Possible procedures to change class grades assigned by a course instructor will be discussed at UW Faculty Councils this term, as recommended by UW’s Senate.

Readers may recall that over a year ago, the FAUW Board of Directors drafted a grade-changing policy for discussion in Faculty Relations Committee. Despite several months of effort by the FAUW to negotiate such a policy with the administration, the proposal was rejected. The Vice-President, Academic and Provost subsequently asked Senate Undergraduate and Graduate Councils to advise him on such a process.

A proposal by Senate Undergraduate Council was brought to the May 2002 meeting of Senate. After some spirited discussion, however, the motion to approve the proposal was withdrawn. Senate voted to send the matter back to the Faculty Councils for discussion and feedback. It also declared that any proposals from the councils would be sent back to Senate for consideration.

Ian Macdonald (Chemical Engineering), a member of the FAUW Board of Directors, examines the matter of implementing a viable grade-changing policy in his article, “Changing Instructor-Assigned Grades: Collegial Academic Freedom in Conflict with Individual Academic Freedom” (Page 2). He writes, “It does seem quite clear that authority on this issue rests with Senate or with Faculty Councils by delegation by Senate, and not with the Faculty Dean or other administrators.” (Indeed, this opinion is shared by the FAUW Board of Directors and many UW Senators.)

As a source of information for the discussions that should soon be taking place across campus, this issue of the Forum also contains the following: (i) the original FAUW grade-changing proposal (published in part in the October 2001 issue), (ii) the report of Senate Undergraduate Council and (iii) the discussion in May’s Senate meeting, as recorded in the minutes.

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**SCIENTIFIC CONFUSION AND THE KYOTO PROTOCOL**

Canada's entire climate change agenda is based on the scientific consensus on global warming. The only problem is that there is no consensus, writes Prof. Christopher Essex of the University of Western Ontario. (Page 12)

**LANGUAGE WATCH**

A new feature that monitors the "innovative" use of language on campus. (Page 14)
Changing Instructor-Assigned Grades: Collegial Academic Freedom in Conflict with Individual Academic Freedom

Comments on structure and process

by Ian F. Macdonald
Department of Chemical Engineering

The Senate is the University body with the authority to "determine the conduct and results of examinations in all faculties or academic units" (University of Waterloo Act 1972, section 22.e). It is this collective, collegial authority on academic matters that Professor Renke of the University of Alberta refers to as the "collegial academic freedom" of the University (FAUW Forum, no.113, February 2002, p.3-16). This is the institutional academic freedom that has the potential to be in conflict with the individual academic freedom of the instructor, and sets limits on that individual academic freedom; that is, it permits a process whereby the grades assigned by the instructor are replaced with institutionally assigned grades as a justifiable, legitimate infringement on the academic freedom of the instructor. It is expected that cases of actual conflict resulting in a judgement that it is necessary to replace the grades assigned by the instructor will be rare, but it is important that there be an appropriate process in place to deal with those cases properly on the rare occasion that they do arise.

In my view, there are essential criteria to be incorporated (limits on the collegial academic freedom of the Senate) in establishing such a process to make it a legitimate infringement. These include: a) that, if the instructor's grades are to be replaced with institutionally assigned grades, it must be made clear that the grades that have been assigned are those of the institution, NOT those of the instructor; b) that the process must provide the right and opportunity for the instructor to present her/his basis for the grades he/she has assigned to the final decision-making body prior to its decision; and c) that the final decision must be made by either the Senate itself or an appropriately constituted collegial council or committee to which Senate has delegated the authority. It would not be acceptable for the Senate to delegate authority on this issue to a dean or other administrative officer of the University.

The Senate has the authority to "create councils and committees to exercise its powers" (UW Act 1972, section 22.m), and the UW Act anticipates that Senate will create faculty councils and delegate its authority on academic matters, including the determination of the results of examinations to them (UW Act 1972, section 22.f). Senate has developed a mechanism for the creation of formal constitutions for Faculties that are “inoperative and ineffective until approved by Senate” (Senate Bylaw 10). This Bylaw also states that: “No provisions of the said constitutions shall be inconsistent with any provisions of The University of Waterloo Act, 1972. Further, no provision of any constitution shall be exempt from the provisions of any of the bylaws or established policies of the University, except as expressly approved by Senate.”

Recommendations of the Senate Undergraduate Studies Council on the issue of instructor grade replacement (reprinted in this issue, p. 5), which fail to meet the essential criteria above, went to Senate in May and were not well received.

The issue of instructor grade replacement is going to the Faculty Councils in the Fall, for them to provide feedback and recommendations to Senate, and since, for the most part, Senate has delegated its authority on these matters to the Faculty Councils, their constitutions are relevant. The FAUW office has copies of the constitutions of all Faculties. They are not always entirely clear, and one (for ES) is not helpful. My comments on the constitutions regarding this issue are given in the Appendix. It does seem quite clear that authority on this issue rests with Senate or with Faculty Councils by delegation by Senate, and not with the Faculty Dean or other administrators. It is less clear, but generally there appear to be committees of Council which could logically have the final binding authority to rule on specific cases.

While other solutions are possible, it seems to me that there are solid reasons why the Examinations & Standings Committee or its equivalent in each Faculty would be the appropriate body to have the binding authority (delegated from Senate) on the issue of replacing instructor-assigned grades with institutionally-assigned grades. First, those committees usually have been delegated general authority with respect to examinations and student evaluations, so they are familiar with and experienced in addressing examination issues in their Faculty. Second, it is desirable that such conflicts have a timely resolution and those committees typically have regularly scheduled meetings shortly after the final exam periods to approve grades and determine promotion decisions before the results become official and are distributed to the students. Also, they typically have an additional meeting scheduled later in each term to consider petitions from students, which could also address any such
cases not resolved at the earlier meeting. Third, they have broad representation from across the faculty and, at least in some cases, have student representation, representation from the Registrar’s office and perhaps representation from counselling services.

With the exception of ES, it seems to me that there is considerable similarity in the constitutions of the faculty councils (at least on the essential features) on the issue of evaluation and grading of students. Therefore, it seems to me both desirable and feasible to try to get essentially similar recommendations to Senate coming from all or most faculty councils, which would make easier Senate’s task of ensuring that the procedures in all faculties include a common set of essential features. The Faculty Association proposal (reprinted in this issue, p. 4) incorporates many of the essential features and would serve well as a basis for the discussions and development of recommendations in each faculty council.

APPENDIX

1. For all Faculties except ES, the constitutions are constitutions of the Faculty Council and possibly the Faculty Assembly. For ES, it appears to be a constitution of the Faculty(?) and includes descriptions of “The Dean”, “The Associate Deans”, “The Departments and Schools”, as well as several committees including “The Council” and the “Executive Committee”. It is vague on the authority of Senate and delegation of authority by Senate.

2. For the four large Faculties, the constitutions explicitly state that the Faculty Councils have authority, subject to the approval of Senate, to conduct the examinations of the academic courses in the Faculty and determine the results of such examinations (ARTS, section 5c; ENG, section II.B.iii; MATH, section II(c); SCI, section II.iii). The AHS constitution (section 4.i(5)) is more vague in providing that the Faculty Council has authority to determine, subject to the approval of the Senate, policies regarding the examination and grading of students. The ES constitution is silent on this item.

3. The constitutions of four Councils explicitly state that the constitution is in effect when accepted by Senate (AHS, section 6a; ENG, section IV and III; MATH, section III; SCI, section IV). The ARTS Faculty Council constitution is silent on this. The ES constitution is vague.

4. The constitutions of five Faculty Councils explicitly state that the Council has the authority to make rules and bylaws, appoint committees, and delegate its authority to those committees (ARTS, section 13; AHS, section 4ii and 4iv; ENG, section II.B.i and II.B.v); MATH, section II(a) and II(e); SCI, section IIi and IIe). The ES constitution again is vague.

5. Most of the constitutions make reference, either directly or in Council bylaws, to undergraduate studies committees and perhaps examinations and standings committees, and include some indication of their roles re grades and academic decisions.

ARTS – refers to Undergraduate Affairs Group (UGAG) and its subcommittee on “Examinations and Standings”. UGAG recommends to Council on matters including examinations and promotions.

AHS – refers to the Undergraduate Studies Committee (Bylaw B.4.e) and Committee on Student Appeals (Bylaw D.3a) which consider and make appropriate standings and promotions decisions upon examination results and make recommendations to the Council regarding these decisions, and deal with student appeals of decisions on the assessment of students’ academic work, respectively.

ENG – refers to the Undergraduate Studies Committee (Bylaw III.5 (f) and (g)) which reviews and makes decisions on each regular set of examination results and on special examinations. Although it is not explicitly mentioned in the Bylaw, the UGSC has a subcommittee “Engineering Examinations and Promotions Committee” (EE&P). In the UW UG Calendar (page 8:16, 2002-2003 version), it is explicitly stated for BASc Program students that the Faculty of Engineering delegates its authority for all decisions on grades, promotions, etc. to EE&P, and for BSE Program students that the Faculties of Engineering and Mathematics delegate their authority for all decisions on grades, promotions, etc to EE&P.

MATH – refers to the Undergraduate Standings and Promotions Committee (Bylaw IV.(e) 1.) that is responsible for implementing existing policies concerning examination results, standings, promotions, withdrawals, and related matters.

SCI – refers to the Undergraduate Affairs Committee (UAC) and its subcommittee on “Examinations and Standings” (Bylaw IV.A) which approves course and program examination results. The bylaw states that the committee or subcommittee decisions on examinations and standings will be reported directly to the Registrar’s office, and that the information will subsequently be reported to Council by the Chair of UAC, the Associate Dean, Undergraduate Affairs.

The ES constitution is vague.

It occurs to me that, since there does not appear to be a constitution of the ES Faculty Council per se, the authority for grades for students in ES may never have been formally transferred to the ES Faculty Council, in which case it technically remains with Senate.

◄
PROCESS FOR THE ADJUSTMENT
OF COURSE MARKS ASSIGNED BY AN INSTRUCTOR

FAUW Board of Directors
September 2001

1. The primary responsibility for assigning and adjusting marks in a course rests with the course instructor.

2. The Department/School Chair/Director or Faculty Dean may review the assigned marks in a course with respect to failure rate, class averages, and marks. If the Chair or Dean considers the course marks to be anomalous or possibly inconsistent with University policy, the Chair or Dean may present the basis for that belief to the instructor, and ask the instructor to consider adjusting the marks.

3. Following consultation with the instructor, the Chair/Director or Dean may accept the marks as assigned or adjusted by the instructor or may direct the Faculty Examinations and Standings Committee (ESC) or equivalent committee, as approved by Faculty Council, to look into the matter.

4. The Faculty ESC or equivalent committee will consider all evidence gathered from the Department/School, Dean and faculty member. The faculty member involved shall have the opportunity to review and respond to any evidence gathered by the committee. The ESC or equivalent committee will attempt to reach a negotiated agreement that satisfies both the faculty member and the Chair/Director and/or Dean.

5. If no agreement is reached, the Faculty ESC or equivalent committee shall, within 10 working days after receiving written notice from the Chair/Director or Dean, render a decision on the marks, class average and/or failure rate, with a written justification provided to both parties.

6. The decision of the ESC or equivalent committee will be final and binding with respect to marks, class average and failure rate.

7. Every attempt will be made to conclude the process prior to the normal dates on which a Standings Committee must approve marks and the Registrar sends out Mark Reports. Where this is not possible, the mark submitted normally will be Under Review (UR). Except in circumstances where a student will be substantially disadvantaged (deadlines for graduation, registration for the next term etc.) the interim Academic Decision (AD) will be AD Deferred. Where the circumstances will substantially disadvantage the student, the Standings Committee will exercise its judgement in arriving at an AD and establish a mark consistent with that AD. However, where possible, the Committee will retain the interim mark of UR until the process is complete.

8. In the event that changes are made without the agreement of the instructor, students affected will be informed in writing that the marks were assigned by the University through the Faculty Examinations and Standings or equivalent committee.
Senate Undergraduate Council recommends to the Vice-President, Academic & Provost that each Faculty has a process for reviewing and, as necessary, making changes to class marks submitted by instructors, as follows:

1. Instructors are required to submit class marks to the department/unit Chair or Director (who will be responsible for reviewing (e.g., vis-à-vis failure rate, class averages)\(^2\) the marks before forwarding them to the Registrar’s Office.

2. If the Chair has concerns with the assigned marks, he/she will discuss these concerns with the instructor. If, following discussion, the Chair continues to have concerns, he/she will ask the instructor to consider adjusting the marks.

3. If agreement on the marks cannot be reached between the instructor and the Chair, the Chair will consult the Faculty Dean. If the Dean shares the Chair’s concerns, the Dean will strike a committee, or instruct an existing committee, to consider the situation and make a written recommendation to her/him (copied to the instructor). The committee normally should consist of three or four members, including at least one representative from the instructor’s own discipline. Before arriving at a recommendation, the committee shall provide an opportunity for the instructor to meet with it; the instructor may choose to be accompanied by a UW academic colleague. The Dean’s decision will be communicated to the committee and the instructor; if the Dean chooses not to accept the advice of the Committee, then he/she will provide the committee and the instructor with a written explanation.

It is imperative that this process be completed in a timely manner, as grades must be submitted to the Registrar’s Office by the ‘fully graded date’.

4. In the event that changes are made to the marks by the Dean without the agreement of the instructor, it shall be made clear (i.e., by a letter to the students) that the marks were assigned by the Dean.

\(^{1}\) The Chair may decide to delegate this responsibility to the Associate Chair or Undergraduate Officer. For Faculty-based courses, instructors should submit grades to the Associate Dean, Undergraduate Affairs.

\(^{2}\) Upon request, the Registrar will provide individuals with the necessary tools to generate a diagnostic report showing class averages and standard deviations; this report could be scanned quickly for anomalies. Another option would be to ask instructors to indicate course average and failure rate on the grade submission form.

### Background Information for the Vice-President, Academic & Provost

On Tuesday, January 15, 2002, the following individuals met to consider the request from the Vice-President, Academic re: changing class marks (see Appendix A, B): Bruce Mitchell, Ken Lavigne, Trenny Canning, Sheila Ager, Fran Allard, Ellsworth LeDrew, Wayne Loucks and Morris Tchir (David Taylor was unable to attend). The purpose of the meeting was to consider the information compiled by Canning (see Appendix C) and other documentation (see Appendices D, E) and to formulate a proposal for consideration by Senate Undergraduate Council.

A proposal was presented to Council on February 12, 2002. Although concerns were raised with various aspects of the proposal, all members unanimously agreed that each Faculty should have a process for reviewing and, as necessary, making changes to class marks. A revised proposal, based on the comments made at this meeting, was prepared and discussed again at Council’s March 19, 2002 meeting.

At its meeting on March 19, Council made several modifications to the proposal and agreed (18 voted; 16 in favour; one opposed; one abstention) to recommend it to the Vice-President, Academic along with highlights of the dissenting views and some background information.

- the process is not meant to prescribe every eventuality and encourages broad consultation before any action is taken. Council acknowledges that in some cases, particularly for courses that are cross listed or held with courses in another department, that consultation with all departments be undertaken.
Council acknowledges the authority of the Dean, but strongly believes that the Dean should be advised by a committee to avoid her/him being both judge and jury. As long as the appropriate peer review takes place, the format of the committee need not be “cast in stone”. For instance, it might make sense for the Faculty of Arts to utilize its Examinations & Standings Committee which meets on a weekly basis; other Faculties might find it more efficient to strike an ad hoc committee. With respect to the composition of the committee, there was discussion on whether the committee should consist of past instructors of the course, for example, or whether it was enough to have someone on the committee familiar with the discipline. Council decided not to be prescriptive so long as the underlying objective is that the committee be independent [from the Dean and the instructor] and provide a balanced perspective.

Council felt strongly that, in the event a committee is struck to review the marks, this process be completed in a timely manner, so that grades may be submitted before the ‘fully graded date’.

With respect to ‘making it clear’ that the marks were assigned by the Dean, not the instructor, most members of Council felt it sufficient that the students involved be sent a letter of explanation. One member of Council felt strongly that it be noted on the transcript that the grades were assigned by the Dean (other members of Council were adamant that this not happen, for various reasons).

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FACULTY

**Awarded Tenure**

John Hamel, Associate Professor, Electrical & Computer Eng.
Robert Hecky, Professor, Biology
Laura Johnson, Associate Professor, Planning
Schoufa Lin, Associate Professor, Earth Sciences

**Awarded Tenure and Promoted to Associate Professor**

Katherine Acheson, English Language & Literature
Raouf Boutaba, Computer Science
Giovanni Cascante, Civil Engineering
Charlie Clarke, Computer Science
Stephen Corbin, Mechanical Engineering
Peter Deadman, Geography
Jim Geelen, Combinatorics & Optimization
Stefan Idziak, Physics
Marios Ioannidis, Chemical Engineering
David Johnson, Mechanical Engineering
Holger Kleinke, Chemistry
Maria Liston, Anthropology & Classical Studies
Elizabeth Meiering, Chemistry
Christine Purdon, Psychology
Dale Schuurmans, Computer Science
Donna Strickland, Physics
Lei Xu, Civil Engineering

**Awarded Tenure and Promoted to Professor**

Manoj Sachdev, Electrical & Computer Engineering
Safieddin Safavi-Naeini, Electrical & Computer Engineering

**Promoted to Associate Professor**

Thomas Astebro, Management Sciences

LIBRARIANS

The highest rank is Librarian VI. Promotion is based on professional contributions to the UW Library, the University of Waterloo, and the Library and Information Science discipline.

Faye Abrams, OCUL Projects Officer, Librarian VI
Jane Britton, Special Collections, III
Jane Forgay, Information Services & Resources, Porter, V
Anne Fullerton, Information Services & Resources, Davis, V
Christine Jewell, Head, Interlibrary Loan/Document Delivery, V
Ruth Lamb, Special Collections, IV
Sue Moskal, Information Services & Resources, Porter, VI
Shabirian Rahman, Information Services & Resources, Porter, VI
Carol Stephenson, OCUL VDX Project Manager, V
University-wide Procedure for Submitting, Reviewing and Changing Class Grades. As context to Council's recommendation, the Associate Vice-President, Academic noted the procedure is to be invoked only when the grades of an entire class are to be changed. In particular, the process addresses the current absence of monitoring capacity for anomalies in grades assignments; provides opportunity for the Chair and instructor to resolve the matter; identifies a committee to make a recommendation for action to the Dean should a resolution between the instructor and Chair not be achieved; and provides that, where the Dean changes marks without the instructor's concurrence, students are so informed, in writing. Other alternatives, including that the committee should make a binding decision (the recommended process provides for both the wisdom of the committee and the Dean) and that such changes should be noted on students' transcripts (seen to draw unnecessary attention, inconsistent with grade changes resulting from petitions which are not so noted on transcripts, and possibly disadvantage students) were discussed but were rejected by Council. In sum, the recommendation blends principle and practicality, provides for flexibility, and prescribes broad consultation before the decision is taken.

Senators heard a motion to approve the recommendation as presented on page A22 of the agenda.

Williams and Hipel.

In the lengthy discussion that followed, Senators heard general agreement that a procedure for reviewing grades was “overdue.” However, a number of concerns were expressed about the process and the proposal. The process, because the recommendation was not vetted by the Executive Committee before being put on the Senate agenda, though the Provost explained that having received the recommendation only a couple of days before the Executive Committee met, he had not had time to consider it. The proposal, for various reasons: FAUW, because the Association advocates a collegial process with an elected committee making a binding decision, thereby avoiding “opposition” between the Dean and faculty member; others, because, in their view, UW Deans do not have authority over grades and to grant them such would be contrary to the authority delegated by Senate to Faculty Councils to approve grades (a Dean or Chair who believes academic policy has been violated can refer it to the Faculty Council or one of its committees, as appropriate, to consult, as necessary, and make the final decision). Other Senators commented: academic freedom is not compromised if a faculty member’s decision on grades is overridden by a group of peers; until this recommendation has been discussed at the Faculty Councils and receives their wisdom and advice on procedural details, consideration at Senate is premature; vesting authority in the Dean to change grades could compromise UW’s academic integrity if a perception arises that grades are easily changed. One student expressed his perspective: that the committee should be elected, include students, have a chair at arm’s length, and make a binding decision.

Senate heard a motion to withdraw the motion.

Williams and Hipel. Carried.

Senate heard a new motion that Senate refer this matter to the Faculty Councils with instruction to propose guidelines appropriate for their specific Faculty, taking into account the report of the Undergraduate Council and discussions at Senate, and that the Faculty Councils send these proposals to Senate for its consideration during the fall 2002.

Woolstencroft and George. Carried.
LETTERS TO THE EDITOR

What does “Branding Outreach via Communication Vehicles” (Forum, June 2002) mean to me?

May I offer three of many possible interpretations:

1. Determining the efficiency of television programs intended for outlying areas.
2. Evaluation of distances travelled by a Bell telephone service van.
3. Verbal appraisal of the excited state of a male sex organ.

Tom Fahidy
Department of Chemical Engineering

Shucks, folks. It’s obvious that this here lingo is about cow punchers about to burn their ranch’s trademark into some calves’ hides with a hot iron. It takes a certain amount of “reaching out” to brand a steer in just the right spot. ‘Course you gotta get to the corral first, before you start branding. “Communication vehicles” ain’t nuthin but pick-up trucks with cell phones.

Jeanne Kay Guelke
Department of Geography

FORUM QUIZ

1. Where could the following mathematical operation conceivably be applied?

\[
\frac{0 + 0 + 0 + 0 + 0}{5} = 32
\]

2. The following photo, taken at UW by undercover Pleiadean agents, was intercepted by the Forum. What event is taking place here?

a) Pre-pre-registration for the “double cohort”.

b) Proactive interviewing of candidates for software engineering positions in the Department of Electrical and Computer Engineering.

c) None of the above.

(Answers on p. 11)
GODS AND SERVITUDE

A physicist speaks out against Australia’s GST

As a general rule, people, even the wicked, are much more naive and simple-hearted than we suppose.

Dostoevsky

If history is philosophy teaching by example then we should, right now, with the election behind us, take yet another long hard look at this country, and that wretched tax – the GST. I recall introduction of the GST to Denmark in the 1960’s. Prime Minister Jens Otto Kragh ‘eased’ it through the Folketing (parliament) by means of pleonastic sleight of mouth. The new impost was to be based closely on the French taxe sur la valeur ajouté. It would be 8%, levied every time and place where men, money and commodities ‘moved’. The argued purpose was not specifically to raise extra revenue, but rather to give Government a new tool – a means of either ‘cooling’ or stimulating the economy – maybe 2% up, or 2% down. “Never”, he said, never would the GST exceed 10%!

“Never”, also said John Howard, would he introduce a GST into Australia. That is recorded historical fact, as is the outright retraction of that promise we all were witness to. It is also vital to remember clearly how the independent Senator for Tasmania was bought by the grant of open favours to that State, the slip-shod stance and final humiliating capitulation to populism of the Democrats, and the then ambivalence of Labour under Mr. Beazley. How happy you were then, Prime Minister, your glee in direct proportion to our expense!

The plain fact is, however, that in countries smitten with a GST the excuses – not reasons – have been lously the same. The worst, perhaps, that it has succeeded so well elsewhere, or that it simplified revenue collection, whilst making it more fair. In any case tax reform was necessary, and tax evasion would finally be stamped out, there would be cuts in income tax to compensate, all against the gloriously encompassing backdrop of economic rationalism.

Australians – you have been conned! Einstein said that one of the finest ‘inventions’ of man was compound interest. In a purely technical and negative sense, ethics aside, the GST must run a close second, since it compounds tax. Yet it is one of the most regressive taxes conceivable – sleek, all-embracing and shifty – and arguably both fundamentally immoral and dishonest. It adds to your income tax, and we collect the tax from ourselves in a procedure we now know to be far from simple. There is a relentless underlying mechanism whereby, through: the mere passage of time, the impact of the tax grows naturally, simply because of inevitable inflation, and of ‘bracket creep’ in taxation groups, from the near-impoverished up to what used to be called the prosperous middle-class. By these means income tax compensations are wiped out in two or three years, and we are left with both a GST, and a growing tax on earnings for which the marginal rate cuts in at a point which is, frankly, disgusting. And finally we have placed in the hand of Government, and all of those which follow, a most simple taxation lever graded in increasing percentage points which can more easily be ratched up than down. The legislative mechanisms put in place to protect us against government misuse of this device are trivial, and easily superceded!

We had the inevitable talk of leadership.

It was written of Bob Hawke, in his prime, that he ‘bestrode the Australian political scene like some great Colossus’. Whilst that hardly describes Mr. Howard the Prime Minister does have a presence all his own – perhaps vaguely Menzian – and also, sometimes, an engaging charm coupled with stubborn independence. It is clear he holds pride in his gun laws, a tidying of the waterfront, tax reforms overall, the GST, betterment of the national economy, his handling of the East Timor crisis, and in turning back the boats. Inevitably though, his contact with real Australians, in part even because of excessive government use of the media, has been progressively worn away.

Australians first and foremost want their Prime Minister firmly in the Lodge. One who can say “sorry”, walk across bridges to reconciliation, and one who can sensitively understand the massively rising national urge and surge for independence and an Australian republic. They have been bemused neither by bread and circuses nor pork-barrelling. They have been offended by blatant back-flips – beer, petrol, road repairs in marginal seats etc. – all fuel for broad national cynicism. Pensioners have been deeply distressed by GST-balancing offerings to them which phased out so quickly as to be insulting -the second offence compounding the first. And similarly for the 84% of self-funded retirees for whom, in a much touted provision, there was nothing! Memories are long – nursing-home disasters, kerosene-bathed nursing-home patients, telephone privileges abused, travel expenses rorted – and so on. It’s a long list, Mr. Howard! And above all Australians are now powerfully aware of a newly-refreshed inconsistency in government. The little Aussie battlers and small businesses have more problems than before, not fewer. The divide between the two ends of town is broader, deeper. And the tertiary scientific education and research scene descends into disaster!

Growing authoritarianism accompanied by disdain for individual rights has filtered down to the level of local government. Councillors walk in and out of private properties in the name of public good, invoking Federal actions in support, pass laws concerning water, sanitation, rights of way, building permits, the environment etc., without proper provision of information or opportunity for discussion. And Premiers, as major recipients of GST revenue, would do well to recall that what should have priority is not the State which we live in, but the state in which we live.

Above all the Coalition bears continuing responsibility for the present anti-intellectual trends which lie behind the budget-balancing rhetoric, and the real crippling damage which the nation continues to sustain. Public health, overt poverty, substance abuse, hospitals, the nursing profession, education, universities, the ABC, and the CSIRO, are examples which spring instantly to mind. Barry Jones, arguably Australia’s best ever Minister for Science and Technology, wakened us up in the mid-eighties to our miserable position in scien-
tific research – at number 19 – on the OECD scale of 24 ‘advanced’ nations. Now we are back down there – wimps again! Our position at number 5 in terms of fiscal balance, points precisely to the massive imbalance and, over the larger picture, the paucity of prime ministerial perception.

In universities and the CSIRO highly educated and well-experienced scientists – some with two doctor’s degrees and qualifications even higher – spend as much as 80% of their time or more in a search for ‘external funding’. There are immense dangers in the compromise of integrities, in dilution of effort, in permanent loss of talent. Malcolm McIntosh, previous CEO of the CSIRO, was moved to say, in a public address in 1999, that “you will not find any curiosity-motivated research in CSIRO today". And elsewhere that “CSIRO cannot afford to support a single researcher, no matter how eminent that researcher, working on problems of no immediate relevance to Australian industry or community”. I guess that rules out Nobel Laureates! And isn’t all research, by definition, motivated precisely by curiosity?

These immense basic shifts of effort and purpose are echoed in out universities. Amidst all the slather of economic rationalism – outsourcing, down-sizing, package-taking, head-hunting, division-merging, task-sharing – this means something very simple. It means that, notwithstanding additional revenue from the GST, the Government has been selling off the future and the unique flavour and promise of this country, first in the name of the money-God and fiscal fortitude, and most recently for a mess of immediate, opportunistic electoral potage!

There is no leadership. There is no over-the-horizon clarity of vision. And there is no economic miracle. Step once out of the country and compare ourselves with others. Almost every day “the dollar is down against all the major currencies!”

Denmark and the Danes are beautiful – incredibly patient! In Copenhagen the GST is now 25% – yes – and the marginal rate of income tax is 60%. Yes! There is a wealth tax, and a new tax must be paid annually on any modernization of your property – an improvement tax – even a garden wall, or a duck pond. And the black cash economy is huge. Despite massive overtaxation the very fabric of Danish society is breaking down, and no longer is there care from the ‘cradle to the grave’. Hospital waiting lists are often longer than here in Australia. Is this where we are headed – no clear foreign policy, and no one at the wheel? And to a calamitous fall in both the quantity and quality of our hard won and richly deserved international reputation in the sciences – especially physics?

There IS a way to make the GST more genuinely fair, and without roll-back. It involves appointment by government of a truly talented financial expert whose mandate would be to examine the loss of personal resources due to inflation and bracket creep. His responsibility would be to maintain the compensatory nature of initial changes in income tax by readjusting the income tax schedules on July 1, every year. A sort of fiscal Alan Fels. Or, as the Danes would say, “en virkelig (real) Ombudsman”!

Well – as you so often say – Mr. Howard – “you can’t have it both ways” – a rule which should apply to all. But you won’t do it, Mr. Prime Minister, will you? Prime Ministers dance to a different tune!

Lewis Chadderton

(Lewis Chadderton is Professor of Physics, University of Copenhagen, Adjunct Professor of Physics at the Australian National University, and former Chief of CSIRO’s Division of Chemical Physics.)

The Forum thanks Prof. Chris Hamer, Editor of The Physicist and Prof. Chadderton for permission to reprint this letter. The Physicist is a publication of the Australian Institute of Physics.

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RESPONSE FROM THE MINISTER

I refer to the letter entitled ‘Gods and Servitude’ published in the January/February edition of The Physicist, in which Professor Lewis Chadderton sets out to discredit a number of the Federal Government’s policies, comments adversely on the impact of the GST in relation to its impact on tertiary education and research, and depicts a bleak picture of the future of science and research by Australian universities and the CSIRO. While accepting the author’s right to express his views I feel obligated for the sake of your readers to set the record straight so far as the Government’s commitment to science and research is concerned.

The author claims that there has been no economic miracle in Australia in particular. Maybe not miraculous but a sound policy framework has undoubtedly laid the foundations for Australia’s improved economic performance. In recent years, Australia has benefited from stable macroeconomic policies (assisted by a strong economic position), an open trading environment microeconomic reform, greater flexibility in labour markets and an increasingly skilled workforce. As a result, and as recently noted in an OECD report, Australia’s track record stands among a handful of countries that enjoyed faster growth in productivity and living standards in the 1990s. Economic growth is accelerating with GDP increasing by 4.1 per cent over the last year, the fastest rate of growth among major industrialised countries.

This is the kind of economic climate in which innovation can thrive. The tax reforms have provided Australia with an efficient and internationally competitive tax system including one of the lowest company tax rates in the region. Australia now has a more flexible labour market better suited to the needs of emerging industries.
Against this background the Government has taken initiatives specifically to stimulate and encourage innovation. These include the decision in the 1999-2000 Budget to double base funding for health and medical research, by providing an additional $614 million over five years to the National Health and Medical Research Council. Backing Australia’s Ability (BAA) has extended that commitment to research and innovation more generally. BAA provides an additional $3 billion of funding over five years, representing the largest group of measures ever put together by an Australian Government to foster innovation.

I am proud to say that our Prime Minister is deeply engaged in science and innovation matters not only through BAA, but also as the leader of the Prime Minister’s Science, Engineering and Innovation Council which he has said many times has had a powerful educative influence on him.

Public policy on science and innovation has changed profoundly with BAA because for the first time addressing the major issues across the whole of Government. The research agencies, the universities and industries are coming together in a collaborative spirit that was unimaginable even five years ago. We have the policy framework within which we can operate, and good amounts of funding to work with. Science and innovation policy are firmly, and permanently, on the public agenda. The author equates balancing the budget with so-called cuts in funding to science and CSIRO in particular. He is also quick to criticise the external earnings target policy for CSIRO as the reason why CSIRO does not do curiosity-motivated research.

There is nothing anti-intellectual about balancing a budget, and the Government has certainly not done so at the expense of science in general or CSIRO in particular. In 1996, the Government implemented its election commitment to restore $20 million to the funding base of CSIRO – funding that the former Labour Government had removed. Government appropriation funding to CSIRO has grown substantially from $569 million in 1997-8 to $617 million in 1999-2000, some of which supports curiosity-motivated research in areas such as atmospheric science, salinity research, and radio and optical studies of the universe.

The external earnings target policy has been applied to the research agencies for over a decade. It has required CSIRO scientists to devote time to looking for external funds, but that was part of its purpose – to promote linkages between government research agencies, industry and other research users. The policy has been successful in this regard. Since 1989-90, external earnings have broadened the funding base for CSIRO, without any associated reduction in appropriation funding. Nevertheless, this Government is re-assessing policy instruments associated with research and its commercialisation, and the targets policy is no exception. It is now under review by the Chief Scientist.

I further note the author’s comments about Australia’s tertiary scientific education and research environment. The education and training sector is broadly GST-free, while higher education outcomes by way of graduate employment are very sound. The Government has increased flexibility for higher education institutions, enabling them to open up additional study opportunities for students and to diversify their income sources through a range of measures. Institutions have been provided with the necessary freedom to become more entrepreneurial, and to look for additional sources of funds other than from the Commonwealth. These include establishing links with industry by expansion of cooperative courses and by increasing the level of contract research undertaken by institutions. It is the Government’s view that such initiatives, responsibly entered into, ensure that institutions are increasingly responsive to industry and employee demands and encourage universities to be more creative, innovative and diverse in their approach to teaching and learning.

While providing greater flexibility to institutions, the Government has maintained the Commonwealth grant per fully funded university student between 1996 and 2002 (including Higher Education Contribution Scheme loans to students) in cost adjusted terms. The total revenue from all sources for the higher education sector is estimated to be $10.4 billion in 2002.

Finally, the Government understands that the kind of Australia in which the next generation will live, to a large extent will depend on the success of Australia’s universities. As many of your readers will be aware, I have announced a review of higher education and in late April released a discussion paper called Higher Education at the Crossroads. This discussion paper is the first in a series intended to stimulate both discussion and debate of the challenges facing Australian universities and the policy changes before us. I invite your readers to participate in this debate.

The Hon. Dr. Brendan Nelson
Minister for Education, Science and Training

ANSWERS TO FORUM QUIZ (p. 8)

1. At the University of Waterloo, specifically in the Office of the Registrar, when computing grade averages of students in the Faculties of Arts, Mathematics, Science and Applied Health Sciences.

Transcripts of students in all faculties record the actual grades earned by students in their courses. In the computation of grade averages that appear on the transcripts, however, all grades below 32 are converted to 32 for students in the four above-mentioned faculties.

The Forum thanks Ken Lavigne, UW’s Registrar, for providing the above information.

2. b). Competition with U of T is getting tougher.

Bonus marks: Can you find Prof. Tony Vannelli, Chair of E&CE, in the photograph?
Canada’s entire climate change agenda is based on the scientific consensus on global warming. The only problem is that there is no consensus.

**SCIENTIFIC CONFUSION**

Christopher Essex  
Department of Applied Mathematics  
University of Western Ontario

Imagine you woke up one morning to find that scientific consensus on climate change had vanished. Since the government bases its entire climate change agenda on a chorus of consensus, where would that leave its hearings on the Kyoto accord? What would we do with the gigantic international policy apparatus behind Kyoto? Would you even want to hear the news?

Many would not, so it gives me no pleasure to say what I must.

I have been involved with the fundamentals of the science for more than 25 years. I have never seen anything but a wide range of opinions about climate change among the scientific community that I know. You can find scientists on all sides of the issue, although you will rarely see that reflected in the press. Activists write there instead, drumming an authoritarian message about science, distasteful to all thinking people.

I have seen it many times. Some indignant and impassioned writer declares ignorance about the science behind global warming, then continues to write an article, or even a book, about it anyway. The author usually tells us who is not an expert. Charges of duped scientists with views tainted by ulterior motives are made. Invocations of signs, omens and portents stand in for discussion of basic science. Unanimous agreement among the “true” experts is always proclaimed.

But agreement about what? If you claim not to know the science, how could you know? If you don’t know the science, how do you know who is a “true” expert to do the agreeing?

The federal government responds by choosing who the experts are and defining for us what consensus means. Their discussion paper on Kyoto stands on no other basis. Academic scientists aren’t invited to their hearings. Based on a consensus that there is a consensus among scientists, everyone has jumped right on past the science without a second thought.

They jumped right past me. A parliamentary committee was to have heard scientific testimony and my name was on a list of invitees to give it. But it won’t happen now. I had hoped to avoid the authoritarian circus that has descended upon a once proud science, by speaking in that more somber venue.

The cornerstone of the consensus mantra is a United Nations report on climate change (Climate Change 2001: The Scientific Basis). All other similar reports ultimately have been influenced by the impression the UN report left. But I doubt that most of the 600 or so authors and 400 referees of the scientific report would agree with the impression that the public seems to have of it.

They certainly weren’t asked to endorse the conclusions of the small interpretation documents slapped onto the front of it. Moreover, there was no specific proposition that the scientists collectively addressed, let alone endorsed. They only wrote about their many respective individual specialties, like authors in a huge collection of short stories. Where is the “consensus” in that?

But those government-sponsored “slap-ons” have functioned, in the eyes of the rest of the world, as a proposition endorsed by all of the scientists. They didn’t endorse it. But one might get the impression they that they did.

Political magicians conjured it into a broad scientific “consensus.” A consensus on what? By whom? You must break the enchantment to be able to ask. Many in the press or in politics have certainly been under a compulsion not to ask.

A small group hand-picked by governments wrote those interpretation documents for the UN. I could hand-pick a panel of respected scientists that would interpret the complex and ambiguous scientific report with very different conclusions. Our scientific understanding on this topic just isn’t as hard-edged as people have been told. The scientists have done their best to make it otherwise, but the problem is just too fiendishly difficult.

Scientists themselves have many misconceptions. For example, 100 Nobel Laureates endorsed a statement in support of the Kyoto accords. The government also cites the statement to justify skipping the science to do whatever they want. What political opponent would dare contradict Nobel Laureates?

Real scientists would not give contradicting them a second thought, if the Nobel Laureates had made a scientific mistake. Every Nobel scientist who signed understands that. It’s the
culture of science. Perhaps the many others who signed, like Desmond Tutu or Mikhail Gorbachev, might not understand.

As it happens, the Nobel Laureates did make a most telling mistake on the science in their statement’s only reference to global warming! They asserted that the equatorial regions would be affected most. But the standard view they were endorsing says the poles would be affected most – oops! Even Nobel Laureates are human.

It was telling because they clearly didn’t do their homework. Perhaps they were hoping that the alleged scientific consensus would see them through. They were relying on authority, just like everyone else, rather than thinking for themselves. Theirs was a moral gesture, not a scientific one.

As one Nobel Laureate who did sign told me over dinner, Nobel Laureates can be treated as “movie stars” at times. Pressure is on them to lend their names to causes that they may not be fully acquainted with. Their statement also condemned poverty and aimed to keep us safe from nuclear destruction, too. I would probably sign myself, despite the error, especially if presented with so many impressive people who already had signed.

If you are a scientist who wants to sign something, as a scientist, there are choices on all sides of this issue to choose from. There have been at least five major petitions or statements, not including the Nobel Laureates’ statement. One of them, called The Heidelberg Appeal, is favoured by those against. But one of the 100 Nobel Laureates signed it too!

The establishment is definitely against the anti-Kyoto petitions. So you may not be aware that any scientists have signed such things. There have also been cheap and vicious attempts to discredit the signatories of those petitions. We are dealing with a very nasty political game.

The Oregon Petition (against), with over 17,000 names, has been singled out in Scientific American magazine for attack. The magazine suggested that most of the names did not belong to “true” experts and insinuated that some names might belong to no one at all. However, I personally know credible scientists who did sign that petition.

One fashionable claim in the pro-Kyoto activist community is that “Ginger Spice” is a name on that petition. It isn’t. But there is an unshakable belief that critics of the warming picture aren’t “true” experts, or are part of a plot.

Moreover, prominent people and institutions brazenly make outrageous charges that there is a plot. The U.S. Interior Secretary, Bruce Babbit, said in 1997 that “the oil and the coal companies ... have joined in a conspiracy to hire pseudo-scientists to deny the facts ... suborning scientists onto their payrolls and attempting to mislead ...” An editorial in the famous science journal Nature charged that “industrial lobby groups ... championed specious scientific findings” creating “a bogus scientific debate.” Even our Environment Minister dismisses scientific critics as “contrarians,” and ignores sincere offers to be briefed on serious problems with the science.

Personal attacks are also made against specific scientists. Some are spectacularly public. The editor of Scientific American has been a perpetrator. Others are insidious moves behind the scenes. Allegations have been made that people have been ejected from meetings or have lost their research funding for “wrong” views on global warming. It can go the other way too: One scientist (pro-Kyoto) complained to me of being taunted as a “chicken-little-scientist.”

There will be many nasty stories for the scientists to tell on all sides of the issue when history takes an objective look back on this period. This is not news to scientists. They have always been first to take the heat when people get carried away about scientific issues. And many have gotten carried away!

It would be all so much simpler if the silly jingles and proverbs which populate the press and elementary school curricula to explain global warming were actually true. But greenhouses don’t work by the greenhouse effect, and carbon dioxide isn’t the most physically important “greenhouse” gas! These are just science junk food.

I was recently invited to speak at a scientific meeting on the limitations of models. There, a senior scientist, who participated in writing the UN “consensus” report, told me (privately) that we do not understand climate now, and we would never solve the scientific problem of climate! So much for a consensus among the UN scientists.

His is a defensible position. The climate problem is unsolved for very deep reasons. It is as hard a scientific problem as humans have ever faced. People tried to solve it in the late sixties by brute technological force: more observations on bigger computers. Instead of the science cracking the problem, the problem cracked the science! They discovered chaos and formal unpredictability.

The discovery caused a scientific revolution that has been ringing through physics and mathematics journals to this day. It even snuck into the UN scientific report. Section 14.2.2 says, in the appropriate jargon, that we haven’t a clue about climate, just as that scientist said!

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The Forum thanks Professor Essex for permission to reprint his article.
**LANGUAGE WATCH**

*A new feature that monitors the “innovative” use of language on campus*

(Italics are used by the *Forum* to highlight words and phrases of interest)

► From the June 17, 2002 report to Senate of the Senate Undergraduate Council:

“However, students were perceived as ‘lacking adequate enabling skills’” (Page A78)

Section 6 is entitled, “Plan Inactivations” (Page A100)

“It is recommended that the Art History and Studio minors be inactivated as a new Minor in Fine Arts has been proposed.” (Page A100)

(Editor’s Note: ‘plan’ and ‘inactivation’ are presumably terms that are dictated by the new computer software system used by UW. By the way, have you had a memorable encounter with UW’s new software system? If so, we’d love to hear from you.)

► From the *UW Bulletin*, Wednesday, July 10, 2002:

“Teaching Research Methods: A Learning Technologies Design Café on Tuesday, July 23, …”

► From the *UW Magazine*, Summer 2002 issue, p. 14 (also found in the *UW Bulletin*, Thursday, August 8, 2002):

“Each project is geared toward the prospect of building a talent trust – the idea that Canada needs talented people to find innovative solutions to complex problems, …”

**INNOVATION COUNT:**

In the newly released, four-page brochure entitled, “It’s about people”, in which “Campaign Waterloo – Building a Talent Trust” is announced, the word *innovative* is used seven (7) times.
curriculum development in University of Waterloo courses. Our concerns stem from the possibility that the established procedure for ensuring effective curriculum might have been circumvented; that the academic freedom of the faculty members involved in teaching these courses could be compromised; that the curriculum in specific courses could be perceived as deriving from an external source; and that the University could be perceived as endorsing an external organization’s products.

(Continued from page 16)

(Continued from page 16)

We requested that the issues involved in this funding announcement be placed early on the September Senate agenda. It is our view that the University needs to clarify its position regarding the relationship between Microsoft and the integration of curriculum in our programs. The publicity that this issue is generating is damaging to all of us, and we need a clear statement regarding the University’s autonomy with respect to external sources of funding.

As both newcomers and returnees can see, the Faculty Association works hard to ensure the development and adherence to effective policies. We hope that you will join us in our efforts.
Greetings and Salutations!

For many of us in academia, the autumn is paradoxically a time of new beginnings. For some new faculty at the University of Waterloo, this fall truly marks their entrance into faculty positions with the demands of both teaching and research. This year the FAUW Board extends a special welcome to new faculty through our publications and also through our participation in the luncheon, seminar and BBQ on September 4 for new faculty. I would like to take the opportunity of this message to explain to new faculty the central role that the FAUW plays at the University of Waterloo. At the same time, I would like to welcome returning faculty and to report on some of the summer events, particularly the FAUW’s perspective on the Microsoft deal as reported in the local and national press.

What is the FAUW?

The Faculty Association has an unusual position at the University of Waterloo. We are not a union. Rather, we are an association that offers its members most of the benefits of a union without the constraints. For example, we select faculty representatives who negotiate salaries and benefits. We have developed a Memorandum of Agreement with the University’s administration that covers many of the conditions of faculty employment. We also continue to develop and refine policies through our involvement in the Faculty Relations Committee, a unique consultative committee that allows faculty and administration representatives to meet and discuss issues and problems that affect faculty.

In addition, the FAUW has an active Academic Freedom and Tenure Committee. This committee offers individual faculty members advice and assistance if they experience any problems regarding their own terms and conditions of employment.

As an association, we are also connected to a provincial network – the Ontario Confederation of University Faculty Associations (OCUFA) – and to a national network – the Canadian Association of University Teachers (CAUT). Both OCUFA and CAUT lobby on our behalf and provide valuable information for the negotiation of salaries, benefits and other terms and conditions of employment. CAUT also provides our members with legal advice that we could not otherwise afford.

Are you a participating member?

Under the terms of the Memorandum of Agreement, deductions are automatically made from your salary to support the work of the Faculty Association. However, faculty are not automatically members of the Association. To become a member, you must choose to join. Joining the FAUW provides you with two additional benefits: the right to vote and have a voice in the organization; and the possibility of being an active participant in one of our committees. If you are not already a member, please contact Pat Moore at extension 3787 and she will send you an application form. We hope that you will join us in our attempts to make this a better place by improving the policies that govern our teaching and research.

What happened this summer, i.e., the Microsoft situation?

As many of you are aware, the University of Waterloo experienced negative publicity in August regarding the University’s participation in the Microsoft Canada Academic Innovation Alliance. We followed this situation closely and determined that the information regarding the deal lacked clarity with respect to issues related to curriculum integration. On August 14, for example, a published “background” piece announced that students seeking admission to Electrical and Chemical Engineering (E&CE) would be required to take a compulsory online course that would involve Microsoft’s new language, C#. Then on August 23, a fact sheet on the deal (again published on the University’s web site) stated that E&CE 150 would adopt C# as the primary vehicle for teaching introduction to programming. We then learned that decisions on the curriculum have not yet been made through regular channels of faculty approval. At the same time, however, we were assured by President Johnston and the Dean of Engineering that any possible curriculum changes would follow normal procedures. Given the discrepancy between what has been published and what has being said, I sent a memo to President Johnston to express the following concerns:

The Board of the FAUW recognizes the need for external funding for University projects due to continued restricted levels of government funding.

However, the FAUW has concerns regarding the recent announcement that Microsoft will be funding (Continued on page 15)