

# GAC005 Computing I: Introduction to Computing for Academic Study

## GAC Computing

### What this module is, and how it is marked

GAC005 is not a programming course. It is about using a computer to do academic work well: finding sources you can trust, writing with other people, running a small project, and presenting the result.

Everything is assessed on what you produce. A typical set is a **search and writing task**, a **group project** 小组项目 with a presentation, a **video** 视频, and ongoing **coursework** 平时作业. There is no written examination, so the files you submit are the whole mark.

- Work is judged on the artefact and on the process. Keep drafts and notes; a group project is marked partly on your contribution to it.
- $\triangle$  **Academic integrity** 学术诚信 applies to media as much as to text. An image, a chart or a clip taken from the web needs a source, and a licence that allows the use.

### Search literacy

Anyone can find a page. The skill being assessed is finding a source you can defend.

- Search with **keywords** 关键词, not sentences. Pick the nouns that must appear in a good answer and drop everything else.
- **Operators** 运算符 narrow a search: quotation marks force an exact phrase, a minus sign excludes a word, and **site:** restricts results to one domain.
- Judge a source before you use it. **Authority** 权威性 asks who wrote it and what they know; **currency** 时效性 asks how old it is; **bias** 偏见 asks what the author wants you to think.
- A **primary source** 一手资料 is original material, such as the report of an experiment. A **secondary source** 二手资料 describes or interprets it, such as a news article about that report.
- **Search results are ranked, not verified** — position on the page says nothing about accuracy.

**Worked example.** The question is whether electric cars produce less carbon dioxide overall than petrol cars. A search for the sentence returns opinion pages. A search for the keywords *lifecycle emissions electric vehicle comparison* returns studies, and

adding **site:gov** narrows it to government reports whose authors and methods are stated. The second search is not cleverer, it is more specific about what a usable answer looks like.

### Collaborative writing

Writing together is a normal way to work, and the module assesses how you do it.

- A **cloud document** 云端文档 holds one live copy that everyone edits, which removes the “final\_v3\_really\_final” problem entirely.
- **Version history** 版本历史 records who changed what and when. It protects you: your contribution is visible even when a file looks like one voice.
- **Comments** 批注 propose a change without making it; **suggestions** 建议模式 make a change the owner can accept or reject. Use them instead of overwriting someone’s paragraph.
- Agree the **structure** 结构 before anyone writes. Splitting a document by section works; splitting it by sentence does not.
- Keep one **style** 文体: decide on person, tense and spelling at the start, and give one person the final read.

### Project management

A group project fails on organisation far more often than on ability.

- A **scope** 范围 statement says what the project will and will not do. Most overrun starts as an unwritten extra.
- **Milestones** 里程碑 are checkpoints with dates. They convert “we have three weeks” into something you can be behind on early enough to fix.
- Assign **roles** 分工 to people, not tasks to the group. A task owned by everyone is owned by nobody.
- A **team contract** 团队协议 records how the group will meet, decide, and handle a member who does not deliver. Writing it while everyone is friendly is the point.
- Track **dependencies** 依赖关系: the slide deck cannot be finished before the data is collected, so the data has the earlier deadline.

**Worked example.** A four-person project to survey and present student transport habits, due in week 6. Working backwards: rehearse in week 6, build slides in week 5, analyse in week 4, collect responses in weeks 2 to 3, write the questions in week 1. The questions are the riskiest item because everything downstream depends on them, so they get reviewed by the whole group and nothing else in week 1 does.

## Creating effective presentations

A presentation is judged on whether the audience understands, not on how much is on screen.

- One **message** 信息 per slide. If a slide needs two sentences to summarise, it is two slides.
- Slides support the speaker. **Bullet points** 要点 are prompts, not a script, and reading them aloud is the most common way to lose marks.
- **Contrast** 对比度 and size decide whether the back row can read it: dark text on light, at least 24 point, and a **sans-serif** 无衬线 typeface.
- Use a **chart** 图表 when the shape of the data is the point, and a **table** 表格 when exact values are. A chart needs axis labels and units, always.
- Cite sources on the slide where the material appears, and keep a full **reference list** 参考文献列表 at the end.

## Enhancing your presentation

Once the content is right, delivery is what remains.

- Rehearse **aloud** 出声, standing, with a timer. Reading silently hides every sentence you cannot actually say.
- **Signposting** 提示语 tells the audience where they are: “first”, “the reason for this”, “to sum up”. In a second language it does more work than any slide animation.
- **Eye contact** 眼神交流 and pace matter more than vocabulary. Slower is almost always better.
- Prepare for **questions** 提问 by listing the three you would least like to be asked, and answering them.
- **Animation** 动画 has one legitimate use: revealing a complex diagram one part at a time. Everything else distracts.

## The making of a video

A short video is assessed like any other academic product: planned, sourced and edited.

- A **storyboard** 分镜脚本 plans each shot before recording: what is on screen, what is said, how long it lasts. It is the difference between an hour of editing and five.
- A **script** 脚本 keeps a two-minute video to two minutes. Speaking unscripted takes three times as long and says less.

- **Audio quality** 音质 matters more than picture quality. A quiet room beats an expensive camera, every time.
- Use **licensed** 授权 material only: images and music released under a licence that permits reuse, credited on screen or in the description.
- **Export** 导出 to a common format at a sensible size, and check that it plays on a machine that is not yours before you submit it.

**Worked example.** A two-minute explainer on plastic recycling. The storyboard has eight shots of about fifteen seconds. Shot 3 is a chart of what a city actually recycles, on screen for twelve seconds with one spoken sentence, credited to the source in the corner. Because the storyboard fixed the length first, the script was written to fit the time, rather than the video being cut to fit a script that was already too long.