SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

New Course Request

SDSU	**Natural Sciences / Chemistry & Biochemistry**
Institution	**Division/Department**
Dennis D. Hedge	4/27/2019
Institutional Approval Signature	**Date**

Section 1. Course Title and Description

Prefix & No.	Course Title	Credits
CHEM 467	Essentials of Glycobiology	3
CHEM 567	Essentials of Glycobiology	3

Course Description

This course focuses on glycobiology, the field of science that studies the structure, biosynthesis, biology, and evolution of saccharides (sugar chains or glycans) that are found in all living life systems. This course with will include the following topics: general principles of carbohydrates and carbohydrate chemistry, structure and biosynthesis, glycans in evolution and development, glycan binding proteins, the role of glycans in complex biological systems, glycans in physiology and disease, and various chemical techniques in which to analysis or manipulation glycans. Special emphasis will be placed on understanding the role glycans play in cancer biology and progression.

Pre-requisites or Co-requisites

Prefix & No.	Course Title	Pre-Req/Co-Req?
CHEM 360 OR CHEM 464	Chemistry of Biological Macromolecules Biochemistry I	Pre-req

Registration Restrictions

None

Section 2. Review of Course 792 reW*nBT/TT0 5.04 Tf72.024 289.633h7 (e 792 re03 reW*n

3.2. Existing program(s) in which course will be offered: Biochemistry (B.S.), Chemistry (B.S.)
3.3. Proposed instructional method by university: R - Lecture
3.4. Proposed delivery method by university: 001 – Face to Face Term Based Instruction
3.5. Term change will be effective: Fall 2019
3.6. Can students repeat the course for additional credit? Yes, total credit limit: No
3.7. Will grade for this course be limited to S/U (pass/fail)? Yes

Rachel Willand-Charnley, Assistant Professor, Ph.D.

7. Note whether adequate facilities are available and list any special equipment needed for the course.
   No special equipment is needed and adequate facilities are available.
8. Note whether adequate library and media support are available for the course.
   Yes, the Briggs Library has (electronic) subscriptions to relevant scientific journals which would support this course.
9. Will the new course duplicate courses currently being offered on this campus? Yes No
10. If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined.
    N/A