Good evening Chair Schmidt, Chancellor Goldstein, Chair Cooper, Honorable Trustees, & Colleagues:

I am addressing you today in my personal capacity as a concerned engineering professor to comment on item 5.m of the Board's June meeting agenda. My intervention is for the purpose of speaking against a policy that facilitates the indiscriminate, seamless and unconditional transfer of credits in between campuses. I submit that such a policy is counter-productive as it undermines the specific educational mission of each of our different programs. I derive no comfort from the language included in some additional documentation which purports to exempt specialized programs, such as mine (engineering), with outside evaluations (like ABET) from the sweeping general policy that all credits transfer.

Let me start my argument by reminding us all of the obvious: Our economy needs, at least in my and associated fields the whole spectrum of particular technical skills peculiar to those of skilled laborers, technicians, master technicians, practicing engineers and research engineers. To the best of my knowledge, there is no disagreement on the basic premise that all of these categories of specialized skills are necessary to a thriving and productive economy. From an overall perspective, I assume that we also have a wide consensus that the role of the Grove School of Engineering and that of the different departments of applied sciences and technology throughout the CUNY system is to train and prepare for gainful employment the workforce that will populate the ranks of Master Technicians, Professional Engineers and Research Engineers in both the Private and Public Sectors of our City.

The divergence in the different educational philosophies and practices manifests itself first, I believe, at the juncture at which we consider the issue as to whether we need to have different emphasis and contents in the curriculum of each of the different professional tracks. The philosophical and political difficulties stem from a mischaracterization of the problem: This, I submit, is an educational issue and not an ideological or budgetary issue as some would like to paint it - It is conveniently but wrongly claimed that entertaining different curricula for the different professional tracks is a breach of our collective commitment to an egalitarian society and a burden on our resources. On the contrary, I argue that a curriculum not tailored to serve different individuals' particular skills robs those individuals from the full realization of their potential and thus of their optimal participation and contribution to their community – thus, it is, in my opinion, a squandering of our limited resources.

Let me illustrate my thesis by considering a real-life example from my own teaching experience - One of the projects that I undertook as a teacher at CUNY is developing in the core electrical engineering/technology program introductory material in applied mathematical analytical and computational techniques for the different tracks. The purpose of this endeavor was to provide the electrical engineering/technology student with the practical mathematical tools to solve engineering problems. This material is intended to complement the standard first two courses of the calculus sequence required from all students following the different electrical engineering/technology tracks.

For the computational activities, the kit of tools developed for students' use includes (a) using standard high-level computer language built-in syntax commands to perform simple mathematical operations, such as finding the derivative, the integral, the minimum, etc… of a function, (b) writing a computational algorithm based on a standard numerical technique to compute the same, and (c) developing new algorithms based on more advanced and specialized numerical schemes for pathological and special cases.

Depending on a student's career track, it became very clear to me and my colleagues that it was counterproductive to include in the curriculum more than tool (a) for students on the master technician track. A decision to include tools (b) and (c) frustrated and discouraged these students. Furthermore, the inclusion of (b) and (c) in their curriculum provided these students with less time to perfect their mastery of tool (a). The question is: should the earned credits in this less-rigorous course but perfectly suited for the Master Technician track be transferable to the other tracks? My answer, as that of any serious engineering educator, is definitely in the negative.

Next, one may pose the question: how about a "compromise" course that will be suitable for all tracks? Personally, I believe that a forced fit single CUNY-wide template covering the above described material would be very sub-optimal to all. I submit that a "compromise" curriculum would not serve the interests of any of the tracks. Why? Because, for the Master Technician track, anything beyond level (a) will pose for students an insurmountable challenge and a demoralizing atmosphere, furthermore, it would undoubtedly lead to wide-spread student failure, unless the grades distribution is grossly massaged or more accurately fudged to satisfy a certain predetermined profile. On the other hand, for the professional and research engineers tracks this "compromise" template will be the enemy of excellence and will put students in these tracks at a disadvantage when competing for jobs with graduates from top-tiered universities. The net result of the "compromise" solution will thus lead to undesirable outcome throughout the system and will result in a big failure of our efforts.

Therefore, based on my experience, I urge that decisions on credits transfer remain the responsibility of the Faculty of the different campuses and programs, and that the Trustees reject the proposal for credit-transfer as submitted by the Office of Academic Affairs. This proposal does not serve well either our mission or students.

Jamal T. Manassah, CCNY June 20, 2011