The Minutes of the continued Thirty-Fourth Meeting of the Faculty Council of Science held on Wednesday, April 5, 1978 at 2:40 p.m. in Room 207 Buller.

Members Present: Dean R. D. Connor, Chairman; Professors B. D. Macpherson, P. K. Isaac, W. C. Brisbin, F. J. Ward, P. Gaunt, R. Longton, R. Evans, J. Gee, K. W. Stewart, J. C. Rauch, S. Cheng, G. I. Paul, R. G. Woods, J. Berry, F. M. Kelly, G. Hickling, J. Svenne, H. C. Finlayson, N. R. Hunter, H. D. Gesser, G. Baldwin, I. Suzuki, B. Johnston, A. Gerhard, P. McClure, R. Thomas, S. G. Sealy, H. Halvorson, A. Olchowecki, P. Loewen, H. W. Duckworth, D. N. Burton, N. D. Gupta, C. K. Gupta, J. M. Vail, R. Quackenbush, G. C. Tabisz, J. G. Eales, J. F. Brewster, A. Chow, J. Charlton, S. Oh, J.S.C. McKee, B. R. Henry, Messrs. W. B. Barker, B. W. Mayba, D. W. Okrusko; G. Richardson, Secretary. (49)

Regrets: Professors D. Young, J. Reid, G. Robinson and B. Irvine.

The attached tribue for Dr. S. Sen was accepted by standing vote of the council. It was agreed that the tribute be included with the minutes of this meeting and a copy be sent to Dr. Sen's family.

This being a continuation of March 31, 1978 meeting, the Chairman moved to item #7 of the agenda for that meeting.

7. New Degree Proposals

The Chairman explained that because this item of business was considered a matter of substantive policy, the discussions would take place at two consecutive meetings, the second to take place on April 14, 1978 (subsequently changed to April 18 in view of the Winnipeg Science Fair on 14th April). As such no amendments or votes would be accepted at this meeting. These would take place at the second meeting. The Chairman asked Dean Isaac to speak to this business.

Dean Isaac began by outlining the faculty's current degree program, i.e. honours degree and general degree. The honours degree was four years, very departmental oriented with few faculty regulations. On the other hand, the general degree was three years, had many faculty regulations and little departmental input, mostly in terms of the department's major package. Over the years criticism had been leveled at the general degree for being too restrictive to be a viable general education as well as for not being specialized enough. Attempts had been proposed to remove some of the criticism but these also had met with a great deal of opposition. During a recent trip to western universities by the Deans it was discovered that just about all these universities had moved to three degrees; one for general education and one for specialized education with the honours degree being retained in all universities. The general degree was a three year degree generally with fewer regulations. Whereas the specialized degree was a four year degree with additional study directed at the "major" area. With this idea in mind the current proposal had been drafted. It was then moved by Dean Isaac (Kelly) that:

> Faculty Council approve in principle the offerings of the three degree programs, i.e. a three year general, a four year specialized in addition to the existing honours programs.

If this motion was subsequently passed by Faculty Council, Dean Isaac said that he would then move that an implementation committee be established with departmental representatives to develop the details of this plan.

In explaining the general degree Dean Isaac said that it was envisaged that the major study program as known now would be done away with and replaced by a requirement of two general course units with four courses from outside the faculty. The specialized degree was designed to fall between the general and the honours degree and was intended to be professional training and for students who wished to go into graduate work but who did not want the departmental restrictions of an honours degree. Dean Isaac concluded by saying that both new degrees come as a package,

Council could not approve one and not the other.

Having just visited with each departmental council, the Chairman stated that the responses of the several departments varied quite markedly. Some departments were already preparing outlines in anticipation of the new degrees whereas others felt that problems particular to their areas would have to be solved first before they could commit themselves. Other departments were still debating the relative merits of the proposal. Generally it could be said that most departments approved the specialized degree but were uncertain of the merits of the general degree. Each department head reported on the position of his department for the information of council.

The Chairman's response to the question, what would happen if the implementation committee could not come to an agreement, was that the proposal had ultimately to be passed by Faculty Council and any impasse would have to come to Faculty Council for disposition.

In reply to how the enrolments in these programs at other universities compared, Dean Macpherson read the enrolment statistics for the University of Alberta over the last four years. These showed a ratio of students in the three programs of 4:2:1. The enrolment appeared to be quite static over the four year period.

Dr. Duckworth pointed out that what was in fact taking place was that the faculty was dropping one program and replacing it with two others. He implied that he could not see how this could be done without additional courses and increased costs.

Dr. McKee said that he was very much against the general degree proposal because of his experience at a university that had such a program. He said that it had caused much grief amongst the staff and students. Staff had disliked teaching such general material under the different concept. Students, on the other hand, had tended to wander a lot and seemed to have no academic goals or direction. Dr. Vail supported Dr. McKee. He felt that for such a program to be meaningful it had to be

innovative and to be such it would be expensive. He pointed out that departments had lost staff over the past several years and now they were being asked to teach another degree program. He concluded by saying it would make more sense if the current programs were upgraded.

Professor Henry said that he was in favour of the four year specialized degree. In explaining his feelings about the three year degree he said that students could make it as meaningful as they wanted to make it. If a student wished he could take the same program as is now being offered in our major program. This option was open to the student. He did not think that the general degree was worthless.

In reply to where the request for a change came from, the Chairman said that this had come from many sources; departmental councils, faculty members, students, high schools and employers, to name a few. Dean Isaac pointed out that in all the universities visited by the Deans it was very apparent to him that students favoured this type of arrangement. The programs offered a more varied range of study and many of the students wanted this. As for the requirement of additional courses he said that he felt very few new courses would be needed. Existing courses could very well be recombined to form the bases of the new degree. By way of example, he cited the 'minor' that the Physics Department now provides for Arts students. He felt this could well form one of the course units.

Mr. B. Barker of the Science Students' Association stated that most students he had talked with about this proposal were in favour of it. They liked both aspects of the packages, the additional year of specialization and the unrestrictiveness of the general program. The proposal had been thoroughly discussed at the Lost Weekend last January.

The Chairman explained to Faculty Council that study on our current major program indicated that there were two distinct groups of students within the program. One group took all the options, including the maximum number of courses outside the faculty. These he referred to as the general study students. The other group made use of as few options as was possible. These students tended

to confine and concentrate on their study; these he referred to as those students wanting to specialize in a particular area. He indicated that what was essentially being proposed now was a splitting of these two groups into two separate degree programs, each a bit more refined in their intended direction. The Chairman continued to say that the student advising service would likely have its workload increased if such a program was instituted. He felt the advisors would be playing a very important role in this program, especially with the general degree student. It may well be that the care of the general student would become the responsibility of an Associate Dean.

In answering what the implications would be if the motion was passed Dean Isaac said that what he hoped to get from Faculty Council at this time was a commitment that council felt the proposed warranted more delving into. This would put a committee to work on an idea that council felt had merit. If council at a later time was not satisfied with the details that the committee was proposing or for some reason decided the current program was adequate enough, it could change its mind and disband the implementation committee. Approval in principle was not a binding commitment to the proposal. In concluding his remarks Dean Isaac said that part of the problem with such a proposal was due to the fact that we were such a large faculty with a great range of study matter what was wanted at this time was the chance to study the proposal in greater detail and this would be accomplished if the faculty was to approve the proposal in principle. Faculty could at a later date disagree with the details. Before adjourning the meeting it was brought to the Chairman's attention that the date of the next meeting was the date at which many Science staff would be away at the Science Fair. The Chairman said that he had not realized this and would change the date for the next meeting.

The meeting adjourned at 4:44 p.m.

gr/nl

DR. SUNIL KUMAR SEN

Professor Sunil Kumar Sen was born in Calcutta in 1924. He studied at the University of Calcutta and was awarded a B.Sc. in 1944, an M.Sc. in 1946 and a D. Phil. in 1951. Dr. Sen became a Fellow of the Physical Society of London in 1957 and a Fellow of the Institute of Physics in 1966. He was a life member of the Indian Physical Society and held memberships in various other professional organizations.

Dr. Sen worked for several years as a research fellow with accelerator groups in India, in England, in Germany and at Saskatoon. In 1961 he joined the Physics Department at this University as an assistant professor and was a full professor when his sudden and untimely death occurred at the end of March this year.

Dr. Sen will be remembered by his students for the enthusiasm with which he approached his subject. His lectures were always carefully prepared and his excitement with the subject matter was always present. His students will also recall him for his concern for them as individuals.

Dr. Sen's considerable research work at this university was initially in the field of nuclear spectroscopy which continued his previous work with accelerators. This lead into work on investigations of electric field gradient of the electrons of the atom at the position of the nucleus, known by the acronym ESCA, Electron Spectroscopy for Chemical Analysis. At the time of his death he was becoming involved in the new and important field of surface physics. Dr. Sen has an impressive list of scientific publications.

Dr. Sen also made many contributions to the University on various committees. He was actively involved with ScienceFairs and in 1977 was awarded an Honourary Life Membership by the Science Teachers' Association of Manitoba in recognition of service to science education in this province. Also, the Manitoba Schools Science Symposium Committee has named the award for the outstanding junior high group after Dr. Sen.

Dr. Sen also was actively involved in the Radiation Safety Committee where his concern for his fellow man showed in his detailed attention to the problems which the radiation from nuclei can bring to research workers who may be somewhat unwary.

Dr. Sen had been invited to discuss his research work at many conferences both on this continent and in Europe. Dr. Sen will be missed in the international physics community.

In this department where he has worked so hard and so well he will be remembered for his enthusiasm, his courteous affability and his sincere concern for the welfare of others.

PROFESSOR MORLEY JAMES ORETZKI

Morley Oretzki was a graduate of our University. He obtained his first degree in 1932 and two years later, after working with Dr. Frank Allen, the first Professor of Physics at this University, he earned a Master's degree. Following this he was awarded an M.A. from the University of Toronto in 1939, and a Ph.D. in Physics from Cornell University in 1942.

Dr. Oretzki spent some years as a meteorologist with the federal Department of Transport and then returned to Winnipeg and was involved in the construction industry. In 1964, he came to the University as a lecturer in the Department of Physics and a year later was promoted to Assistant Professor. In 1966 he became the Assistant Head of the Department, a post which he retained throughout his service to the University. In 1977, Dr. Oretzki was nominated by the University and received the Queen's Jubilee Medal. Dr. Oretzki was planning to retire as a Professor of Physics in August of this year but these plans were cut short by his sudden death in February, 1978.

Dr. Oretzki made important contributions to the Department and to the University in many areas, but his exceptional contribution was in the teaching of students in the first year Physics program. He became well known to many students who received from him patient and considerate help with their problems both in Physics and in adjusting to university life. The door to his office was always open and the encouragement that students received helped them to achieve their full potential. Sometimes when his office was crowded, a student would be asked to consolidate his recently acquired knowledge of a Physics problem by teaching it to another student who came in a bit later. Many students in the professional faculties of this University remember Dr. Oretzki's help with gratitude. A measure of the high regard in which he was held is the large number of students who dropped in to see him long after their Physics studies were completed.

MEMORIAL TO E. HAROLD CHARLESWORTH

E. Harold Charlesworth was born in 1904 at the town of Morpeth, Ontario, where his father had a medical practice. He attended Ontario College of Education and taught school in rural Ontario, where he met and married another teacher, Ivey Robson. While teaching, he used the summers to begin studies at Queen's University, where he received the B.A. in 1930 and the M.A. in 1931. In his master's year he won the prestigious 1851 Exhibition Scholarship to Oxford University, where he received the D. Phil. in 1933 under the direction of the future Nobel prizewinner Sir Robert Robinson.

He then returned to Queen's University as a lecturer, doing research at the National Research Council during the summers. He came to the University of Manitoba as a lecturer in 1937 and rose through the ranks to full professor by 1952. After a year of post-retiral appointment he retired in 1970.

During his years at this University, Dr. Charlesworth was a dedicated teacher, who always taught the introductory course in organic chemistry and the final course in the Honours program. He maintained his interest in high school teaching, and was for many years chairman of the Chemistry Committee of the High School Examination Board and adviser to the Manitoba Department of Education on chemistry curricula. He was also a long-time member of the Selection Committee for the Faculty of Medicine.

His research interests covered various aspects of synthetic organic chemistry and he published over twenty-five papers on this subject during a period when research funds were scarce and our graduate school was very small. He is affectionately remembered as a kind and helpful research director by the former graduate students who worked with him.

His principal hobby was stamp collecting. He had a fine collection and he frequently entertained his classes with displays of stamps commemorating various scientific events and personalities pertaining to his lecture material.

Less than a year after his retirement, Dr. Charlesworth suffered a partially paralyzing stroke, and he remained a semi-invalid until his death on February 22, 1978. This Faculty extends its sympathy to his wife, his three children - Kenneth, Clifford and Carolyn - and his grandchildren, several of whom have been, or are presently, students in this Faculty.

- G. E. Dunn

GED/jn
31/3/78

THE UNIVERSITY OF MANITOBA

Inter-Departmental Correspondence

DATE March 22,1978

TO All members of the Faculty Council of Science

FROM G. Richardson, Secretary

SUBJECT:

The thirty-fourth meeting of the Science Faculty Council has been called for March 31, 1978 and April 5, 1978* at 2:40 p.m. in room 207 Buller Building.

A G E N D A

1. Memorials for Drs. M.J. Oretzki and E. H. Charlesworth.
2. Approval of the Minutes of the thirty-third meeting.
3. Matters Arising Therefrom:
   (i) Status of the faculty budget.
4. Communications.
5. Elections to Senate, Executive Committee and Board of Graduate Studies (material attached).
6. Discussion of the proposed changes to the faculty's entrance requirements.
7. Further discussion of the proposed new degrees for the faculty.
8. Report from the Executive Committee.
9. Report from Senate.
10. Other Business.

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encls.

* Rule V 1 (a) of the Faculty Council By-laws requires that two meetings be called for business of substantive policy matters.

Dr. R. D. Connor
Dean of Science
Machray Hall