University of Glasgow

Academic Standards Committee – Friday 26 November 2021

Response to Recommendations Arising from Periodic Subject Review of the School of Computing Science held on 4 and 5 March 2020

Thematic activity: strategy for development

Recommendation 1

Graduate Teaching Assistants (GTA)
The Panel **strongly recommends** the School develops more formal mechanisms to ensure School oversight of GTA workloads and their wider activities including support and development needs.

Ref: Section 3, para 3.1.5

Shared enhancement benefits
School oversight will create parity of experience for the GTAs and will provide the School with an opportunity to monitor workflows and progress against staff development requirements for GTA.

For action: Academic Tutor Liaison

Response: A GTA Working Group was established in January 2020 with broad cross-representation including senior academics, administrative representation and four GTA representatives with, first, a commitment to understanding tutors' concerns and other identified challenges, and thereafter developing robust quality control processes around recruitment, continuation, tutor support, lab allocations, and effective communications. The Working Group met on 20 occasions between January and November 2020 and is supported by a dedicated MS Team. Several critical improvements have been introduced.

In 2020, we implemented (i) a formal application process (through Moodle) and a short interview by two members of the Working Group, (ii) a mandatory (paid) annual one-day induction held in week one which supplements the statutory UofG GTA Introduction to Learning and Teaching in Higher Education training, (iii) weekly in depth tutor instructions issued by the academic course coordinator, and (iv) developed our GTA Guide (handbook) which provides important information and advice. These activities support quality control and effective communications, together with an improvement in our allocation and distribution of workload. All new and continuing GTAs were again interviewed during August 2021 and we plan to adopt a performance-based approach for next year. Further enhancements adopted in 2021 include (i) streamlined grades associated with our different GTA roles to achieve greater efficiencies and parity, and (ii) systematic capture of feedback from tutors on labs which will provide important information for Staff-Student Liaison Committees and enable identification of any GTAs in need of development support. Alongside this, we are exploring demand for optional shadowing to allow tutors and demonstrators to shadow or be shadowed by an experienced tutor and are in the early stages of researching a possible 10-credit course in CS education for tutors which would act as a subject-specific replacement for the centrally mandated GTA training. The Working Group will persist with a semi-regular meeting frequency and continue to use the MS Team to respond agilely to any issues that emerge.

Recommendation 2

Leadership and Management Training
It is **recommended** that the School works with University Staff development services to ensure leadership and management training opportunities are made available to staff in new roles as part of the restructuring. Bespoke training for academic related matters should be developed in collaboration with LEADS.

Ref: Section 3, para 3.1.3

Shared enhancement benefits
The success of the new divisional line management structure will be maximised if appropriate leadership and management training is provided for individuals who are new to these roles and responsibilities. Individuals will feel supported and more confident. Working collaboratively with central services will broaden the knowledge across professional services of the unique requirements of the School and its subject.

For action: Head of School, Director of Learning & Teaching, Head of School Administration
For information: Head of HR (CoSE), Director of Employee and Organisational Development, Deputy Director ADD

Response: The School Executive has developed a longlist of nominees for University Strategic and Future Leaders programmes, securing one place on each in 2020-21 and 2021-22. In addition, we have committed budget for three places annually on the Aurora programme (four participants confirmed for 2021-22, including one College supported nominee) and provide support for other Section Head-nominated external development opportunities identified for staff through Performance & Development Review. Opportunities for management training are distributed broadly to relevant role holders.

Following extensive discussion with College HR, we ran a two-hour academic management workshop on 22 June 2021 for members of our School leadership, facilitated by Dr David Fraser, which had two key themes: part 1 involved a comparative discussion of School structures supported by presentations from senior colleagues in Engineering and Physics & Astronomy; part two focussed on challenges in academic management. This format worked well and identified key questions on our School structure which we continue to deliberate upon in appropriate fora, including monthly meetings between the HoS and Section Heads and at bi-monthly one-to-one discussions. We will organise a follow-up workshop next year to evaluate changes we have made to our management approaches, especially the balance between central allocation of teaching and administration, and delegated responsibility to Section Heads.

Recommendation 3

Early Career Research (ECR)
It is **recommended** that the School continues to work collaboratively with colleagues in LEADS to ensure the schedule for mandatory PGCAP development is achievable for ECRs.

Ref: Section, 3 para 3.1.6

Shared enhancement benefits
This should provide LEADS with an opportunity to raise awareness of its support within the School and working collaboratively should provide an opportunity for both to reflect on the programme content and the timetable.

For action: Director of Learning & Teaching
For information: Deputy Director, ADD

Response: The prevalent timetable for PgCAP continues to present an obstacle for many ECRs and has been exacerbated by high SSRs and the pivot to online and subsequently

hybrid teaching methods.   Members of our Executive had an extensive and informative discussion with the PgCAP Programme Lead, Michael McEwan, on 21 October 2021 during which we discussed staff perceptions, the course content, its flexibility, adherence with general taught postgraduate regulations and HEI sector standards.

Key outcomes of the discussion include (i) LEADS will create a list of on-course FAQs for participants to manage expectations and emphasise the flexibility and processes around summative assessment, as well as options for adjusting programme duration and credits taken each year, where required; (ii) the School will identify a year 1 SSLC PgCAP rep from amongst its participating staff to facilitate improved communications and understanding; (iii) a Teams channel for each year group will be considered to facilitate peer support and discussion and (iv) the allocation for PgCAP in our work allocation model will be revised to 20% in year 1 and 10% year 2 (originally split equally) to better represent the predominant programme timetable, with adjustments made based on any agreed deviations.   Prior to this, we had also undertook to extend the reduction in teaching hours in Year 3 in our work allocation model for those who have not yet completed the programme.

Recommendation 4

Laboratory Space
The School is **encouraged** to speak to central University IT services to develop an approach to monitor the use of laboratories. This should help them build on the innovative use of the laboratory space already undertaken.

Ref: Section 3, para 3.1.2

Shared enhancement benefits
Working collaboratively with central IT services will provide professional services with an opportunity to broaden their understanding of the use of university resources. It will also broaden knowledge regarding the use of space to inform the wider university Estates strategy and potentially the smart campus developments.

For action: Head of School, Head of School Administration, Systems Manager (Operations and Staffing)
For information: Director of IT Services, Director of Estates and Commercial Services

---

Response: The pandemic and the pivot to online teaching suspended pressure on physical lab space and is mitigated by alternate weekly on campus labs for most courses in Semester 1 of 2021-22. This remains an acute concern, however, as we endeavour to resume a normal on campus lab schedule from Semester 2 and we are cognisant that practical work is optimally delivered in a physical environment.

Pre-pandemic we received approval of our Data Protection Impact Assessment (DPIA) for the utilisation of Bluetooth sensors which were installed late 2019 and we plan to reactivate this project early 2022 when physical distancing restrictions are removed in teaching environments.

During the pandemic the School was able to make use of the *Glasgow Anywhere virtual desktop*, developed by IT services along with staff from the College, to allow students working remotely access to a teaching environment to undertake practical work which would previously be done in the laboratories. Supported by *Glasgow Anywhere*, and subject to its continued availability to provision students working elsewhere on campus, or even from outside of the campus, we expect some dependency on access to alternative, larger facilities such as those in the James McCune Smith Learning Hub as necessitated by course sizes and/or timetabling issues.

Recommendation 5

Strategy for Growth
The School is **encouraged** to work in collaboration with External Relations to develop a tailored market analysis to inform its strategy for growth.

Ref: Section 3, para 3.1.7

Shared enhancement benefits
This should provide the School and ER with a full understanding of the ambition and scope for increasing student numbers which will inform any recruitment and marketing strategy required to support this objective.

For action: Head of School, Head of School Administration
For information: Head of External Relations, Head of College

Response: Student numbers (UG and PGT) have continued to grow rapidly with intake controls at undergraduate Level 1 repeatedly breached, higher UG progression, and an extraordinary January 2021 intake which exceeded central optimistic predictions exacerbating already challenging SSRs. Our focus over the last 18 months has been twofold (i) priority academic recruitment to achieve an SSR of 18 and (ii) the implementation of a five-stage competitive PGT application process to achieve a controlled intake and improve student quality, and geographic and cultural diversity. Broadly, this has been successful in both areas. Our academic recruitment rounds, while intensive, have been successful and we have 14.4 FTE new appointments joining the School between September 2021 and March 2022; five positions are at interview and we have three, as yet unfilled, vacancies. Our controlled intake brought in fewer PGT students than predicted based on conversion metrics, partly due to continued issues in relation to the pandemic, but is mitigated by markedly improved international undergraduate growth which is a positive development. The impact of the extraordinary January PGT intake continues to have a deep and pervasive impact on our operations though we are confident that workloads will improve from Semester 2, with our SSRs normalising in 2022-23 subject to successful conclusion of our academic recruitment rounds and control over planned student growth. The latter remains a highly contentious area and more work is needed to align the School's strategic planning with centrally managed offer making and decisions.

Our research into online MSc delivery has thus far not provided evidence that developing provision in this area would provide conclusive benefits, but we continue to explore this, alongside the potential for undergraduate international growth through partnership development. The University's Memorandum of Understanding, formalised in July 2021, with Zhejiang University presents a good opportunity for quality international student growth which we are keen to explore. In the interim, we are developing two MOOCs that complement our research interests and expertise which will be delivered on the Coursera platform enabling broad international reach, and potential for reputational enhancement. UofG retains 50% of income generation.

With some market demands and student appetites changing in response to the pandemic, we expect to request updated market analysis from External Relations to inform further strategic growth, when appropriate. We know that our programmes, UG and PGT, remain in high demand. Notwithstanding this, the principal barrier to growth is University-provided resources, especially space, and it is critical that growth in student numbers is not imposed on us without providing corresponding resources.

Recommendation 6

Workload Allocation Model (WAM)
The new Academic Work Allocation Model (WAM) should include time for sharing best practice and assessment. The School is **encouraged** to collaborate with University Planning, Insights and Analysis to maximising knowledge & resources.

Ref: Section 3, para 3.1.4

Shared enhancement benefits
Refining the WAM will create more transparency across the School. Collaboration with College and central services will provide an opportunity to share unique insight into the subject knowledge and align resource models where appropriate.

For action: Head of School, Deputy Head of School, Director of Learning & Teaching, Head of School Administration
For information: Director of Planning, Insights and Analysis

Response: The School's work allocation model (WAM) was first used in 2020-21 and has had a positive reception. It was informed by a review of several institutional models across the sector. The model was developed to ensure a fair work allocation and not to keep track of the activities of each individual. Transparency is ensured by publishing the model and the process used for allocation, together with the allocation of teaching and administration tasks each year. It considers staffing categories, i.e. R&T, LTS and ECR and includes baseline allocations for *'research, knowledge exchange and impact'* or '*learning, teaching & scholarship*', as appropriate, with a fixed 10% allocation for all staff to support collegiality and personal development.

The model was implemented at the start of the pandemic, and we have not had a chance to collaborate with University Planning, Insights and Analysis.

Thematic activity: learning teaching enhancement

Recommendation 7

Assessment and Feedback
Aligning assessment to learning outcomes has been an ongoing initiative since the PSR in 2014. However, in considering assessment, students and staff had acknowledged some inconsistency of approach to assessment design particularly in relation to differential workload demands across some courses. Therefore, this area was seen as a priority in the continuing review and development of assessment. The Panel **strongly recommends** the school undertakes this work to ensure consistency and parity of experience for the students. It also **recommends** that they benchmark with other Schools within the College to help inform good practice when looking at developing new assessment models – in particular online assessment methods.

Ref: Section 3, para 3.2.6

Shared enhancement benefits
This will provide clarity for the students as well evidencing parity of experience. CS can demonstrate further alignment to the University Code of Assessment and with the SCQF.

Sharing best practice across the College will provide an opportunity to promote good practice in CS and will provide the School with an opportunity to discuss and pilot models used by colleagues in other Schools. The College can evidence to the University their strategic commitment to enhancement.

For action: Head of School, Director of Learning & Teaching
For information: Head of College

Response: The pivot to online teaching in March 2020, extraordinary Summer block teaching and exams, following by further changes to support hybrid teaching approaches has impeded review and development of assessment approaches and design.

Once workloads stabilise we plan to accelerate expansion of accessible and inclusive assessment within the School. This includes convening a working group to reduce and remove high-stake assessments through exploration of rigorous programme-level assessments, coupled with a portfolio of course-level assessments that are lower-stake and balanced between online and on-campus opportunities. The expectation is such an approach would afford collective agreement between academic staff of programme aims, while also providing greater flexibility and autonomy at course-level for academics to introduce more diverse, engaging, accessible and inclusive assessments.

Recommendation 8

Singapore Institute of Technology (SIT)
The Panel **strongly recommends** the School seeks clarity with the University Academic Collaborations office regarding the new agreement with SIT.

Ref: Section 2, para 3.2.11

Shared enhancement benefits
Clarity will provide the School with the necessary information to allow them to manage strategic planning, budget and resources and for the University to continue to develop the strategic partnership with SIT. Ownership of the Agreement will reduce institutional governance risks associated with monitoring and evaluation.

Working with colleagues in Academic Collaborations Office (ACO) should provide CS with a broader understanding of the University governance and provide ACO with an appreciation and clarity regarding the information required by CS and for what purpose.

For action: Head of School, Head of School Administration
For attention: Head of Academic Collaborations Office, Head of College Finance

---

Response: Academic governance and regulation of the UofG-SIT jointly taught and awarded BSc (Hons) Computing Science are those promulgated by Singapore Institute of Technology. We introduced a quarterly meeting between our Computing Science colleagues at University of Glasgow Singapore and our core School Executive in June 2020 and this has provided a productive vehicle through which to ensure continued high visibility and focussed discussion on our joint programme and related developments, shared learning, and effective engagement. A particular issue identified is that many of the joint students only identify as SIT and continued attention is needed to ensure improved student association with Glasgow. To this avail, we engaged in a successful multi-disciplinary Overseas Immersion Programme (OIP) which ran for three weeks over the summer, held by exception in Singapore due to ongoing restrictions, and will explore a plan for more regular guest lectures spaced throughout the 3-year programme as appropriate. There is a one-week block teaching on Safety Critical Systems delivered by a Glasgow academic prior to OIP, which further enhanced the students' association with Glasgow. We continue to explore opportunities for joint research collaboration. Several Singapore grants involving Glasgow academic staff were submitted in 2020-21 to foster greater research collaboration between SIT, Glasgow and UGS, and discussion on a joint research lab between the three partners is currently underway.

Our relationship with UGS colleagues remains strong and staff there have agreed to support several Glasgow MSc projects each as one of the mitigations for our extraordinary project demands this session. Representatives from the School also participate in UGS quarterly meetings (all joint programmes) which cover an array of topics.

> ### *Recommendation 9*
>
> **Annual Curriculum Review**
> Having established this within the annual schedule of activities the Panel **recommends** the School uses the event to create further innovation within the portfolio and to seek opportunities for further TNE activities
>
> Ref: Section 2, para 3.2.4
>
> **Shared enhancement benefits**
> Using space already allocated in the School diary should allow CS to have a more structured agenda taking consideration of longer-term ambitions which would inform the Strategic Planning process.
>
> **For action:** Head of School, Director of Learning & Teaching

Response: While there has been some rationalisation of our curriculum, temporary in some cases, this has primarily been driven by resource availability which has necessitated a reduced number of options available to students in some specialist areas. There has been no capacity to undertake our annual rolling curriculum review, and to consider programme-level innovation, due to the additional workload associated with, first, a pivot to online teaching and subsequently hybrid approaches. This is, however, something we plan to resurrect in Semester 2. As outlined in (5) above, we plan to explore potential for expanding TNE activity supported by the new Memorandum of Understanding with Zhejiang University.

> ### *Recommendation 10*
>
> **Continual Professional Development (CPD)**
> The School should continue to build on the reflective approach taken at the Annual Learning and Teaching away day by ensuring the outcomes are more widely shared across the School and that attendance at the event is recognised formally as CPD.
>
> The School is **encouraged** to seek advice and guidance on CPD recognition from colleagues in Staff Development Services and LEADS.
>
> Ref: Section 3, para 3.2.2
>
> **Shared enhancement benefits**
> Formal CPD recognition should help to raise the profile of the need for academic development.
>
> Working collaboratively with central staff development services and LEADS should help provide a shared understanding across the University of some of the unique subject related work undertaken in the School.
>
> Academic staff can use CPD for professional purposes e.g. promotion and professional membership.
>
> **For action:** Director of Learning & Teaching
> **For information:** Director of Academic Services

Response: Unfortunately, high workloads and summer teaching have precluded our normal annual learning and teaching 'away day'. We do, however, plan to investigate the potential of CPD recognition for future such events, when planned. In the immediate term, we will endeavour to seek credit for our research away day planned at the end of Semester 2 which will act as a model for future recognition.

Recommendation 11

Annual Learning and Teaching Away-Day
The School is **encouraged** to invite the ECRs and GTAs in the Annual Learning and Teaching away day as a way of sharing knowledge and capturing innovation.

Ref: Section 3, para 3.2.2

Shared enhancement benefits
Will provide the ECR and GTAs with a wider School network and allows the School to share ideas and initiatives across the whole community.

For action: Head of School Administration, Director of Learning & Teaching

Response: There has been no teaching 'away day' held in the last 18 months as outlined above. Inherently participation would always include ECRs; however we have approximately 200 GTAs so it is anticipated that participation would be restricted to tutor representatives only.

Notwithstanding this, led and facilitated by our Flexible Learning Coordinator, we had (i) regular flexible learning updates with critical information, tips and advice, (ii) a dedicated MS Team channel was utilised to support colleagues with any questions, (iii) several Zoom workshops reflecting on our remote teaching, shared experience on redesigning courses, flexible learning, and automated assessment, etc, (iv) and lunchtime drop ins with our Flexible Learning Lead. All Zoom workshops were recorded and disseminated for broader consumption. Peer support and knowledge sharing amongst colleagues has been outstanding.

Recommendation 12

Graduate Apprenticeship Programme
The School is commended on development of this programme and positive student experience. The School is **encouraged** to seek support from External Relations to find methods of raising the profile of this programme and promote its added value to the School, College and University reputation.
Ref: Section 3, para 3.2.5

Shared enhancement benefits
Added value to School, College and University will help contribute to further enhance reputation and diversity.

For action: Head of School, Graduate Apprentice Programme Director, Head of School Administration
For information: Head of College, Head of External Relations

Response: In response to the panel's recommendation, a meeting was arranged with the new Director of Marketing and Communications (Tom Rice) and our GA Programme Director (Matt Barr) and the GA Liaison Team (Claire Johnston and Anna Doyle). Also in attendance was the Communications Manager liaison for CoSE (Ross Barker).

The two main outputs of the meeting were: (i) a GA focused article, written by Matt, was included in the Herald on 3 March 2021 to coincide with Scottish Apprenticeship Week and (ii) Tom facilitated stronger support from the Glasgow Chamber of Commerce, enabling Anna and Claire to write a feature for the Summer Magazine, receive ongoing support through the weekly newsletter and benefit from over 20 bespoke introductions to employers within the Glasgow Chamber of Commerce community. Anna and Matt will meet with Tim again shortly to develop plans for promoting the 2022 GA intake.

Thematic activity: the student voice

> *Recommendation 13*
>
> **Student Feedback/Student Voice**
> The significant work undertaken to support the Student Voice /student feedback could be further enhanced and the School is **encouraged** to seek support from External Relations services to help promote this work across the College and University.
> Ref: Section 3, para 3.3.1
>
> **Shared enhancement benefits**
> Sharing across the wider University will raise the profile of CS. Working collaboratively with External Relations will provide an opportunity for them to broaden their knowledge of the institutional need to enhance student experience.
>
> **For action:** Head of School Administration
> **For information:** Director of External Relations

Response: We continue to solicit, value, and respond to student feedback received through formal and informal mechanisms, and evidence suggests that students feel comfortable in raising issues with us. This includes additional feedback initiated last session in response to our pivot to online teaching to ensure that early and responsive interventions could be adopted in our learning and teaching practices to support the student experience. This additional feedback has included using MS Teams to provide the student representatives a direct means of communication with level heads and between representatives across levels. We have also introduced lab demonstrator representatives for our level 1 and 2 courses who attend the staff-student meetings each semester.

We have not yet discussed with External Relations how they might promote this work.

> *Recommendation 14*
>
> **Student Representatives**
> The School is **encouraged** to look at additional methods to promote the training and development provided by the SRC.
> Ref: Section 3, para 3.3.2
>
> **Shared enhancement benefits**
> Further promotion of training and development will hopefully encourage students to see the benefits of volunteering to be representative.
>
> **For action:** Head of School Administration
> **For information:** SRC President

Response: We advocate completion of GUSRC training for class reps, setting out details, meeting schedules and expectations in our undergraduate and postgraduate taught student guides. Class reps are reminded of this expectation on appointment and its necessity to enable their time as a representative to be recognised on their HEAR transcript. From data captured on MyClassReps, it appears that undergraduate compliance, graduate apprenticeship excepted, is high with ~90% engaging in the seminar training in 2020-21. Participation of our graduate apprenticeship class reps is compromised because of the later start of their courses (w/c 1 November and w/c 7 March in 2021-22) and the subsequent lack of available training slots.

This has also impacted PGT participation in 2020-21 due to our exceptional January intake. We have previously asked for additional trainings slots to be made available but without success.

Unfortunately, we have no timely visibility in-year on who has completed the self-study Moodle training and booked on the Zoom seminar, which makes the need for further interventions unclear. Early notification from GUSRC on non-compliance or when MyClass Reps is updated to confirm participation would allow us to consider additional prompts.

Thematic activity: supporting student wellbeing

Recommendation 15

Student Support Officer and Adviser of Studies
The recently introduced role of Student Support Officer (SSO) as part of a pilot project is viewed positively by staff and students however there are concerns regarding the workload and the boundaries between the role and the Adviser of Studies. The Panel **strongly recommends** the School reviews the role descriptor for the Adviser of Studies and makes explicit to students.

Ref: Section 3, para 3.4.2

Shared enhancement benefits
Maximises the use of University professional service support staff and will raise the profile of support services provided.

Provides central professional services and the School with an opportunity to develop shared ownership and understanding of the student experience and the significance this has to the University reputation and status.

For action: Head of School Administration, Head of School, Senior Adviser of Studies
For information: Clerk of Senate

Response: We have sought to clarify the boundary between the role of our Student Support Officer and Adviser of Studies where possible and this is reiterated at class inductions, in our student handbooks and in Staff-Student Liaison Committees. The SSO has a focus on first line support and advice in directing students with personal, welfare of wellbeing issues, enabling our advisers to focus on academic advisee matters. Inevitably, some student cases are complex requiring interventions from the SSO working alongside the academic adviser. Supported by the introduction of our specialist academic advisers in 2020-21 with a MS Team for support, we believe this model is now working successfully and that any early confusion has dissipated.

Indeed, the University has expanded the roll out of SSOs institutionally in response to the success of this initiative.

Recommendation 16

Student Communications
The School is **encouraged** to look at its methods of communication with students and to make more explicit the appropriate route for key information, in particular around assessment deadlines.

Ref: Section 3, para 3.4.4

Shared enhancement benefits
This will provide clarity for the students and a better experience.

The School will have an opportunity to review and streamline its communication process and reduce duplication.

For action: Head of School Administration, Director of Learning & Teaching

---

Response: We outline clearly in our student handbooks and at induction that our primary means of communicating with students is by email. This, unfortunately, is not supported by regular checking of email amongst some in the student community - not limited to our discipline - which necessitates the need to repeat some critical communications through other fora.

With respect to assessment in particular, Course Coordinators provide detailed instructions on the submission of work for their course supported by an assessed coursework template cover page, which summaries critical information including the deadline. All coursework submission is made via the Moodle platform for each course and marks are officially captured thereafter on our bespoke SoCS online system with feedback narrative provided on Moodle. This is a driver for subsequent creation of exam spreadsheets.

In 2021-22 we will begin using the newly developed grade capture and aggregation tool (GCAT) with our first year cohort, with plans to extend this to later years thereafter. We expect this to eliminate any remaining confusion once fully implemented, but will first need to be assured of its reliability in handling more complex datasets. One area of concern that we wish to explore is how Class Heads will monitor the pattern of assessments, and spacing of submission deadlines, across courses in year.