Guidelines for Annual Merit Review

Annual Merit Review is a mandatory institutional process to be conducted annually, and forms the basis for annual salary adjustment. While HKUST has a comprehensive set of guidelines in place, we recognize that these guidelines are aimed for the whole institution and hence they can be vague for any particular department. In this document we wish to formulate a set of guidelines for the annual merit review that is suitable for the Department of Mathematics. In particular we strive to make the process *as transparent and fair as possible*.

The guidelines of HKUST recommend that reviews be based on the cumulative activities in the past three years. We shall follow this recommendation. Of course, it makes more sense to give more weights to the Teaching and Service/Engagement activities in the last two years. Hence the Department of Mathematics Annual Merit Review will be based on the assessment of

- Research in the past *three* years, uniformly weighted.
- Teaching and Service in the past *three* years, with more weights given to the most recent *two* years. For service, even more weight will be given to the *most recent year*.

The guidelines are based on the following four principles:

1. Reinforce the community's impression and our own vision that this is a research department.
2. Encourage faculty members to be committed to good teaching.
3. Motivate faculty members to serve and to engage in the Department, the University and the Community.

During the 2014 departmental Retreat the whole department was onboard with our mantra "***Do what you can, not what you can't.***" It is important to remember that this mantra calls for all of us to contribute in ways that are within our ability. In particular it calls for volunteering to lead and participate in various activities, to engage the department and the institution to make yourself visible, to serve the department and the institution in various capacities, and more. There is no shortage of things here that fall into the category of "*you can do*"; in fact, almost everything that keeps the university a productive and vibrant place for us falls into this category. A question we want everyone of us to ask is: "***Have I done enough***"?

With this in mind we propose a set of guidelines to kick off the discussion. We hope that the collected effort and wisdom of all faculty members shall lead to an improved set of guidelines in the end.

Evaluation Scheme

No evaluation scheme is perfect, as anyone who has ever been involved in annual reviews in an academic institution can atest. The problem is that it is virtually impossible to put a "ranking" on many of the activities that are integral parts of our institutional responsibilities. There is even less agreement among us on what constitute "value" to a department or an institution as a whole. However, with annual evaluation being mandatory, these challenges should not be excuses for not trying to design an evaluation scheme that is fair, transparent, and more or less reflect one's contribution to the department, the institution and the community at large.

In particular, we should strive to have an annual evaluation scheme that ***allows any of us to score very highly if we put in enough effort***. We should acknowledge that not everyone can be a leader in research, or can be a mesmerizing teacher. However, all of us have a proven track record to become an active researcher. All of us can be a conscious teacher who can make up some of our classroom deficiencies through extra preparation, engagement, novel and innovative learning tools, curriculum development, and more. Of course, there is almost no limit to how one can contribute through service and engagement.

I. Research Evaluation (5 points plus bonus points)

Research evaluation is impossible to be completely objective, and it shouldn't be. So here some subjective preferences at both the committee level as well as the Head and Dean's level are completely expected. A healthy system should incorporate a combination of both objective and subjective criteria. We propose to divide the 5 points into "effort" and "result" categories, in a blend of objective and subjective criteria.

Baseline Points for Research (5 points)

Submitted an RGC proposal every year (see Comment R1)	1 point
Have at least one RGC grant awarded in the last three years	1 point
Is research active (see Comment R2)	1 point, can be a fraction
Have given at least three invited talks in international meetings	0.5 point
Research beyond the basic activeness (see Comment R3)	up to 1.5 point

Bonus "high achievement" points in research should be awarded for excellent performance. It will be capped at a maximum of 6 points. The bar will be higher for earning bonus points.

Bonus Points for Research (capped to 6 points maximum)

Have X>1 RGC grants in last three years	X-1 points

Actively mentoring/supervising PG students	up to 1 point
Exceptional publication record	up to 1.5 point
Significant recognitions and other notables (see Comment R4)	up to 2 points

Comments:

R1: For Year 2015 and 2016, this criterion is satisfied if one has had an RGC grant in the last three years, or has written at least two RGC grant proposals.

R2: This is intended as a very low bar, but it does have a little bit subjective elements to it. The interpretation is left to the discretion of the Committee and the Head. But in general having published three papers in SCI journals should be checked as "Active."

R3: This is intended as a reasonably high but not extremely high bar. It should be judged based on strong publication record and as well as other indicators such as actively participating international meetings, giving invited seminar talks. Not everyone will reach this bar, but it should be set so that with significant effort everyone can reach it.

R4: Significant recognitions include ICM speaker, plenary and keynote speaker in major international conferences, named to editorial board of SCI journals, etc. Each of these recognitions should carry bonus points for two years, not indefinitely. Additional bonus points here can also be a "spillover" from the Exceptional Publication Record category.

II. Teaching Evaluation (5 points plus bonus points)

The evaluation of teaching can be as subjective as research. The only "objective" tool that every institution relies on is the student course evaluation. This is far from being perfect. The student evaluations can be skewed by the level of students and the class size, for example. Also, evaluations tend to be higher for graduate classes and special topics. Thus it is important that in the use of student evaluation we take these biases into consideration. Nevertheless, student evaluations have shown to be highly correlated to the *classroom effectiveness* of teaching by many studies, and so far there isn't in fact a better tool for in-class effectiveness than it. So however we feel about the student course evaluation it would be wrong to ignore it.
Still, student course evaluation shouldn't be the sole criterion. There are many other qualities that contribute to the effective education of the students. Showing care for the students by making yourself more approachable is extremely important. Many provide extra material and extra office hours to the students. Some are engaged in serious development of new courses. All these should count in the evaluation.

Baseline Points for Teaching (5 points)

Meeting basic responsibilities (on time, office hour, etc)	1 point
Willingness to teach anything, new course, and be flexible with time	0.5 point
Classroom effectiveness based on student evaluation (see Comment T1)	up to 2.5 points
Extra outside classroom effort (see Comment T2)	up to 1 point

Bonus Points for Teaching (capped to 4 points maximum)

Exceptional classroom effectiveness (see Comment T1)	up to 2 points
Exceptional effort (see Comment T2)	up to 2 points
New course, curriculum and methodology development (see Comment T3)	up to 1 points

Comments:

T1: Classroom effectiveness should be based primarily on course evaluations of undergraduate courses, as course evaluations in PG classes are typically not indicative. Also, the scores should be compared only *relatively*, against historic data for the same course and taking into considerations such as class level and size. There are some truly exceptional performances that even a maximal 2.5 score doesn't do justice. The "Exceptional Classroom Effectiveness" bonus points should be viewed as the "spillover" from the baseline "Classroom Effectiveness".

T2: Extra Effort can mean a lot of things. Holding significantly more extra office hours, significant use of web/blended learning, distribution of lecture notes, compiling a lot of valuable material, teaching extra sessions, engaging students in a substantial way such as supervising projects for a course, etc. It is hard to list them all, but typically there is a general agreement among us what constitutes extra effort. Sometimes there will be effort that is far beyond the normal extra effort. It should be noted and be given bonus points as "spillover" from "Extra Effort".

T3: Here we should be talking mostly about developing new courses for a new initiative, new trend or a novel idea. Judgement should be used to decide whether teaching a graduate special topic course on one's own research should count.

III. Service/Engagement Evaluation (3 points plus bonus points)

No area of our responsibilities reflects our mantra "Do what you can, not what you can't" more than in the area of services and engagement. During the 2015 HKUST Senior Leadership both President Chan and EVPP Shyy had stressed the importance of services and engagement.

Various exit surveys of our students have shown that as an institution we have a lot more work to do to engage our students to provide them with a better educational experience. Our department has fallen behind in various rankings in terms of visibility and ranking, partly due to the lack of engagement to the community. There was a proposal at the Retreat to make Service/Engagement counting more in the annual merit review.

In fact, a willingness to serve and engage is the hallmark of a healthy, vibrant and productive workplace. Our department is not, and shouldn't be, an exception. All of us should realize that it is exactly the willingness of many others to serve selflessly that has made our own research and life more productive and less stressful.

More than anything, service/engagement relies largely on voluntarism and trust. While we may all feel that we are willing to serve, the feeling alone is not enough. We must recognize that trust and track record play a big role in building a strong record in services. If you have not volunteered to serve you have no track record, and you are then less likely to be trusted to do certain services because when one is asked to shoulder responsibilities, there is usually consequences when this responsibilities are not properly carried out. Thus all of us are encouraged to go out to seek and ask for services. There is no shortage of things we can all help with.

Not all services are equal. It is well understood that some are far more time consuming than others. To give just one example, being the lead organizer (the go to person) of an international conference is a major endeavour, and calls for more significant recognition than being on the organizing committee of the same conference but never had to deal with inquiries or to scramble to find ways to accommodate last minute requests. Similarly, the workload is different for being the chair of a major committee to a regular member of a committee that had met only once or twice in a year with no serious action items. So in the end there will be some subjectiveness in the process. It is our hope that we will all come to an agreement that such subjectivity, like in research and teaching, will always exist. But we should strive to be transparent and fair in the process.

Baseline Points for Service/Engagement (3 points)

Attending departmental events with regularity (see Comment S1)	1 point
Participating in 3 or more student engagement activities (see Comment S2)	1 point
Extra basic services/engagements beyond the above	up to 1 point

Bonus Points for Service/Engagement (capped to 6 points maximum)

Major departmental, school and university level services (see Comment S3)	up to 2 points

Main organizer of international conferences on campus (see Comment S4)	up to 3 points
Major outreach activities	up to 2 points
Supervising undergraduate Research (see Comment S5)	1 point/project
Responsible for running major programs	up to 3 points
Hosting at least 4 visitors per year in last two years	1 point
Major society services (see Comment S6)	judgement
Other notable services and "spillovers" (see Comment S7)	judgement

Comments:
First of all, while service will also be evaluated for a 3-year span, more weights will be put on the current year and some on the year before for major services, but only really major services will be considered as "spillover" from the most distant year of the 3-year span.

S1: This is a very low bar. Still it is a very important criterion. A vibrant department needs your presence for meeting with job candidates, coming to our weekly Wine-Cheese-Tea, attending faculty meetings, go to job talks and distinguished lectures/colloquiums, going to lunch/dinner with departmental visitors, checking out job candidate files. Having an active voice in the department is also encouraged.

S2: Each year there are numerous occasions in which faculty members are called on to attend events meeting with students. Examples include Information Day, IRE events, information/orientation session for new PG students, SSCI major recruiting event, track gathering, etc. You will earn this point by participating 3 such events in the current year, or average 3 per year in the past two years.

S3: Chairing a major committee is typically hard work. In the department, the Search/Appointment Committee, the Substantiation/Promotion Committee, the Merit Review Committee are among the major departmental committees. Being a member on a major committee should count. Other committees can also have major workload, and in consultation with the Associate Head and UG/PG Coordinators, such workload will be recognized. Minor committee work should be noted as well, and cumulatively they could be significant. However, we have many committees who have not met even once in the whole year. They don't count. Overall, judgement will be used to evaluated this category.

S4: *Organizing international conferences/workshops ON CAMPUS is one of the most important services one can do for the department.* It will have a profound impact on our visibility and it

will significantly boost our ability to attract top talents (faculty, PG students, visitors), as well as having a major impact to our future RAE ranking. It is also very time consuming and stressful. Here organizing any international or even local conference/workshop should receive recognition. In particular, major international conferences should be given major recognition, with the points being shared by the organizers according to work distribution. For example, an international conference with 50 or so participants, including some leading researchers, should earn 2 points.

Conference sessions/workshops in other places do not have the same impact to HKUST as those on campus. However, they still helps our visibility and should be put in the category of "Major Society Services."

S5: We propose 1 point for the first project, and ½ point for each subsequent project, and the maximum is capped to 2 points. Note that a group of students doing a single project should be counted only as one project.

S6: Major society services include serving on editorial board of a research journal, on committees of various societies such as AMS, HK Math Society, SIAM, IEEE, etc., on RGC or NSF panels, organizing international conference/workshop in places other than HKUST. Refereeing papers is considered a regular responsibility for all of us, and it does not figure in. Judgement will be used to award points that are commensurate with the impact of the services.

S7: Sometimes a service is so fantastic that even full points awarded in a category don't do justice. "Spillover" can be viewed as the top up.