

School of Computer Science and Engineering

Workload Formula

April 2024

This workload formula is developed with reference to the UNSW (Academic Staff) Enterprise Agreement 2023 ("the Agreement") and applies to all teaching and research staff and all education focused staff ("staff") in the School of Computer Science and Engineering ("the school"). For the sake of clarity in this document, a staff member is defined to be *education focused* if they are: (i) an education focused employee, or (ii) a teaching and research staff member undertaking a predominantly education focused role for a defined period, as allowed under Schedule 3(c) of the Agreement.

A full workload (expressed as 100%) for a full-time employee is 1610 hours per year. Calculations in the workload formula apply pro-rata to fractional-time staff. Staff seconded to other organizations or work units in the university are typically treated as fractional-time staff, however there may be exceptions to this depending on the nature of the secondment.

Academic work is divided into teaching, teaching-related activities, research and leadership/service. Teaching-related activities encompass (Clause 23.3(g)):

- (i) pedagogical innovation, discipline related education research and scholarship; and/or
- (ii) professional development of teaching, educational technologies and related skills.

Teaching and research staff without research fellowships are expected to allocate their time as follows (except that fully externally funded chairs have a teaching load of 20%):

- Teaching – 40%;
- Research – 40%;
- Leadership/Service – 20%.

Education focused staff are expected to allocate their time as follows, with a teaching-related activities component of 20% requested by the employee and agreed by their supervisor during professional development meetings (or else this 20% is devoted to more teaching):

- Teaching – 60%;
- Teaching-related activities – 20%;
- Leadership/Service – 20%.

Teaching

Teaching encompasses course preparation, lecturing, tutorials, lab demonstrations, marking and coursework thesis/project supervision. Each course offering is allocated to one Academic in Charge (convenor) who takes responsibility for academic quality standards and general course administration and who is often the main course lecturer. It is therefore convenient to define the workload for the convenor/lecturer of a single course.

Roughly, each teaching and research staff member is expected to convene/lecture one course per term in two terms a year, and each education focused staff member one course per term in three terms a year, though workloads will vary according to course sharing, course size and course type. Staff teaching smaller courses may need to take more tutorials or labs, or supervise more coursework students, to reach their expected teaching workload. Additionally, education focused staff may teach more in some terms to leave time free of teaching in other terms for teaching-related activities or research.

1. Lecture-Based Courses

The load assigned to a convenor/lecturer for a course of size at least 50 is $238 + 10N$ hours, where N is the number of students enrolled in the course at the end of term divided by 50, rounded up to the nearest integer. That is, the load for a course of size 51–100 is 258 hours, and the load increases by 10 hours for each additional 50 students. For small courses (less than 50 students), the load is 168 hours for the first 10 students, increasing in increments of 20 hours for each additional 10 students. There is no guarantee that small courses will be offered, however they may be taught by staff outside their allocated load.

Table 1 shows the convenor/lecturer workload in hours for a single course, with breakdown below for courses of size 50 or above. Where a lecturer contributes more than one third of the teaching (b)–(f) to a course with a convenor in another school, that proportion of the convenor load (a) is added in recognition of the additional course coordination required.

(a) *Academic in Charge* – $10 + N$ hours

This includes term planning, deciding on requests for enrolment, course equivalence, equitable learning and special consideration (including supplementary exams), approving the selection of tutors/demonstrators, finalizing marks and grades, and deciding plagiarism cases, grievance cases and marks reviews.

(b) *Course coordination and update* – $20 + N$ hours

This work includes updating the syllabus, course outline, tutorials, labs and online materials, selecting tutors/demonstrators, coordinating with lecturer(s) of other streams, and coordinating tutors/demonstrators/markers (including convening regular meetings).

(c) *Course administration* – $30 + 3N$ hours

This work includes setting up systems for administration, marking, marks finalization and plagiarism detection and the course forum, checking and updating lab software, updating tutor notes and sample solutions for tutorials/labs, responding to tutor e-mail throughout term, setting up assignment submission, coordinating and moderating assignment and exam marking, handling special cases of assignment submissions/marking, processing special considerations and disability adjustments, entering marks, testing, gathering evidence and discussing plagiarism cases, responding to student enquiries about marking schemes and feedback, and gathering material for grievance cases and marks reviews.

(d) *Consultation* – $10 + 5N$ hours

Consultation includes office appointments, moderation of the course forum, responding to student e-mail, and assignment consultations. Much of the additional work required for large classes (compared to small classes) consists of responding to forum questions from students.

(e) *Lectures* – 108 hours

A lecture-based course is presumed to have 36 lectures, 4 lectures per week in 9 weeks of a 10-week term. Consistent with Schedule 2 of the Agreement, each lecture hour involves two hours of associated work.

(f) *Assessment* – 60 hours

This includes setting assignments and developing model solutions, auto-marking scripts and/or marking rubrics, and marks moderation (30 hours), and setting and marking examinations (30 hours), with assistance to be provided for additional hours of work.

The loads (b)–(f) are multiplied by 1.3 for teaching a course (or part course) with minor revision, by 1.5 for substantial revision, and by 2 for new material designed completely from scratch. Teaching an existing course for the first time also likely involves a small loading.

2. Project-Based Courses

Project-based courses, including also courses with lectures and a major project component, require students to design and implement a software/hardware project and/or complete a series of hardware lab exercises under the supervision and guidance of a mentor. While such courses often have fewer lectures than a lecture-based course, the time and effort preparing project specifications and supervising groups is deemed to compensate. Further, despite often having no final examination, project-based courses have comparable assessment to lecture-based courses, in that projects are assessed at multiple stages throughout term, and there is a major assessable final software/hardware product, demonstration, presentation and/or report in place of an examination. For these reasons, a project-based course is allocated the same workload as a lecture-based course, assuming that the convenor/lecturer does final project assessment, approximating the time allocated for examinations. In other circumstances, courses that primarily involve project supervision are accounted for by the hour.

3. Convenor/Lecturer Loads

Staff teaching loads are measured for periods of one academic year. A full-time teaching and research staff member is expected to spend 644 hours (0.40 FTE) on teaching over the course of a year, normally 322 hours (0.20 FTE) per term in each of two terms a year. Full-time education focused staff are expected to spend (at least) 966 hours (0.60 FTE) on teaching over the course of a year, which is typically made up of 322 hours (0.20 FTE) for one course in each of three terms. However, staff may, by arrangement with the Deputy Head of School (Education), spread their teaching workload flexibly across any number of terms (including summer), or have a greater load in one term and a lesser load in another. Staff who are substantially over/under-loaded with teaching in one year may expect a consequent adjustment in teaching for the following year (Clauses 23.3(k) and 23.3(m)).

A standard course workload, on the basis that a single staff member convenes and lectures an entire course, fulfilling the duties listed in (a)–(f), and similarly for project-based courses, designs and does the final project assessment, reaches the expected full time load of 0.20 FTE (rounded from 318 hours) for a course of size 351, as shown in Table 1 (highlighted). Staff teaching larger courses in one term may share courses or teach smaller courses or online courses in other terms so as not to exceed the overall expected teaching workload.

Where a staff member’s teaching load is higher than the required amount (40% for teaching and research staff, typically 60% for education focused staff, less reductions for high amounts of leadership/service – see below), admin support can be requested to cover the excess hours.

Table 1: Convenor/Lecturer Workload (Hours) per Course

Size	1– 10	11– 20	21– 30	31– 40								
Load	168	188	208	228								
Size	41– 50	51– 100	101– 150	151– 200	201– 250	251– 300	301– 350	351– 400	401– 450	451– 500	501– 550	551– 600
Load	248	258	268	278	288	298	308	318	328	338	348	358
Size	601– 650	651– 700	701– 750	751– 800	801– 850	851– 900	901– 950	951– 1000	1001– 1050	1051– 1100	1101– 1150	1151– 1200
Load	368	378	388	398	408	418	428	438	448	458	468	478

4. Online Teaching

An online course is typically part of a UNSW Online or Cyber Security Masters program with courses run over a 6 week "hexamester". An online Masters course is not equivalent to a standard lecture-based or project-based CSE course, as student workload is 90–120 hours compared to 150 hours for a CSE course, and online courses typically have no prerequisites. This means that all online courses are essentially new courses.

Each course offering is supervised by an Academic in Charge (convenor) who oversees the course and takes responsibility for academic quality standards and general course administration. For lecture-based courses, the lecturer (often the same as the convenor) may make use of pre-prepared videos that give a course welcome and an outline of weekly activities. Development of this material is outside the scope of this workload formula. The lecturer typically gives weekly webinars to explain the course material. An online course typically also involves smaller online tut-labs in "streams" of around either 24 or 30 students, with associated work for tutorials consistent with Schedule 2 of the Agreement. Each tutor also contributes to student consultation (moderating a course forum and answering e-mail), troubleshooting technical problems, coordinating with other tutors and the course convenor and lecturer, and marking assignments and exams. If a convenor or lecturer also acts as a tutor, the tutor load is counted towards their total course workload.

Due to differing amounts of pre-prepared material, the number of lectures per week and the duration of tut-labs vary from course to course. As with CSE courses, the aggregated calculation below combines the loads for the convenor (a) and lecturer (b)–(e). Where a lecturer contributes more than one third of the teaching (b)–(e) to a course with a convenor in another school, that proportion of the convenor load (a) is added in recognition of the additional course coordination required.

The load assigned to the convenor/lecturer for a lecture-based online course with at least one full stream is $90 + 18L + 5S$ hours, where L is the number of lecture hours per week and S is the number of streams in the course. The basis for this calculation is given below. For small courses (with only one stream), the course administration load (c) and the tutor hours are scaled down by the ratio of the course enrolment to the maximum stream size.

- (a) *Academic in Charge* – $10 + S$ hours
- (b) *Course coordination and update* – $20 + S$ hours
- (c) *Course administration* – $40 + 3S$ hours
- (d) *Lectures* – $18L$ hours
- (e) *Assessment* – 20 hours

The load for each tutor depends on the number of tutorial and demonstration hours for each stream each week, which for a UNSW Online course is typically 2 hours (1 hour tutorial plus 1 hour lab, with 3 hours of extra consultation) or 3 hours (2 hours tutorial plus 1 hour lab, with 2 hours of extra consultation), and for a Cyber Security Masters course is 3 hours (2 hours tutorial plus 1 hour lab, with 2 hours of extra consultation). Thus if a tutor takes N streams, the total tutor workload is typically $12 + 36N$ hours or $18 + 42N$ hours (the latter for all Cyber Security Masters courses). This total includes a weekly 1-hour tutor meeting as additional preparation time for the tut-labs, which is deducted if the lecturer takes all tut-labs.

Courses that primarily involve project supervision are accounted for by the hour.

5. Tutorials, Seminars and Practical Classes

Workload allocated to lecturers undertaking tutorials, seminars and practical classes are in line with Schedule 2 of the Agreement. That is, each new tutorial/seminar hour is given 2 hours of associated working time, each repeat tutorial/seminar hour is given 1 hour of associated working time, and each hour for a practical class is assigned only the 1 hour for class delivery. However, practical classes may require additional workload hours, such as for preparation and communication with students. **Note that a class held in a laboratory can be a tutorial or practical class depending on the nature of the work (Clause 18.1).**

6. Coursework Project Supervision

An undergraduate/Honours thesis consists of three courses (Thesis A, B and C). Postgraduate coursework students may undertake a research project (Research Project A, B and C). For each such course, the supervisor load is 10 hours per student or team (where a group of students work together on a common project). Undergraduate special projects count as either 10 hours (Special Project A – 6 units) or 20 hours (Special Project B – 12 units). There is a cap of 4 thesis or research project students/teams at any one time. Supervision of a capstone project is counted as 10 hours per team for a one term project, with a cap of 4 teams per term.

7. VIP Supervision

Vertically Integrated Projects (VIPs) are year-long team-based undergraduate student projects that are intended to be supervised by research associates/fellows and/or higher degree research students, with oversight provided by an academic staff member. The workload allocated for the academic staff member is 30 minutes per team (of size 3–5) per week for 45 weeks of the year, with a multiplier of 1.3 for the first year as an "establishment cost". The supervision load is split by agreement between the CSE academics involved.

Leadership/Service

A full-time staff member, whether teaching and research or education focused, is expected to spend 322 hours (0.20 FTE) on leadership/service per year, pro rata for fractional-time staff (research fellowship holders are an exception – see below). Leadership/service encompasses school/university commitments, school/faculty management and professional service. As a general principle, the allocation of school/faculty management roles should be made with the aim of sharing the load equitably amongst staff members.

(a) *School/university commitments* (5%)

This includes school/faculty/education/research committee meetings, graduations, prize ceremonies, info/open/planning days, visitor hosting, interview/promotions panels, reading university policies and procedures, learning university software and systems, university training modules and surveys, staff induction, training and mentoring new staff, coursework thesis assessment, research student review panels and annual performance reviews.

(b) *School/faculty management* (at least 5%)

This includes the various required school/faculty management roles and university committee membership.

(c) *Professional service* (5–10%)

This includes conference/journal/grant/project/centre/hub reviews/committees/boards/expert panels, conference/workshop organization, advisory board and professional society/peak body work, research thesis examinations, etc.

Staff are expected to regulate their contribution to professional service so that their overall leadership/service load is 20%. That is, staff whose combined load from school/university commitments and school/faculty management does not reach 20% are expected to contribute the shortfall in load to professional service, while staff taking on a 10% or higher school or faculty management role are deemed to limit their contribution to professional service to 5%. All staff except fellowship holders are expected to contribute to school/faculty management.

Table 2 shows the full year FTE loads for the major school management roles. As far as practicable, loads should be distributed between staff members either by splitting the required work into different functions, or by sharing the volume of work over different time periods, so that individuals do not have a load above 0.10 FTE. A deputy position for some of the larger roles may be created to formalize this contribution. A position description for each role will be developed and maintained and the allotted loads will be reassessed periodically.

Staff whose total leadership/service workload exceeds 20% (for full-time staff, those with a full school/faculty management role, or share of such a role, with load greater than 0.10 FTE) receive a reduction in teaching by the amount of the excess (for full-time staff, their school/faculty management load, less 0.10). This applies to fractional-time staff after their FTE load is converted into a percentage of time worked in the school.

Overriding this, full-time staff contributed in-kind to organizations external to the university in which UNSW has a formal participation agreement (such as CRCs but excluding research and industrial training hubs/centres), in roles that require significant management duties, receive a discount of 1/6 of their teaching load (from 0.40 FTE to 0.33 FTE) if that contribution is at least 0.50 FTE, 1/3 of their teaching load if that contribution is at least 0.60 FTE (from 0.40 FTE to 0.27 FTE), and 1/2 of their teaching load (from 0.40 FTE to 0.20 FTE) if that contribution is at least 0.70 FTE, with no allowance for school management.

Table 2: Workload (FTE) for Major School Management Roles

School Management Role	Load
Head of School	0.80
Deputy Head of School (Education)	0.30
Associate Head of School (Education)	0.30
Director (Education)	0.20
Deputy Head of School (Research)	0.10
Associate Head of School (Research)	0.10
Director (Research and Innovation)	0.20
Associate Head of School (External Engagement)	0.30
Director of Studies (Undergraduate Comp Sci)	0.30
Director of Studies (Undergraduate Comp Sci Hons/Advanced)	0.10
Director of Studies (Undergraduate BINF)	0.10
Director of Studies (Undergraduate COMPENG)	0.10
Director of Studies (Undergraduate SENG)	0.10
Undergraduate Thesis Coordinator	0.10
Director of Studies (Postgraduate Coursework)	0.30
Director (Online Education)	0.20
Program Director (Cyber Security Masters)	0.15
Postgraduate Coordinator (Admissions and Scholarships)	0.15
Postgraduate Coordinator (Candidature)	0.15

Special Studies Program/Internal Release

A staff member may be approved to take one–two terms or 3–6 months of SSP/Internal Release. Staff normally take SSP/Internal Release over one term in which they would otherwise be teaching (Clause 23.5(c)). A teaching and research staff member will be deemed to have met the full teaching workload for one term (322 hours); an education focused staff member for the whole period of SSP/Internal Release (at 322 hours per 15 week period). Staff will be deemed to have contributed 20% leadership/service load for the full period of the SSP/Internal Release.

Workload Allocation, Monitoring and Review

A subcommittee of the Education Committee, chaired by the Director (Education) and comprising at least the Deputy and Associate Heads of School (Education), will be responsible for workload allocation, monitoring and review in accordance with this workload formula. The committee will consider the allocation of teaching and school management roles with the aim of balancing workloads, both for individuals across successive years (Clauses 23.3(k) and 23.3(m)), and between individuals in the school in the same year (Clause 23.3(d)). As part of this process, the committee will consider whether the position descriptions for the school management roles shown in Table 2 need to be revised as student numbers and the nature of the work change, and update the allotted loads accordingly. The committee is also responsible for monitoring individual workloads and more generally the application of the workload formula, for recommending changes to the workload formula, and for providing advice to the Education Committee on planning of future course offerings.

To support the fair and transparent allocation of work, any staff member will at any time be able to view the breakdown of their teaching workload calculation according to this formula, alongside the similar breakdown of any other individual staff member, in accordance with Clause 23.3(d)(iv) of the Agreement, and may request a review of their workload, initially via this committee, in accordance with Clause 23.3(o) of the Agreement.

Special Provisions

1. Early Career Academics

Early career academics, defined as Level A–C staff within 7 years after their PhD graduation, with a teaching and research position (though not a research fellowship), receive a reduction in teaching load of 20% for **the first 2 years after taking up their first continuing or fixed-term academic appointment**. Such teaching and research staff allocate time as follows:

- Teaching – 32%;
- Research – 48%;
- Leadership/Service – 20%.

Education focused early career academics may conduct discipline research with the prior approval of the Head of School. Education focused early career academics conducting any type of research receive a 20% reduction in teaching load for **the first 2 years after taking up their first continuing or fixed-term academic appointment**, so allocate time as follows:

- Teaching – 48%;
- Teaching-related activities – 12–32%;
- Discipline research – Up to 20% (by agreement with the Head of School);
- Leadership/Service – 20%.

2. New Staff

Staff new to lecturing in the school, and former casual lecturers starting permanent or fixed-term employment undertaking the UNSW Teaching Accelerator Program or the Foundations of University Learning and Teaching Program or equivalent, receive a reduction in teaching load of 10% for their first year of course teaching, except for early career academics who receive the 20% reductions described above, in recognition that performing teaching duties takes much longer initially due to the number and complexity of rules, policies, procedures and systems supporting teaching in the school and the university. This means new teaching and research staff in their first year of employment are expected to allocate time as follows:

- Teaching – 36% (notionally 40%);
- Research – 40%;
- Leadership/Service – 20%.

New education focused staff (other than early career academics) in their first year of employment are expected to allocate time as follows:

- Teaching – 54% (notionally 60%)
- Teaching-related activities – 20%;
- Leadership/Service – 20%.

3. Research Fellowship Holders

Research fellowships typically support the fellowship holder to allocate 80% of their time to research activities related to the award. To provide sufficient time for this, a fellowship holder should not hold a school management role with a load over 10%. Otherwise, a fellowship holder is expected to contribute 5% to school/university commitments including school management roles, while professional service activities are subsumed under research activities covered by the fellowship. The remaining time is expected to be contributed to teaching. On this basis, research fellowship holders allocate time as follows:

- Research activities – 80%;
- Teaching – 10–15%;
- Leadership/Service – 5–10%.

Notes: 1. Reductions in teaching loads expressed in fractional terms in policy documents do not compound when multiple fellowships are held. 2. For the purposes of this document, the Scientia Program (though not the title of Scientia Professor) counts as a research fellowship, however is subject to different rules (specifically a maximum 20% teaching load), and no reduction in teaching load applies while undertaking management roles. 3. School funded postdoctoral researchers allocated to a fellowship holder are required to adopt a full 40% teaching load, in addition to the teaching load of the fellowship holder. 4. Fellowship holders seconded to other organizations or work units in the university are considered on a case-by-case basis, however where the secondment is primarily for a research and/or research management role that can be subsumed under the fellowship (including the Scientia Program), no reduction in teaching load will apply in virtue of the secondment.

4. Special Events

A staff member wishing to take on major professional service activities (such as conference organization) must apply to the Head of School in advance of making any commitments in order to receive a compensatory reduction in teaching and/or leadership/service load.