813. Advanced Biochemistry  
   Spring. 4(4-0) 512.  
   Continuation of 812.

855. Special Problems  
   Fall, Winter, Spring, Summer. Variable credit.  
   May re-enroll for a maximum of 12 credits.  
   Approval of department.  
   Consideration of current problems.

899. Research  
   Fall, Winter, Spring, Summer. Variable credit.  
   Approval of department.

952. Plant Physiology and  
   Biochemistry I  
   Winter of even-numbered years. 3(3-0)  
   Approval of department. Interdepartmental  
   with the Botany and Plant Pathology  
   Department.

955. Plant Physiology and  
   Biochemistry II  
   Winter of even-numbered years. 3(3-0)  
   Approval of department. Interdepartmental  
   with the Botany and Plant Pathology  
   Department.

960. Selected Topics in Biochemistry  
   Fall, Winter, Spring, Summer. 1(1-0)  
   or 2/2(0)  May re-enroll for a maximum of 6  
   credits if a different topic is taken.  
   Approval of department.

999. Research  
   Fall, Winter, Spring, Summer. Variable credit.  
   Approval of department.

BIOPHYSICS — Descriptions of Courses

211. General Biology  
   Winter, Spring. 4(4-2) CEM 130 or  
   high school chemistry. Not open to students  
   with credit in LBC 140.

212. General Biology  
   Fall, Spring. 4(4-2) Not open to  
   students with credit in LBC 114.  
   Continuation of 211.

401. Biological Science for Teachers  
   Fall. 4(3-3) Bachelor's degree.  
   Designed to show the nature of biological  
   science in both its empirical and conceptual  
   aspects. Emphasis is placed on life processes.  
   The theories of the gene and of evolution are  
   stressed. Microscopy and micromorphology  
   are covered as well as the topics of reproduc­ 
   tion, metabolism, physiology, nutrition, enzymes,  
   taxonomy and ecology. Quantitative develop­ 
   ments are included whenever possible.

402. Biological Science for Teachers  
   Fall, Winter. 4(3-3) 401.  
   Continuation of 401.

403. Biological Science for Teachers  
   Spring. 4(3-3) 402.  
   Continuation of 402.

410. Biotic and Environmental  
   Relationships  
   Summer. 6 credits. Approval of de­ 
   partment. Glean at W. K. Kellogg Biological  
   Station.

420. Seminar in Recent Advances in  
   Biological Science  
   Fall, Winter, Spring, Summer. 3(3-3)  
   or 2/2(0)  May re-enroll for a maximum of 6  
   credits if a different topic is taken.  
   Approval of department.

421. Seminar on Man, "The Human  
   Organism"  
   Fall, Winter, Spring, Summer. 3(3-3)  
   Approval of department.

800. Problems in Biological Science  
   Fall, Winter, Spring. Variable credit.  
   B.S. degree in biological science.

899. Research  
   Fall, Winter, Spring. Variable credit.  
   M.S. degree in biological science or equivalent.  
   Research in some phase of biological science,  
   data to form the basis for the thesis required  
   for the doctoral degree in biological science.

Salient features of biophysics, methods and prin­ 
   ciples. Structure and organization of biological  
   materials, bioceramics, radiation biophysics,  
   biologic phenomena, biomembranes and psycho­ 
   physics.

499. Independent Study  
   Fall, Winter, Spring, Summer. 1 to 5  
   credits. May re-enroll for a maximum of 15  
   credits. Approval of department.  
   Undergraduate research under one of our  
   faculty.

804. Experimental Biophysics  
   Winter of even-numbered years. 3 credits.  
   Approval of department.

805. Experimental Biophysics  
   Winter of even-numbered years. 3  
   credits. Approval of department.  
   Electrophysical and physical properties of  
   significant biological molecules and struc­ 
   tures.

806. Experimental Biophysics  
   Spring of even-numbered years. 3  
   credits. Approval of department.

821. Molecular Biophysics  
   Fall of odd-numbered years. 3 credits.  
   Approval of department.

822. Charge Transport and Solid  
   State Processes  
   Winter of even-numbered years. 4(3-2)  
   Approval of department.

823. Radiation Biophysics  
   Spring of even-numbered years. 3(2-2)  
   Approval of department.

824. Membrane Biophysics  
   Winter of even-numbered years. 4(3-2)  
   Approval of department.

825. Basic Neurobiology  
   Winter of odd-numbered years. 4(3-2)  
   Approval of department.

A comparative survey of fundamental principles  
   of nervous organization will be undertaken in  
   lectures. Laboratory will emphasize examina­ 
   tion of prepared neuroanatomical material and  
   a demonstration of important neurophysiological  
   phenomena.

826. Biophysics of Perception and  
   Learning  
   Spring. 4(3-2) Approval of depart­ 
   ment.

Lectures will consider sensory systems, includ­ 
   ing transduction, coding and information  
   processing. Muscle contraction, muscle control,  
   learned and unlearned behavior will be consid­ 
   red. Laboratory will include neural recording and  
   behavioral observations.