# Dr. Griggs' Study Tips for College Students

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The skills you relied on to succeed in high school may not be sufficient in college.

Why?

According to Nist & Holschuh, 2000 (authors of *Active Learning: Strategies for College Success*) College differs from high school in at least 9 ways:

- 1) College requires greater independent learning. (You are now more responsible than you have ever been for your own learning.)
- 2) College classes move at a faster pace (they cover more material, in greater depth)
- 3) College classes require you to think critically (beyond the definitions into application)
- 4) College classes have fewer safety nets. (professors are less likely to curve, drop low grades, make exceptions to the rules, excuse late assignments or give extra credit)
- 5) College requires you to study longer and more effectively (that is, there are actually methods of studying that yield better outcomes than others... you'll want to learn these. A few of these are included in this handout.)
- 6) College provides fewer chances for evaluation. (less assignments mean each counts for more toward your final grade)
- 7) College gives you greater freedom *and* greater responsibility. (you'll need to learn to balance your freedom with your study time).
- 8) College provides greater anonymity. (Because classes are larger, you are less likely to be held accountable for missing class, turning in work late, or performing poorly on exams. For many students, this provides too much freedom to get behind. Avoid this by getting to know your professors well and never assume it will be okay to turn in late assignments.)
- 9) College requires you to be proactive. (Most students cannot passively cruise through college courses like you did in high school. You will need to employ active learning strategies to succeed).
- 10) Support services exist on every campus to help students become active learners. At Winthrop, this office is the TRIO office (http://www.winthrop.edu/triosss/)

### Four key factors influence learning (Nist & Holschuh, 2000)

- 1. Your own characteristics as a learner.
- 2. The tasks your professors ask you to engage in.
- 3. The texts with which you interact.
- 4. The strategies you select to learn information.

### The Good News: You have almost exclusive control over 2 of these!

### 1. Your characteristics as a learner

- a. Your Time Management Skills
  - *i.* Consider setting specific times during the week just for study time.
- b. Beliefs about How Learning Occurs
  - *i.* Understanding that knowledge is not certain, but ever-changing
  - *ii.* Understanding that learning takes time even for the brightest students!
  - iii. Learning to see the bigger picture not just the details, but the "so what"
    - iv. Learning to live with some uncertainty (there's not always a right answer)
- c. Your Ability to set specific, realistic, achievable study goals
- 2. The strategies that you select to study and learn information
  - a. See page 3 for some examples of "active" learning strategies

# **Mastering Your Study Time**

### Getting Organized, Managing Yourself and Your Time

You can organize your time by:

- Treating college like a job. Consider treating your role as a student as an 8-5 job. Most students are in class between 2 and 5 hours each day. What you do with the other 3 work hours is up to you. However, if you are not in class, you could be reading, working on homework, projects, or studying for upcoming tests. After you clock out, the rest of the day is yours!
- Scheduling your classes at your most alert times.
- Going to class.
- Procrastinating less. This usually requires setting specific study times and avoiding distracters.
- The schedule you create should be reasonable *and flexible*. Start small (just 5-10 minutes a day will make a huge difference! Don't try to tackle it all too quickly. This is a major change to how you've spent your free time before now. Overstating your goal may undermine your success and your sense of efficacy for achieving your study goals.
- Rethink your schedule during periods of heavy testing such as midterms and finals so that you leave ample time to work on course projects and study for tests.

### Study Time:

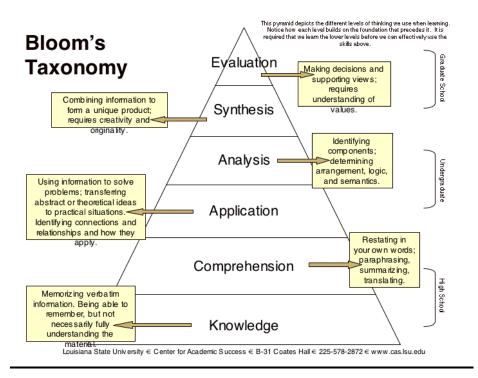
- Amount of time spent studying:
  - Many students perform well in high school with little to no studying. However, in order to succeed in college you will probably have to spend more time studying than you did in high school to maintain the same level of performance.
- When to start studying
  - Don't wait until the night (or even the week) before the exam to start studying. Research shows that learning takes *time and repetition*. With the amount of information covered in college courses, you should commit to making studying a part of your *everyday* routine. Seriously? Yes. Even if you only crack your notebook for 5 minutes on the bus, or while you're waiting for class to start. It helps just to re-familiarize yourself with the material now and then. This will make your study time a breeze before the test!
  - Most colleges suggest spending as much as 2-3 hours studying and working on homework per week, per credit hour that you are enrolled. That's approximately 6-9 hours of study time per week for a 3 credit course.
  - Cramming may help you get by for some tests, but you can avoid a lot of stress and anxiety as well as being able to retain what you learn for the long term if you *study in small chunks* (again, even if it's 10 minutes in the doctor's office, or while you are preparing dinner). Repetition of small chunks over several days makes learning more fun and easy! (remember serial position effect!)
- Type of time spent studying:
  - Remember, it's not just more time, but better use of your time. Elaborate and look for meaning... don't simply "repeat" the material over and over again.
  - Learn to use the strategies listed here to make better use of your study time.

## Several Common, but *mostly in*effective study strategies used by college students:

- Simply reviewing and/or re-reading over your notes or the book before the test
  - *Familiarity* (surface, superficial encoding) with a concept isn't the same as *learning the concept*. College exams ask you to do more than recognize words! They ask you to comprehend, apply, analyze, synthesize and evaluate. This is really difficult unless you know the material on a deeper level.

# (See Bloom's Taxonomy for learning material below and notice the difference in levels of learning)

Image courtesy of Louisiana State university Center for Academic Success



- Reading the highlighted or underlined text in the book
  - Even if you are the one who made the underlines or highlights, this is a very passive strategy for learning. Instead, try *summarizing* in the margins. We call this annotation. You paid for the book, make good use of it! The bookstore will not pay you any less for a resale book if you have marked in it.
- Flash Cards:
  - o aren't usually effective unless you go beyond memorizing definitions.
  - Detailed "concept cards" are much more effective. See page 3 for examples
- Memorize, cram, absorb/acquire knowledge, listen, hear, be taught:
  - These area all passive forms of learning. You may become familiar, but won't be able to recall, apply or provide examples of the concepts. You must become more *actively* mentally engaged in the learning process in order to encode and synthesize.

# Active & Effective Study Strategies and How to Use Them:

**Pre-reading:** (reading or skimming the chapter Headings *BEFORE* class)

- Pre-reading helps you gear up for both reading and studying.
- Previewing the reading and determining your purpose for reading help you get more out of your text, lecture and study time. It gives you a framework for the lecture material.

Annotate: Write SOMETHING while you're reading.

- Active learners are also *active readers*.
- Highlighting is not active reading. (especially if you highlight everything on the page)
  You want to go beyond physical activity to *mental encoding*.
- Annotation is a strategy that encourages active reading and mental encoding.
  - Annotation is the process of re-phrasing, paraphrasing, or summarizing what you read by writing brief notes in the margin of your textbook or in your notes.
  - You CAN write in your book! They don't pay you any less for them when you sell them back if they are written in!
  - The time you spend doing this now will pay off big in overall study time.
- There are certain kinds of information you should annotate.
  - Don't *summarize everything*. Instead, look for key points, key concepts, and key arguments presented in the reading or in class lectures.
- Avoid annotation pitfalls...
  - Don't fall into the trap of re-writing the text! Summarize, paraphrase, re-phrase!!
- Also annotate (summarize) your notes when studying... pair them down to the essentials... this overall outline will help you draw connections between concepts and give a better idea of the <u>big picture</u>. This can be particularly helpful in preparing for <u>essay</u> exam questions.

**Timelines**: these don't always apply, but they can be especially helpful for history or getting an idea of when things occur in relation to others.

Concept Mapping: draw a visual map of the material on paper. (see last pages for an example)

**Tables/Charts:** great for classifying information and drawing relationships between concepts. Great for comparison and contrast! (see last pages for sample tables and charts)

**Concept Cards**: (different from simple index cards) Put the concept name on one side of the card, and definition on the other. But don't stop there! Try applying the concept to something REAL and MEANINGFUL TO YOU. Give examples. Make some notes about why this concept is important and WHY it fits into the overall picture of the lecture or chapter.

**Question/Answers:** Anticipate test questions: put yourself in the position of the teacher! What would you ask about this concept? *Why* is it important?

**Study groups**: Have as many in the study group as you have chapters to study. Make each person the expert on one chapter. Each expert should teach and quiz others on the chapter. If you teach a concept, you will know it!

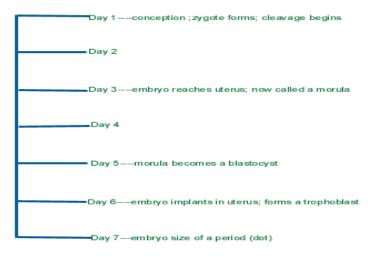
\*Be flexible with your strategies! Some of these work better than others depending on the topic and the material you're trying to learn.

### 25 Good Habits When Studying for EXAMS

Adapted from Gregory Wells, Coordinator, William James Center, Davis and Elkins College, Elkins WV., NACADA Conf. 1987

- 1. Plan ahead: 2 hours study time for every hour you spend in class.
- 2. Study difficult subjects first.
- 3. Avoid scheduling marathon study sessions! Remember, distributed practice is superior to mass practice (i.e. cramming). So, review throughout the semester--not just the night before.
- 4. Be aware of your best time of day (when your energy is highest).
- 5. Use waiting time. (Such as between classes, waiting for appointments, etc.)
- 6. Use a regular study area (if it's your bedroom, read #7.)
- 7. Don't get too comfortable.
- 8. Occasionally use a library for studying; you may need research materials to help.
- 9. Use metacognition: Pay attention to your attention! Catch your attention wandering and bring it back to the material. If you cannot do this, find a different place or time to study.
- 10. If you need a short break, take one. Better yet, plan short breaks after every 30 minutes of study time.
- 11. Agree with living mates and or family members about study time.
- 12. Avoid noise distractions including TV, video games, e-mail notifications, friends chatting.
- 13. Notice how others misuse your time (chat sessions, phone calls, etc) Ask for their cooperation.
- 14. Get off the phone.
- 15. Learn to say "No, not now; perhaps later."
- 16. Plan and prioritize your free time. Is hanging out with friends tonight more important than your weekend date? If so, head out tonight and stay in over the weekend to study.
- 17. Hang a "Study Time" sign on your door.
- 18. Ask: What is one task I can accomplish toward my goal?
- 19. Ask: Am I beating myself up? Am I beating a dead horse? If you're stumped or if you're just not getting it, move on and come back later after you've had a chance to regroup or ask the professor about it.
- 20. Begin your study session by reviewing your lecture notes. If you will have a comprehensive exam try to review one unit at a time. As you review your notes, try to verbalize a summary of the key ideas for each day's lecture. Ask yourself several (10-15) short answer questions over the lecture 's content. (Example: "What are the 4 lobes of the brain?")
- 21. Then review your textbook assignments by: a) looking at study guides provided by professors b) answering questions or problems at the end of the chapters. c) rereading the textbooks conclusion, introduction, italicized words, bold face headings, visual aids.
- 22. Review your annotations.
- 23. Ask yourself questions you think your professor would ask you.
- 24. Get a good night's rest. Sleep can have a substantial impact on memory and cognitive functioning, decision making and problem solving.
- 25. Get up early, eat breakfast, exercise, shower, and go to class.
- 26. Remember, test anxiety can result from poor planning and ineffective study strategies. Avoid this type of anxiety by setting goals and mastering your plan!

# SAMPLE TIME LINE

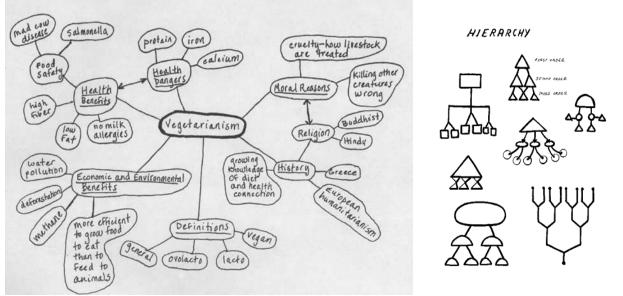


# SAMPLE OUTLINE

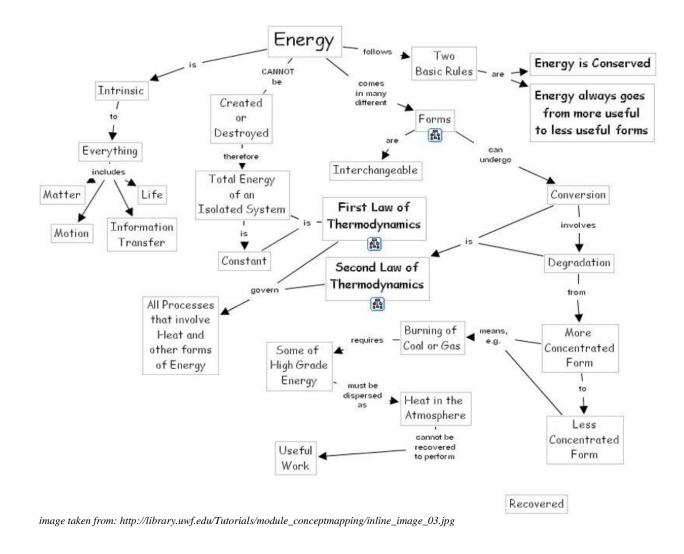
#### Learning Chapter Outline

- 1) Learning a process where experience modifies pre-existing behavior and understanding.
- 2) Habituation & the Opponent-process theory
- 3) Classical conditioning
  - a) Associations
  - b) Pavlov
    - i) Unconditioned stimulus (UCS), Unconditioned response (USR), Conditioned stimulus (CS), Conditioned response (CR)
    - ii) Extinction
    - iii) Reconditioning
    - iv) Spontaneous recovery
    - v) Stimulus generalization and discrimination
    - vi) What leads to conditioning?
    - vii) Phobias
  - c) Operant conditioning
    - i) Responses
    - ii) Thorndike law of effect
    - iii) Skinner box
    - iv) Basic components
      - (1) Operant response
      - (2) Reinforcer increases the operant behavior
        - (a) Positive reinforcement
        - (b) Negative reinforcement
      - (3) Punishment decreases the operant behavior
        - (a) Positive Punishment
        - (b) Negative Punishment
      - (4) Escape and avoidance
      - (5) Discriminative stimuli
      - (6) Stimulus generalization
    - v) Forming and strengthening operant behavior
      - (1) Shaping
      - (2) Primary and secondary reinforcement
      - (3) Schedules of reinforcement
        - (a) Fixed-ratio (FR)
        - (b) Variable-ratio (VR)
        - (c) Fixed-interval (FI)
        - (d) Variable-interval (VI)
- 4) Applications of learning
  - a. Learned helplessness b) Observational learning and c) Active learning

# SAMPLE CONCEPT MAPS



images from http://library.humboldt.edu/infoservices/Comm280/Concept-Map.jpg & http://classes.aces.uiuc.edu/ACES100/Mind/graphics/heirb.gif



# SAMPLE TABLES

#### TABLE 4.1 Differences Between Rods and Cones

	Rods	Cones
Shape	Nearly cylindrical	Tapered at one end
Prevalence in human retina	90–95%	5-10%
Abundant in	All vertebrate species	Species active during the day (Birds, monkeys, apes, humans
Area of the retina	Toward the periphery	Toward the fovea
Important for color vision?	No	Yes
Important for detail?	No	Yes
Important in dim light?	Yes	No
Number of types	Just one	Three types

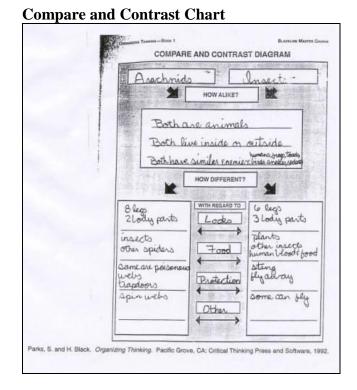
© 2005 Wadsworth - Thomson

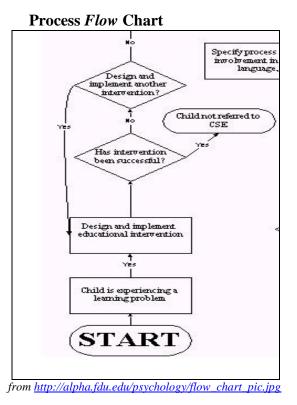
# TABLE 8.3 COMPARISON OF CLASSICAL AND OPERANT CONDITIONING

	Classical Conditioning	Operant Conditioning
Response	Involuntary, automatic	"Voluntary," operates on environment
Acquisition	Associating events; CS announces UCS.	Associating response with a consequence (reinforcer or punisher).
Extinction	CR decreases when CS is repeatedly presented alone.	Responding decreases when reinforcement stops.
Cognitive processes	Subjects develop expectation that CS signals the arrival of UCS.	Subjects develop expectation that a response will be reinforced or punished; they also exhibit latent learning, without reinforcement.
Biological predispositions	Natural predispositions constrain what stimuli and responses can easily be associated.	Organisms best learn behaviors similar to their natural behaviors; unnatural behaviors instinctively drift back toward natural ones.

from Myers, Understanding Psychology 7 edition, Prentice Hall, Online Picture Gallary.

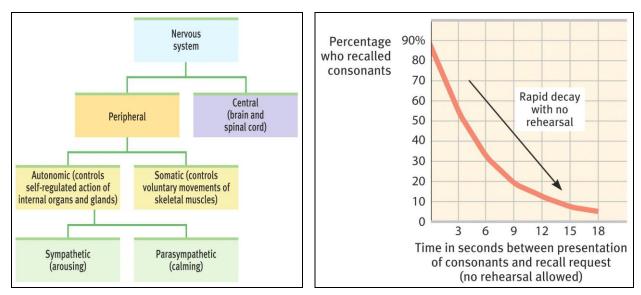
# **SAMPLE CHARTS**



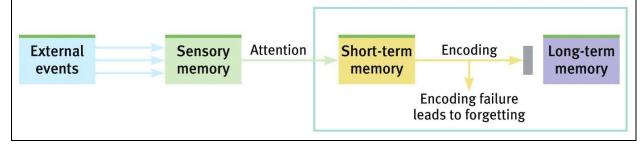


# **Organizational Chart**

## **Relationship Chart**

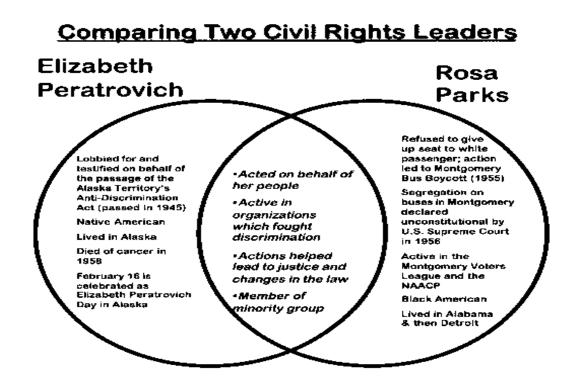


### **Process Flow Chart**



# **OTHER TYPES OF DIAGRAMS**

# ... Vigne Diagram for Addressing Similarities & Differences



# ...A Structural Diagram for labeling anatomy or structure

THE MAJOR STRUCTURES OF THE NEURON

The neuron receives nerve impulses through its dendrites. It then sends the nerve impulses through its axon to the terminal buttons where neurotransmitters are released to stimulate other neurons.

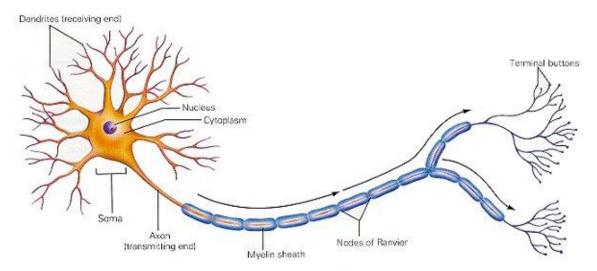


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