How to use your laptop, hand-held devices, cell phones, etc.

Introduction

Laptop computers, hand-held devices and cell phones have evolved from desk-top computers and organizers for business professionals to powerful, multi-featured, and multi-purpose devices. For university students, these new accessories have moved well beyond the "fun gadget" phase to become useful academic tools. Technological innovations such as wireless connectivity have transformed them into the equivalent of a modern "Swiss army knife" providing Internet capability, organizational features, entertainment, and connectivity to other Internet devices such as printers. With add-on software and hardware, these devices can serve a range of functions, from notebook to calculator, data storage unit, and even GPS systems.

This Study Skills Tip Sheet looks at a number of ways in which these tools can be used as academic tools, and provides advice and information on how you can use your device effectively to get the most from your investment.

Information Storage

Of course your laptop, phone or hand-held device will be handy for storing phone numbers and email addresses for family, friends, group members, and classmates. It's also a good place to record the contact information you'll find in your course outlines, so you have all the details for all your courses in one convenient location. Suggestions for what to record include:

- class schedule
- blocks of time set aside for studying
- name, email, and extension for course instructors
- name, email, and extension for lab instructors
- office hours and location for instructors locations and times of labs or seminars
- location and extension for department office for each course
- locations and hours for relevant help labs
- hours of campus facilities such as the library.

For adult students balancing university study with family responsibilities and perhaps work as well, these accessories can be invaluable tools for gathering, organizing, and coordinating academic, family, and work-related information and schedules, all in one convenient place.

When it comes to other data, such as Word or Excel files, your phone or hand-held accessory is best used for temporary storage. Its limited capacity means that documents and digital pictures will take up a large proportion of its memory. If you have a high-end model or have purchased an external memory card, you can store more, but for long-term storage, it's safer and more practical to use other devices such as a lap-top or personal computer.

Information Security

Wherever you choose to save and store course-related (or any other important) files, be sure to back them up regularly and consistently. Major papers, assignments, or theses should be backed up in several locations. Neglecting to back up important files is an all too common problem among students. Personal device users should also keep close track of what information is in their hand-helds in case they are lost, stolen, or malfunction. Put contact information on or with your device (but choose something secure, like an email address) so you can be reached if it's lost. Just in case, password protect access to the data if it has this feature.

Time Management

Effective time management doesn't mean following a strict schedule with rigid self-discipline; it does mean being proactive, making thoughtful choices, and maintaining a sense of control over your time and your life.
That sense of control comes from knowing what work you have to do and making intelligent decisions about when it is easiest and most efficient to get it done. New phones and hand-helds come with a number of time planning tools that are useful for listing, organizing, and planning academic tasks.

Planning & To-Do Lists

Though many people keep track of day-to-day activities in their heads, research has shown that the most effective time managers keep a regular list of the tasks they need to do each day. It's natural to use your phone or hand-held for recording the dates for tests, exams, and assignment deadlines, but be sure also to include what percentage of your final mark each is worth. This is important to know when prioritizing tasks during crunch times. You can also use this system for making daily to-do lists of regular, recurring academic tasks such as reading, reviewing notes, or working on problem sets, as well as one-time major projects requiring multiple steps.

Once you've gotten into the habit of using your accessory to list what you need to do each day, the next step is to prioritize the items on the list. You'll get down to work

more quickly and accomplish more if you know what to do first, rather than reading the list over and over, trying to decide what you feel like doing at the moment.

Another planning strategy that can be used is estimating how long a task will take, and then keeping track of how long it actually takes to complete. (If you don't have a built-in timer, you can download software for this.) Accurate estimates are important for deciding how much you can accomplish in a specific time period. For more information on using to-do lists effectively, see the Study Skills Tip Sheet Making a Task List.

Dates, Deadlines, & Meetings

Your phone or hand-held device is a useful tool for keeping track of:
- important academic deadlines like add/drop dates
- due dates for assignments, essays, lab reports
- date, time, location, and length of tests, midterms, and final exams, and percentage of final mark each is worth
- group projects or study sessions
- meetings, appointments, practices
- volunteer and work shifts
- due dates for library materials
- deadlines for applications (scholarships, grad school).

This accessory can help you stay on top of multiple demands on your time by ensuring that you always know where you should be and what you should be doing, a helpful feature for student athletes, involved students, and those who work or volunteer.

Scheduling Group Meetings

One of the most challenging scheduling tasks at university is finding a common time to meet with fellow students for group projects and study sessions. These accessories can help by providing immediate access to your schedule (academic and otherwise), so you can instantly see when you're free to meet. In addition, many have advanced scheduling features, such as the ability to show a list of the available times that a group of individuals can meet according to their schedules, and to "beam" an appointment from one student to another.

Reminders & Alarms

You can set reminders and alarms to notify you of an upcoming class, meeting, appointment, or assignment. If you struggle with getting back to the books after a break from studying, your device can be set to signal when break time is over and it's time to get back to work. Students often find it difficult to keep track of time spent on the computer; your phone/hand-held can be used to monitor the time you're spending gaming, chatting, emailing, or

surfing the Web, and the alarm function can help to limit the time spent in these activities.

For more information on time management, visit the Counselling Department web-site at www.ufv.ca/counselling/study.

Sharing Files

As mentioned above, you can share information with other hand-held and phone users by transferring or "beaming" it using the infrared data transfer port built into most models. This feature can be very handy if you need to gather contact information for a number of people - members of your group, club, team, floor, etc. Group members can share their electronic "business cards", which typically include name, phone number, email address, etc.

Business cards can be swapped at the touch of a button, rather than having to enter the information into the address book, or write it out with pen and paper. For group projects, Word and Excel files can also be easily shared.

Keep in mind, however, that currently at UFV there is no campus facility for linking your accessory to a university computer or printer. In an emergency, it may be possible to install the necessary software on a university computer, but most computer labs don't allow the installation of software and public machines are programmed to remove any software that has been installed when the computer is rebooted. The best way to transfer a file from your device to a PC on campus is to email it to yourself (if you have Internet capability) and then copy the file. (You can go to the Help Desk for advice.)

Taking Notes

The practicality of reading and studying from a device's small screen is questionable, particularly when these activities are done intensely and for long periods of time, such as before an exam. Reading notes from any small screen doesn't easily allow you to annotate them, a critical part of processing and studying lecture content. Also, the limited storage capacity can be another drawback to using phones or hand-helds regularly for lecture notes.

Reference Materials for Science Students

Hundreds of free or inexpensive reference materials for laptops and hand-helds can be found on the Web (particularly for biological, medical and veterinary sciences), including medical databases, drug interaction tables, and diagnosis reference materials. Specialized dictionaries are available in a format compatible with the device's screen. Instead of carrying bulky reference books,

you can store the information you need on your laptop or hand-held for easy access.

Reference materials available for devices are generally intended to provide short, specific pieces of information, not to serve as the primary access point for reading lengthy material. If you are comfortable reading text for short periods on a computer monitor, you shouldn't have any problems reading from a laptop or hand-held screen for brief periods, depending on the quality of the display. Taking notes or annotating (underlining, highlighting, etc.) text as you read isn't easily done on a phone compared to laptop or paper, another factor that limits its value for longer reading tasks.

Recording & Playing Sound Files

Many laptops or hand-helds have the ability to record and play audio files. You can use this feature to record quick notes or lists instead of jotting them down on paper. Music and language students will find their hand-helds and laptops handy tools for their listening tasks, and students who must study in a noisy environment can listen to music to mask distracting sounds.

Creating audio files can be a valuable learning strategy for students who learn effectively by listening. These students may find that recording and listening to their notes from lectures and/or texts is a useful way to review that information, particularly for courses where a lot of content is conveyed through the lectures, making lectures notes an important study tool for tests and exams.

Students often wonder whether recording lectures is a good idea. The answer is usually no. There are exceptions, however - students for who English is a second language, or students with learning disabilities. On rare occasion when an instructor speaks very quickly or is difficult to understand, recording lectures may be useful. Test the quality and range of your hand-held's microphone before the lecture to determine how close you'll need to sit to the instructor. Be sure to continue to take notes as best as you can during class - if you leave listening and taking notes from the whole lecture for later, you'll more than double your lecture time and may impair the development of note taking skills. Rather than the whole lecture, record only brief segments on your device, such as when you miss something or lose the train of thought, and be sure to leave space in your written notes where you've recorded so there's room to add the information later. Regardless of how much of the lecture you record, be sure to obtain your instructor's permission.

For recording either lectures or your own notes, the hand-helds have several advantages over other systems. Unlike tape recordings, the file is digital, so you can easily skip to any section of the recording (no fast forwarding or rewinding). Because files can be transferred from your device to your home PC, you can easily store them for later reference - you don't have to worry about running out of tape or memory. Audio files do take a lot of space, however, so be sure to equip your device with sufficient memory for recording if you plan to use it in this way.

Calculating

For math students, graphing calculators are a valuable tool that can help you visualize the 'shape' of a function and find important landmarks and locations, such as intersections and derivatives. One of the negative aspects of graphing calculators is their high cost, putting them out of reach for many university students on a tight budget. Free or low-cost software is available that allows your device to function as a graphing calculator, with equivalent or even improved features when compared to stand-alone graphing calculator units. Another advantage of these graphing calculators is the improved visual interface available on the screen, and improved data entry.

Using your hand-held as a graphing calculator will save you from spending additional money for a separate calculator and improve the usefulness of your accessory. However, if you're considering installing this software on your device, it's important to know your professor's policy regarding graphing calculators. Graphing calculators are typically not permitted for midterms or final exams, so it's likely that hand-helds would also not be allowed in an exam. You should be aware that the use of your hand-helds as a calculator or graphing calculator will likely be limited to homework and assignment problems. A standard non-programmable calculator will probably still be required for most exams.

Photography

Some students are finding innovative ways to use digital cameras as an academic tool. For example, some take photos of the chapter summaries of books on reserve to have a convenient copy for later review. A student in the sciences uses her camera to take photos of lab experiments. By purchasing an add-on camera, you can use your accessory for taking digital photos. If you plan to use a digital camera for occasional or recreational photography, it may be cheaper to buy the add-on hardware for your device than a separate digital camera. Check your device's memory capacity to ensure it has enough space for your photo needs, and be sure to include the cost of extra storage and the camera hardware when deciding whether to purchase a separate camera or use your accessory for photography.

If photography is a required part of your course work (if you're an art or geography student, for example) it's questionable whether the hand-held can substitute for a full-featured digital or SLR camera - check with your instructor before making any purchases.

Laboratory and Field Work

Another versatile use of laptops and hand-helds, especially for science and engineering students, is as a data-logging tool. The results of an experiment can be recorded in your device using either add-on software for data logging downloaded to your device from the Internet, or a basic spreadsheet program that comes with the unit. Data recorded on the device can then be transferred to your home PC (by syncing the devices) and immediately organized and studied. This eliminates the time-consuming task of transcribing handwritten observations into a spreadsheet program for data analysis. Numerous free or low cost data-logging programs are available. Track, for example, is a generic data-logging tool that provides simple graphing features to help you see trends in your data. You can find Track by searching for it on the Handango website at www.handango.com .

Other types of hardware add-ons such as Global Positioning System (GPS) receivers, cameras, and various sensors (for measuring temperature, pressure, etc.) are available and can be used with data-logging software. These add-ons are expensive, so you should consider carefully whether they're worth the investment. If you're thinking about using your accessory for laboratory or fieldwork, discuss the idea with your lab supervisor or professor before making any purchases.

Exam Preparation

Add-on applications are available that allow you to create your own flashcards and quizzes so you can use your hand-held to prepare for tests and midterms. Study Studio by McGraw Hill (http://www.mcgraw-hill.com/), and WinFlash Educator from Open Window Software (http://www.openwindow.com/) are just two examples of software to help you study. It is prudent to try before you buy any study-related programs to ensure they will work effectively for you and the demands of your courses.

Flashcard study aids help you to master material by mimicking classical flashcards - small cards with the question on one side and the answer on the other. The user goes through the same two processes involved in classical flashcards - construction of the flashcard deck and review of the information to be memorized. This two-step process can make flashcards a powerful way to improve the retention of information being studied. One of the ways in which flashcards improve on this technique is by the use of

algorithms that rearrange the order of the flashcards based upon your understanding of the material. The flashcard program will focus on questions that you're having trouble with while ensuring that you still retain the information you've already learned. Other enhancements to paper flashcards include multimedia components such as audio files, graphics, and video clips.

You can make your own audio study aid by recording questions or definitions and including a pause in which to recite the answer before giving the answer in the recording. As mentioned earlier, you can also record and listen to notes from textbooks and lectures, or the condensed version of these notes that you prepare for reviewing before an exam.

Conclusion

This Study Skills Tip Sheet has discussed some ways that a laptop/devices can be used as an academic tool. Like any other device, these are only as useful as you make it. Take the time to read over the instructions that come with your device to ensure that you know what it can do and how best to use it for your academic needs. Talk to other users on campus or search the Web for more ideas on how to get the most from your accessories while at university.

Want more information?

The Counselling Department and the Academic Success Centre are your best sources for advice and information on issues related to learning, studying, time management, and academic performance.

Workshops on learning, studying, etc., are offered regularly each semester by the Counselling Department. Please contact Student Services at Abbotsford - 604-854-4528 (B 214) or Chilliwack - 604-795-2808 (A1318) to make an appointment.

Study Skills Tip Sheets providing information on many learning and time management topics, as well as writing and referencing, are available free to students. The complete range of Study Skills Tip Sheets is available on-line at www.ufv.ca/counselling/study/ .

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