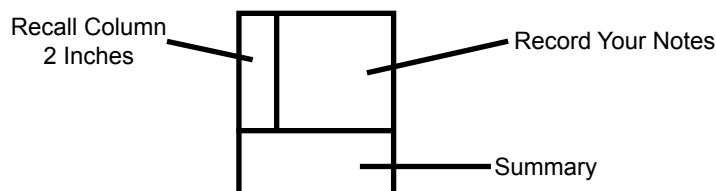# Cornell and Prepared Notes Methods

Note-taking involves more than just writing down what your professor says in class. It is a process that involves your active involvement and concentration before, during, and after class.

Recall Column 2 Inches — Record Your Notes — Summary

Before Class: Get prepared.
- Complete any reading or written assignments.
- Print and read instructor-provided lecture notes. Write down any questions you want answered by the lecture.
- If using the Cornell note-taking method, section your paper as this example shows. (The following pages describe the Cornell method.)

During Class: Use good listening and note-taking techniques.
- Sit as close to the front as possible. Arrive early to get a good seat.
- Listen for signal words, and watch for cues from the instructor for important information.
- Concentrate on the lecture; ask questions when necessary.
- Record notes from the lecture in the right-hand column of your paper.
- When using prepared notes, underline, add examples, mark and/or write questions for confusing concepts. Refer to the "using prepared notes" example on the following pages.
- Use chapter notes to assist with note-taking if applicable.

After Class: This is where deep learning begins—the kind of learning you need in order to do well on exams.
- Review and condense your notes within 24 hours. With the Cornell method, you can use the recall column to pull out key words, phrases, or concepts. Or predict possible test questions and write them in this space.
- Recite aloud the answers or information triggered by the key terms, questions, or statements you have written in the recall column.
- With either method, create a **written summary** of your notes. Two or three sentences capturing the key concepts for each lecture or section of prepared notes will often suffice. Frequently review and recite the information, either orally or through the creation of an additional study guide.

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CORNELL NOTE-TAKING METHOD

One method of note-taking that is commonly taught to university students is the Cornell method of note-taking, developed by Dr. Walter Pauk, a Cornell University professor. The Cornell method is an effective means for reviewing and organizing your notes into an effective study guide.

The Cornell method promotes active learning and critical thinking by providing a method that helps you increase your comprehension of class material. There are five stages involved in the Cornell note-taking method.

STAGE 1: RECORD

Prepare to record your notes by drawing a vertical line about 2 ½ inches from the left edge of your paper. The **left column** is your *recall column*, which you leave blank until Stage 2. The right, larger column is where you will record important information from the lecture.

You can use any format you find effective to record your notes, such as outline, informal outline, paragraph format, etc. In your notes, ensure that you include diagrams, illustrations, and questions/answers provided by the professor during his/her lecture.

EXAMPLE of note paper formatted in the Cornell method:

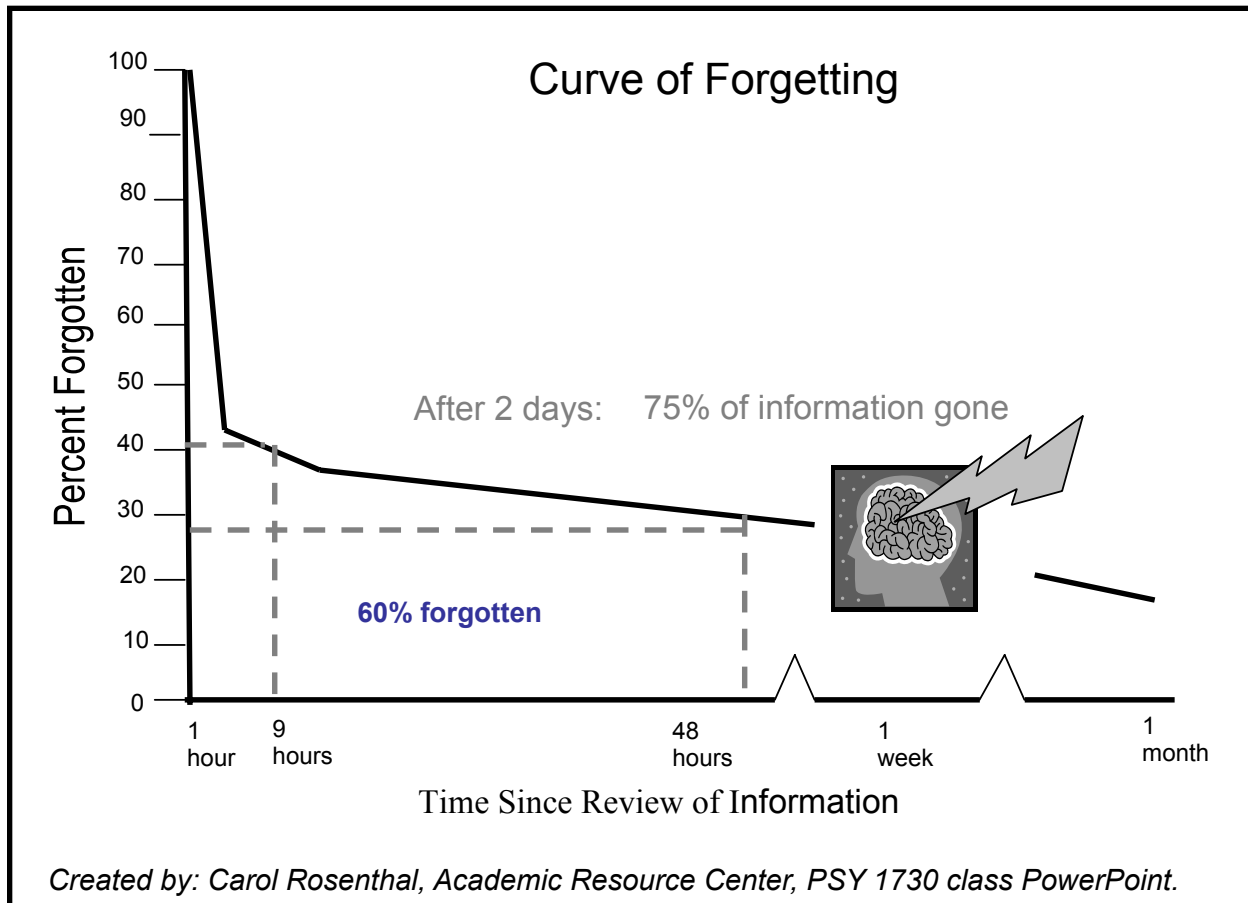| recall column	record your lecture notes in the right, larger column
	Photosynthesis *January 24*

STAGE 2: REDUCE

As soon after class as you can, review and **condense** your notes **in the recall column**. This reduction stage significantly improves your understanding of lecture material and your ability to remember the information.

The "Ebbinghaus curve," or **curve of forgetting**, below identifies what happens when you do not review new information. The numbers on the horizontal axis indicate the time since lecture material was first presented. The numbers along the vertical axis of the graph indicate the amount of information that is forgotten. You can see that if you do not review new information within 24-48 hours, 65-70 percent of information is forgotten after the first exposure to the information.

It cannot be emphasized too often: Reviewing notes within 24 hours and frequently thereafter will greatly reduce the amount of material you forget. These reviews can be brief, as long as they are consistent.

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Without consistent reviews, you will actually have to relearn the information before a test. Relearning information in a short amount of time increases your anxiety and decreases your ability to understand information sufficiently to perform well on most college tests.

Curve of Forgetting

After 2 days: 75% of information gone

60% forgotten

Percent Forgotten

1 hour   9 hours   48 hours   1 week   1 month

Time Since Review of Information

Created by: Carol Rosenthal, Academic Resource Center, PSY 1730 class PowerPoint.

To reduce your notes into the recall column, do the following:

Step 1:   Write **key words and phrases** to summarize main points of the lecture. Use as few words as possible.

Step 2:   Include **questions that help you to clarify** unclear ideas or **examples** to elaborate on your lecture notes by connecting ideas together.

Step 3:   Develop **potential test questions** that you think the professor could ask you relating to the lecture information.

Step 4:   **Summarize** the lecture in your own words. Summarizing information is another way of reviewing and critically thinking about what you have learned. Preparing summaries in your own words helps you identify what you know and understand, as well as making very obvious the information for which you need additional clarification from the professor or study partners.

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Example of REDUCE phase using the recall column:

Climate Classification	
	I. System of climate classification
Koppen	A. Invented by Vladimir Koppen: botanist who saw biological
	activities as a function of climatic characteristics
What did he do? Why imp.?	B. created a climograph
Define Climograph	** Displays mo'ly temp. and precip. on 1 graph
	C. main concern: make it simple
How do you calculate	*rel'ship between potential evap. & amt. of mois. rec'd
problem on a climograph?	at any geo. location
Give example.	
	II. Arctic climates: ET & EF
lists/define E Climates	E: avg. mo. temp. <50
Characteristics?	ET: avg. temp. warmst mo. 50F & <32 F
	* tundra or continental sub-arctic
	EF: avg. temp. in warmest mo. <32F
	* ice cap or arctic
Define humid dry boundary	III. Humid Dry Boundary
How calculated?	A. Marks maj. diff. between humid & dry climate regime
Example?	B. Must know how boundary calculated
Summary: Koppen was a botanist who invented a system of climate classification. He believed that characteristics of climate determined biological activities such as ??????. To classify climates, he developed the climograph, which displays variables of monthly temp. and precip. We are looking at the relationships between potential evaporation and amt of moisture received at a particular geographic location. E-type climates are locations where avg. mo. temps are less that 50. Precip. is received, but comes as snow. ET climates are tundra or continental sub-arctic; warmest mo. = temps of 50-32F. EF climates are ice cap or arctic; warmest mo. = below 32 F.	

Stage 3: RECITE

During this stage, use the recall column to cue your memory. Cover up the right-hand column where you recorded your notes, and use the key words, phrases, and questions in the recall column to review the information. Put your answers in your own words as much as possible. If you have difficulty recalling the information successfully, do another review of your lecture notes.

Stage 4: REFLECT

After reviewing and reciting your notes, give yourself some "wait time." Then, reread your notes and think about them. Read your text to supplement and clarify your notes. Use your text and lecture notes to discover the causes and effects of issues, define terms, and relate concepts. Make generalizations and draw conclusions. This helps you to become a more active, critical thinker.

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Stage 5: REVIEW

Briefly review your notes several times per week to retain what you have learned. This consistent review and repetition of your notes is called "distributed review," which keeps information fresh and decreases your chances of forgetting what you have learned.

Sources:
Saunders, L. & N. Call. Your Utah State Experience. IA: Kendall/Hunt. 1998. (Incl. Alsop, TJ. Principles of Physical Geography: An introduction to Natural Phenomena. IA: Kendall/Hunt. 1993.

References:
USU Academic Resource Center, Idea Sheet, "Note-Taking: Cornell Method."

Longman , D.G., & R.H. Atkinson. College Learning and Study Skills. CA: Wadsworth. 1999.

York University. Learning Skills Programme. http://www.yorku.ca/admin/cdc/lsp/note4.htm

Cornell and Prepared Notes Methods

EXAMPLE ONE: CORNELL NOTE-TAKING METHOD

GEOG 1000 September 5	Climate Classification
(2 ½" column for questions, key words, terms, important dates, or people.)	**(6" column for taking notes)**
Koppen	System of Climatic Classification
	-Invented by Wladimir Koppen
Why is it important?	-A botanist who saw biological activities as a function of climatic characteristics.
Climograph	Created climograph
	-Displays monthly temperature and precipitation on one graph
How do you calculate a	Making it simple: Main Concern
problem on a climograph?	-the relationship between potential evap. & amount of mois.
	Received at any geog. location.
What are the characteristics	Arctic Climates - Symbols ET and EF
of E Climates?	-E climates have aver. Monthly temp. < 50.
	ET – Tundra or Continental Sub-arctic
	Aver. Temp in warmest month 50 F and 32 F
Boundary Calculations?	The Humid Dry Boundary
What is the key importance	Marks the major difference between a humid and a dry climate
of temperature and	
precipitation?	
	Climate Regime
	Must know how boundary is calculated
(2" space for a summary, cross-reference with other notes or material, or similar consolidation of info.) Koppen was a botanist who invented a system of climate classification. He believed that characteristics of climate determined biological activities. To classify climates, he developed the climograph, which displays variables of monthly temp. and precip. We are looking at the relationship between potential evaporation and amt. of moisture received at a particular geographical location. E-type climates are locations where avg. mo. temps are less than 50. Precip. is received, but comes as snow. ET climates are tundra or continental sub-arctic; warmest mo. = temps of 32 F. EF climates are ice cap or arctic; warmest mo. = below 32 F.	

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EXAMPLE TWO: PREPARED NOTES METHOD

what you expect = climate

▼ **Figure 4.7 Instructor-Provided Class Notes**

what you get = weather

Long-term weather

(H = Highland)

Supplement for Physical Geography

SESSION 5

CLIMATIC CLASSIFICATION

to figure out hemisphere =
northern = warm summer months (May/June - Aug/Sep)
southern = warm summer months (Oct/Nov - Mar/Apr)

5.1 <u>Climatic classification</u>. The climate classification system used
but, not the only one!
in this course is the most widely-used and accepted climatic
(Köppen)
classification system named after <u>its inventor—Wladimir Koeppen.</u>
"Climatologist"
Trained as a (botanist,) Koeppen realized that many biological

<u>activities are a function of climatic characteristics</u>. Beginning

with his doctoral dissertation to his death in 1940, he originated,

revised, and refined his classification system. To aid in the

classification of climates, the climatic diagram (called a

<u>climograph</u>) has been developed which displays the variables of

monthly temperature and precipitation on one graphic. The purpose of

any classification system is to make simplicity from complexity;

though the earth/atmospheric energy exchanges with the sun which

create climate variability are extremely complex, we will be simply

concerned with the relationship between potential evaporation and

the amount of moisture received at any geographic location. ✱

5.2 <u>The arctic climates with symbols ET and EF</u>. The E-type climates

are locations where average monthly temperatures are less than 50°

F. Here, precipitation is received, but it comes in the form of snow

and is often not immediately available for biological functions.

E's all less than 50°
ET = 32°–50°
EF = below

There are two types of E climates; ET (Tundra or Continental

Subarctic) and EF (Ice Cap or Arctic). ET climates have average

temperatures of the warmest month between <u>50°F and 32°F</u>, and EF

climates are those whose average temperatures of the warmest month

are <u>below 32°F</u>.

A's at equator — E's at poles

N. pole
equator
S. pole
E D C B A B C E
no D's in Southern!
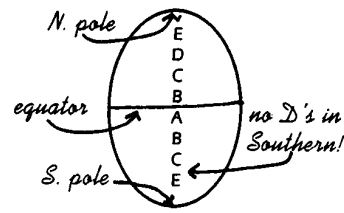
Cornell and Prepared Notes Methods

USING INSTRUCTOR-PREPARED NOTES

Often your instructors will indicate that the notes for the course lectures are available on their course website or have been placed on Canvas. Some notes might be available for purchase in the Bookstore. These resources are designed for students to access the class notes and review them before coming to class. Students would be wise to read through the notes in advance of attending class to build background knowledge and readiness to learn. They are not intended as a substitute for a student's class attendance.

During the lecture, you can use the course notes to listen carefully to the instructor and add information from the lecture that is not on the prepared notes.
By underlining key words, adding symbols and comments, you will be creating a study guide that will facilitate your review of the important information.

Here are some ideas to try:

1. Use a pen that will clearly mark the information.
2. Use an asterisk (*) or exclamation point (!) or underlining to indicate important points addressed by the instructor in his or her lecture. Alert yourself to the most important points by using double asterisks or double underlines. Mark concepts that you want to follow up on later.
3. Put question marks by concepts or terms that you do not understand. Follow up on these later by reading the text, attending a supplemental instruction (SI)session, or visiting with the instructor during office hours.
4. Use colons or arrows to show that one idea results from or causes another.
5. Explore using parenthesis ( ), brackets [ ], and circles and squares to group information that belongs together.
6. Use Ex: to note added examples of the information from the lecture.
7. Make simple drawings of ideas and concepts on the notes.
8. Review your notes within 24 hours.
9. Review again within a few days to store in long-term memory