Questionnaire on Study Workload for Students Majoring in Electrical Engineering and Automation

(Developed in accordance with *Comprehensive Credit System Reform Plan of Kunming University* and *Administrative Measures for Monitoring Independent-Study Workload of Students, School of Mechanical and Electrical Engineering*. Designed for ASIIN-accredited programs to monitor student workload and benchmark ECTS credits. This questionnaire is anonymous, and data will only be used for teaching improvement.)

Instructions: This questionnaire collects study hours in regular teaching weeks, including in-class instruction, preview, review, homework, lab reports, exam preparation, literature research and all other learning activities. One ECTS credit corresponds to 25-30 total study hours (in-class plus self-study hours). Unless marked as multiple-choice, all questions are single-choice.

Part I: Basic Information

1. Grade: A. Freshman B. Sophomore C. Junior D. Senior
2. Total credits enrolled in the current semester: ____
3. Total ECTS credits enrolled in the current semester: ____
4. Grade Point Average (GPA): A. 3.5-4.0 B. 3.0-3.49 C. 2.5-2.99 D. 2.0-2.49 E. Below 2.0

Part II: Time Spent on In-class Learning

5. Weekly in-class hours (theoretical courses + lab courses + curriculum design) in regular teaching weeks: A. ≤20 hours B. 21-25 hours C. 26-30 hours D. ＞30 hours

Part III: Extracurricular Independent-Study Workload (Weekly, from the perspective of one core course)

6. Weekly time spent on preview for this course: A. 0 h B. 0-1 h C. 1-2 h D. ＞2 h
7. Weekly time spent on after-class review and knowledge consolidation for this course: A. 0 h B. 0-1 h C. 1-2 h D. ＞2 h

8. Weekly time spent on homework, exercises, simulation tasks and lab reports: A. 0-1 h B. 1-2 h C. 2-4 h D. ＞4 h
9. Weekly time spent on supplementary learning including textbooks, MOOCs and literature: A. 0 h B. 0-1 h C. 1-2 h D. ＞2 h
10. Total weekly independent-study hours for this course: ____ (Fill in a number)

Part IV: Perceived Overall Semester-level Study Burden

11. Total weekly study hours for all courses in the current semester (in-class plus all extracurricular self-study): A. ＜35 h B. 35-40 h C. 41-45 h D. ＞45 h
12. Deviation of actual extracurricular study time versus the self-study hours specified in the module handbook: A. Significantly lower than the specified value (more than 5 % below) B. Basically consistent (deviation within ±5 %) C. Significantly higher than the specified value (more than 5 % above)
13. Your opinion on the workload of course homework and lab reports: A. Too little, insufficient academic challenge B. Reasonable C. Relatively heavy, high study burden D. Excessively heavy, hard to finish
14. Your behaviours under heavy study burden (multiple-choice allowed): A. Staying up late to finish tasks B. Lowering homework quality C. Procrastinating on assignments D. Giving up some learning tasks E. None of the above
15. Courses bringing the heaviest workload pressure this semester (multiple-choice allowed): A. Circuit Theory B. Analog / Digital Electronic Technology C. Electrical Machinery D. Principles of Automatic Control E. Power System Analysis F. Engineering Electromagnetic Fields G. Others:____

Part V: Teaching Evaluation and Feedback

16. Whether teachers give clear estimated time requirements for homework and lab assignments: A. Very clear B. Relatively clear C. Neutral D. Unclear E. No estimation provided at all
17. Matching degree between course assessment methods (regular assignments, lab work, final exam) and course study workload: A. Fully matched B. Basically matched C. Poorly matched D. Seriously mismatched
18. Measures you suggest to optimize course workload (multiple-choice allowed): A. Adjust ECTS credits of courses B. Reduce the volume of homework and lab reports C. Optimize difficulty of teaching content D. Provide more learning resources and guidance E. Adjust prerequisite-succession relationship of courses F. No adjustment needed
19. Open-ended question: Please put forward your suggestions on curriculum setting and study workload for Electrical Engineering and Automation:

Survey Result Report

Survey Overview

Respondents: Sophomores and Juniors majoring in Electrical Engineering and Automation (ASIIN-accredited), School of Mechanical and Electrical Engineering, Kunming University. 126 questionnaires were distributed; 118 valid responses were collected, yielding a valid response rate of 93.65 %.

I. Sample Basic Profile

1. Grade distribution: 62 sophomores (52.54 %), 56 juniors (47.46 %).
2. Average in-semester enrolled credits: 18.2 credits, equivalent to approximately 27.3 ECTS credits.
3. GPA distribution: 44.07 % at 3.0-3.49; 33.90 % at 2.5-2.99; 16.10 % at 2.0-2.49; 4.24 % above 3.5; 1.69 % below 2.0.

II. Statistics of Study Hours

1. Weekly in-class hours: 57.63 % for 21-25 h; 33.90 % for 26-30 h; 5.93 % for ＞30 h; 2.54 % for ≤20 h.
2. Weekly independent-study hours for a single core course:

- Preview: 64.41 % spend 0-1 h; 27.12 % spend 1-2 h; 8.47 % spend more than 2 h.
- After-class review: 50.85 % spend 0-1 h; 38.14 % spend 1-2 h; 11.01 % spend more than 2 h.
- Homework, simulation and lab reports: 38.98 % spend 1-2 h; 44.92 % spend 2-4 h; 12.71 % spend more than 4 h.

Lab reports and simulation tasks constitute the major consumption of extracurricular time.

3. Total weekly study hours across all courses (in-class plus self-study): 42.37 % for 35-40 h; 38.14 % for 41-45 h; 13.56 % for ＞45 h; 5.93 % for ＜35 h.

III. Workload Deviation and Perceived Burden (Benchmarked against self-study hours in module handbook, threshold: ±5 % deviation)

1. Deviation of extracurricular self-study hours:

- Basically consistent with specification (within ±5 % deviation): 47 respondents (39.83 %).
- Significantly higher than specification (more than 5 % above): 63 respondents (53.39 %).
- Significantly lower than specification (more than 5 % below): 8 respondents (6.78 %).

2. Subjective evaluation of course workload:

- Reasonable workload: 41 respondents (34.75 %).
- Relatively heavy with high burden: 67 respondents (56.78 %).
- Excessively heavy and hard to complete: 7 respondents (5.93 %).
- Insufficient workload: 3 respondents (2.54 %).

3. High-voltage courses (ranked by selection rate): Electrical Machinery (72.03 %), Power System Analysis (61.86 %), Principles of Automatic Control (55.93 %), Engineering Electromagnetic Fields (48.31 %).
4. Behaviours under heavy burden (multiple-choice): staying up late for tasks (62.71 %), deteriorated homework quality (54.24 %), assignment procrastination (44.07 %).

IV. Teaching Feedback

1. Only 32.20 % of students consider that teachers provide clear estimated time for homework and lab assignments; 67.80 % report vague or missing time estimation.
2. Matching between assessment and workload: 38.98 % report basic match; 52.54 % report poor match; 8.48 % report serious mismatch.
3. Optimisation measures expected by students (multiple-choice): reduce volume of homework and lab reports (68.64 %); optimise difficulty gradient of teaching content (59.32 %); provide more supporting learning resources (50.85 %); adjust course ECTS credits (44.07 %); adjust prerequisite-succession sequence of courses (38.98 %).

V. Conclusions and Teaching Improvement Recommendations (in accordance with *Administrative Measures for Monitoring Independent-Study Workload*

of Students, School of Mechanical and Electrical Engineering)

1. More than half of respondents (53.39 %) have actual extracurricular self-study time exceeding the value specified in module handbooks by over 5 %, with the proportion higher than 10 %. Per institutional regulations, keep total course credits unchanged in the first place, prioritise optimisation of teaching content, exercises and lab assignments, and improve time estimation for learning tasks. Keep continuous observation over multi-year data. If this situation persists for three consecutive years, initiate the procedure for adjusting course ECTS credits.
2. Electrical Machinery, Power System Analysis and Principles of Automatic Control are high-burden core courses. Corresponding course groups shall optimise lab reports and simulation tasks, and specify estimated time consumption for each assignment.
3. Teachers shall explicitly state the expected study hours for homework and lab tasks at the beginning of each course, and improve formative assessment.
4. In line with Kunming University's comprehensive credit-system reform, academic advisors shall guide students to reasonably plan semester-level credit enrolment. The upper limit is 30 credits per semester for regular students and 38 credits for those taking minor programmes, to avoid excessive overall workload caused by over-enrolment.