

Revision, Study, and Exam Skills

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Revision--

1. A second look
2. Not a time to (purposefully) learn something new
3. Have a plan
4. Gather your resources
5. New research implies that it is best to study in short bursts and to change topic and location frequently.

Resources--What do you have?

1. Subject resources:

- a) coursework
- b) syllabus
- c) past papers
- d) what else?

2. Personal resources

- a) other students in the course
- b) lecturers/academic advisors
- c) family and friends
- d) who else?

Where to begin?

Brainstorm: Where do you feel most confident?
Where do you feel most nervous?
What did you leave out?

Active Revision:

Without active, planned, revision, we tend to forget over 80% of what we have learned within three weeks.

Timetable:

Make sure you have figured out when your best times to study are. (Are you a morning person? Do you study better after a meal? Do you need to exercise first?)

Learning Skills

- Won't help everyone, but can be somewhere to start
- Asks you to figure out things like:
 - Do you learn better after trying things out? OR
 - Do you learn better after you think something through?
 - Source:
<http://www.engr.ncsu.edu/learningstyles/ilsweb.html>

Active/Reflective Learners

- Active learners tend to retain and understand information best by doing something active with it-- discussing or applying it or explaining it to others. Reflective learners prefer to think about it quietly first.
- "Let's try it out and see how it works" is an active learner's phrase; "Let's think it through first" is the reflective learner's response.
- Active learners tend to like group work more than reflective learners, who prefer working alone.
- Sitting through lectures without getting to do anything physical but take notes is hard for both learning types, but particularly hard for active learners.

SENSING AND INTUITIVE LEARNERS

- Sensing learners tend to like learning facts, intuitive learners often prefer discovering possibilities and relationships.
- Sensors often like solving problems by well-established methods and dislike complications and surprises; intuitors like innovation and dislike repetition. Sensors are more likely than intuitors to resent being tested on material that has not been explicitly covered in class.
- Sensors tend to be patient with details and good at memorizing facts and doing hands-on (laboratory) work; intuitors may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.
- Sensors tend to be more practical and careful than intuitors; intuitors tend to work faster and to be more innovative than sensors.
- Sensors don't like courses that have no apparent connection to the real world; intuitors don't like "plug-and-chug" courses that involve a lot of memorization and routine calculations.

VISUAL AND VERBAL LEARNERS

- Visual learners remember best what they see--pictures, diagrams, flow charts, time lines, films, and demonstrations. Verbal learners get more out of words--written and spoken explanations. Everyone learns more when information is presented both visually and verbally.
- In most college classes very little visual information is presented: students mainly listen to lectures and read material written on chalkboards and in textbooks and handouts. Unfortunately, most people are visual learners, which means that most students do not get nearly as much as they would if more visual presentation were used in class. Good learners are capable of processing information presented either visually or verbally.

SEQUENTIAL AND GLOBAL LEARNERS

- Sequential learners tend to gain understanding in linear steps, with each step following logically from the previous one. Global learners tend to learn in large jumps, absorbing material almost randomly without seeing connections, and then suddenly "getting it."
- Sequential learners tend to follow logical stepwise paths in finding solutions; global learners may be able to solve complex problems quickly or put things together in novel ways once they have grasped the big picture, but they may have difficulty explaining how they did it.

Exam techniques (that you can use to revise)--RUNLAW

R—read

U—underline

N---number

L—list

A--add details

W—write

Samples

- Explain why it is not possible, using a single telescope, to directly detect an extra-solar planet by the visible light reflected from its star
- Draw a Hertzsprung-Russell diagram, clearly labelling the axes. Show the main sequence and regions on the diagram where red giants, blue super-giants, and white dwarfs are located.

Further Techniques

- Answer the “easiest” questions first
- Attempt every question
- Leave ten minutes (or more) at the end to check your work
- If you get stuck, move on, often the answer will seem more obvious later (and sometimes is found later in the exam!)