).
6. *E-mail* and other "unrecoverable data" are cited as a personal communication, for example: (A. B. Carter, personal communication, April 1, 2005). These do not appear in the reference list.
7. *Titles of Works.* All titles require sentence caps (all words lowercase except for the first word, first word after a colon, and proper nouns). Article titles are not placed in quotes in references (they are when mentioned in the text). Italicize titles of books, reports, working and conference papers, dissertations, and similar documents.

Sample References

Anonymous or Unknown Author:

Annual smoking attributable mortality, years of potential life lost and economic costs: United States 1995-1999. (2002). *Morbidity and Mortality Weekly Report*, 51, 300-303.

Citation: ("Annual Smoking," 2002). Use heading caps when citing titles in text citations.

Articles in Research Journals:

Abelson, R. P. (1997). On the surprising longevity of flogged horses: Why there is a case for the significance test. *Psychological Science*, 8, 12-15.

Citation: (Abelson, 1997). APA style places the volume (but not the issue number in a volume) in italics with the name of the journal.

Two to three authors:

McGlynn, E. A., & Brook, R. H. (2001). Keeping quality on the policy agenda. *Health Affairs (Millwood)*, 20(3), 82-90.

Citation: (McGlynn & Brook, 2001).

Three to five authors:

Miller, F. G., Emanuel, E. J., Rosenstein, D. L., & Straus, S. E. (2004). Ethical issues concerning research in complementary and alternative medicine. *JAMA*, 291, 599-604.

First Citation: (Miller, Emanuel, Rosenstein, & Straus, 2004); next citations: (Miller et al., 2004).

Six authors:

Mokdad, A. H., Bowman, B. A., Ford, E. S., Vinicor, F., Marks, J. S., & Koplan, J. P. (2001). The continuing epidemics of obesity and diabetes in the US. *JAMA*, 286, 1195-1200.

All citations: (Mokdad et al., 2001).

More than six authors:

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State Abbreviations Used in References

AL Alabama	GA Georgia	MD Maryland	NM New Mexico	SD South Dakota
AK Alaska	GU Guam	MA Massachusetts	NY New York	TN Tennessee
AS American Samoa	HI Hawaii	MI Michigan	NC North Carolina	TX Texas
AZ Arizona	ID Idaho	MN Minnesota	ND North Dakota	UT Utah
AR Arkansas	IL Illinois	MS Mississippi	OH Ohio	VT Vermont
CA California	IN Indiana	MO Missouri	OK Oklahoma	VA Virginia
CO Colorado	IA Iowa	MT Montana	OR Oregon	VI Virgin Islands
CT Connecticut	KS Kansas	NE Nebraska	PA Pennsylvania	WA Washington
DE Delaware	KY Kentucky	NV Nevada	PR Puerto Rico	WV West Virginia
DC Dist. Columbia	LA Louisiana	NH New Hampshire	RI Rhode Island	WI Wisconsin
FL Florida	ME Maine	NJ New Jersey	SC South Carolina	WY Wyoming

Acknowledgements

The **APA Crib Sheet** is built upon the venerable APA Crib Sheet by Professor Dewey (see below). The Crib Sheet was brought up to date with the current APA *Publication Manual* (5th ed.; 2001) by Doc Scribe in 2004. The sections on compound words, quotations, terminology, page format, statistics, text citations, and references have been added, revised, or expanded by Doc Scribe.

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