Lecture 01: Scientific Writing basics

Part one: Verbs, adverbs and adjectives

Verbs:

A verb is a word that expresses action, condition, or state of being. In general, there are three main types of verbs

- **Transitive verbs** (verbs that requires an object to complete its meaning)

eg: praise, teach, strengthen, assure, maintain, enlist, hold, appraise, engage, guide, involve, pull, touch, convert, alter, modify, reduce, eliminate, destabilize, reject, ignore, command, corrupt, block, compress, Click, press, install, insert, upload, download, scan, uninstall, drag, select, build, enhance, exceed, execute, launch, calculate, analyze, design, predict, program…

- **Intransitive verbs** (verbs that does not require an object to complete its meaning)

Eg: agree, inquire, remain, rise, appear, disappear, emerge, happen, look, respond, sit, stand, arrive, consist, depend, exist, have, result, become, cost, occur, wait, expand, grow, adapt, run, perform,

PS: there are verbs that can be transitive and intransitive:

Do, open, close, run, set, change, cancel, return, start, stop, crash, register…

- **Phrasal verbs:**

⇨ Phrasal verbs are verbs that are made up of two parts, one of them is a preposition (in, out, up, down…)

PS: The phrasal verbs are considered informal. Therefore, you may reconsider using them in academic writing.

Phrasal Verbs for Technology and Computers					
Phrasal Verb	Meanings	Example	Phrasal Verb	Meanings	Example
log in sign in sign-in	*v.* connect to a computer using a username and password *n.* page or act of registering permission to use a program	To begin, **log in** to your desktop system.	click on	move a mouse over an item and press to select	**Click on** the start menu to begin.

hook up	to connect wires from machines to a power source or other machines	Would you please help me **hook up** the Internet cable?	scroll up scroll down	to move slowly to the top or bottom of a text	The news story was so long I had to **scroll down** a lot to read it all.
power up turn on	provide power to a machine	Press the red button to **power up** your tablet.	run out of	exhaust a supply of something	You will **run out of** disk space if you save copies of all your emails.
boot up start up	begin running a computer system	Wait a second, my computer **is booting up.**	back up backup	*v.* make an extra copy of a file *n.* an extra copy of a file	Be sure you **back up** your files before you change systems.
Shut down	To end/ to turn off	My computer just **shut down** by it self	Back up	*v.* to store another copy of the data in an online server	My computer automatically **backs up** my data into cloud
set up	*v.* to install a new computer program or assemble a computer system *n.* the process of adding information using a computer program	This application took a long time to **set up**.	print out printout	*v.* send an electronic document to a printer *n.* a printed document	I have to **print out** the directions before I leave home.
pull down pulldown	*v.* choose from a menu of options in a computer application extending down from the action bar like a window blind *n.* a menu of options	Look for the file menu and **pull down** to "Save As…"	hack into	enter a computer or network illegally	Someone **hacked into** my bank and stole millions of dollars.
go down	stop operating properly	I cannot send any emails because the server **went down**.	opt in / out	choose to receive advertising or messages	The company asked me to **opt in** to get special offers by email.

wipe out	completely erase or delete files	Before you donate your computer, be sure you **wipe out** the hard drive.	filter out	remove unwanted email messages	Can we **filter out** all the spam on this account?
pop up popup	*v.* to appear suddenly *n.* an advertisement that appears suddenly on a computer screen	If you do not want to see the ads, turn on your **pop up** blocker.	turn off shut down power down	end a session on the computer by closing an application or removing power	I'm tired, so I'm going to **shut down** the computer for today.
plug in plug-in	*v.* insert a cord into an outlet or port *n.* an addition to a software program that performs a certain task	**Plug in** your laptop over there.	go online/offline	to use the Internet / not use the Internet	I will send you that information as soon as I can **go online**.
sign up	register with a service	She **signed up** for an online dating service.	key in	type or enter characters using a keyboard	It takes too much time to **key in** that long password.

Adjectives:

⇨ Adjectives are nouns that are used to describe things, people, places…

Eg: accurate, limited, fast, modern, available, technological, scientific, functional, suitable, appropriate, latest, innovative, challenging, problematic, advanced, outdated, digital, wireless, exciting, affordable, safe, secured…

⇨ Adjectives come before the noun that they describe

⇨ You can form adjectives by adding "suffixes"

⇨You can add (y, al, ial) to **nouns** to form adjectives.

Eg: length (n) ➤ lengthy (adj)   nature (n) ➤ natural (adj)   finance (n) ➤ financial (adj)

You can also form adjectives by adding (ly, ish, ic) to **nouns**

Eg: human (n) ➤ humanly (adj)   amateur (n) ➤ amateurish (adj)   robot (n) ➤ robotic (adj)

You can also add (ous, some, able)

Eg: nerve (n) ➤ nervous (adj)   bother (n) ➤ bothersome (adj)   value (n) ➤ valuable (adj)

⇨ You can add (y, able, ous, some, al, ful, ic, less, ing, ive) to **verbs** to form adjectives

Eg: speed (v) → speedy (adj) | expand (v) → expandable (adj) | continue (v) → continuous (adj)

Practice (v) → practical (adj) | help (v) → helpful (adj) | analyze (v) → analytic (adj)

Harm (v) → harmless (adj) | annoy (v) → annoying (adj) | disrupt (v) → disruptive (adj)

⇨ some adjectives are formed by adding "ed"

Eg: limit (n) → limited (adj)   determine (v) → determined (adj)

⇨ A list of positive adjectives to describe people professionally:

active, enthusiastic, motivated, curious, creative, self-taught, autodidact, proactive, adaptable, hard-working, flexible, responsible, authentic, confident, determined, focused, open-minded, analytical, collaborative, dedicated, disciplined, organized, supportive, reliable, strategic, ambitious, decisive, assertive, articulate, visionary…

Adverbs:

An adverb is a noun that modifies a verb, an adjective, a clause, or another adverb. There are different types of adverbs used for different functions.

⇨ **Adverb of frequency:** describe how often something happens. They come before the verb and after "be"

Constantly, frequently, occasionally, sometimes, usually, never, always, rarely, daily, weekly, monthly, yearly.

Eg: data analyst **usually** interprets data to solve a problem.

⇨ **Adverbs of time:** nouns that refer to specific or general time periods.

Today, yesterday, tomorrow, tonight, soon, later, now, eventually, forever, still, yet, early, late, recently, since

Eg: AI has been a hot topic **recently**.

⇨ **Adverbs of degree:** describe the intensity of an action, and are used to describe adjectives and other adverbs.

Very slightly, slightly, quite, very, extremely, largely, partially, highly…

Ps: in academic writing, you may need to use some adverbs of degree to express hedging (probably, possibly, seemingly, presumably, arguably, conceivably)

Eg: the analysis stage is **extremely** crucial in software development.

⇨ **Adverbs of manner:** are usually formed by adding "ly" to adjectives, and often placed after the main verb but after auxiliary verbs such as (be, must, have, may)

Angrily, cautiously, nicely, slowly, precisely, unknowingly, loudly…

Eg: JAVA programming is **effectively** used to develop desktop and mobile applications.

⇨ Some adjectives can be used as adverbs:

fast, early, late, left, right, hard, straight, well.

Activity 01: Write "T" for transitive verb and "I" for intransitive verbs at the end of every sentence.

1. Encryption **maintains** data security in this shared environment. ( )
2. You need to **inquire** about the available IT job positions in this company. ( )
3. It is important that you **respond** to emails within a day or two. ( )
4. Check for updates to **enhance** your PC performance. ( )
5. You can easily **upload** multiple files from your computer ( )
6. Not using anti-virus software **results** in data lose. ( )

Activity 02: classify the following verbs as transitive and intransitive.

sit, insert, depend, stand, compress, disappear, download, reject, arrive, exist, corrupt, install, have, emerge, block, command, eliminate, ignore, destabilize, press, happen, consist, upload, look, respond.

Transitive	Intransitive

Activity 03: fill in the gaps with the correct phrasal verb.

Plug in, Back-up, Scroll down, Sign up, Click-on, set up

1. Be sure you ………………………… your files before you change systems.
2. It is easy to ………………….. Your account here, just write your full name and school.
3. Recently, Paula …………………… for a research articles website.
4. ………………….. Your wires correctly before tuning your devices on.
5. Don't ……………………. Any link that strangers send you.
6. I have nothing to do on weekends so I often……………………… my social media.

Activity 04: transform the words in brackets to form adjectives

1. It is ……………… (**danger**) to keep your privacy settings on.
2. Recently, it has been argued if robots can be……………… (**artist**).
3. It is assumed that computer programmers make a ……………… (**reason**) salary.
4. Data manipulation and processing is an important……………… (**Function**) requirement of a system.
5. Barbara Liskov is considered an ………………… (**impact**) computer scientist.

Activity 05: fill in the gaps with the correct adverb:

Frequently, eventually, possibly, carefully, hard,

1. Computer science students study ……………………. All the term.
2. Computer science students Write codes ……………………. to develop systems
3. Computer science students ……………………Design, implement, and measure the effectiveness of systems.
4. Computer science students could ……………………. Write any code for any program.
5. Computer science students will ……………….. land a job at a company as developers or IT managers.