APPLICATION FOR NEW COURSE

1. College of Allied Health Professions Date 9/25/01

Department/Division offering course: Clinical Sciences/Clinical Laboratory Sciences

3. Proposed designation and Bulletin description of this course:

b. Prefix and Number CSC 617  
b. Title* Repro Micro & Immuno

*NOTE: If the title is longer than 24 characters (including spaces), write a sensible title (not exceeding 24 characters) for use on transcripts

c. Lecture/Discussion hours per week 1  
d. Laboratory hours per week 0

e. Studio hours per week n/a  
f. Credits 1

g. Course Description: A review of basic immunology will be covered including an overview of the organs, tissues and cells that comprise the immune system, different forms of immunity and the basis of the immune response. The reproductive immunology segment will focus on antibodies associated with infertility and reproductive failure, and also will include properties of the immune system during pregnancy. Microbiology will be covered as it pertains to assisted reproductive technology, focusing on: (1) causes of infertility and reproductive failure; (2) infectious agents that may be transmitted in the assisted reproductive technology (ART) laboratory and (3) prevention of contamination in the ART facility.

i. Prerequisites (if any) CSC 528, CSC 615 or consent of instructor

i. May be repeated to a maximum of N/A (if applicable).

4. To be cross-listed as

Prefix & No. Signature, Chairman, cross-listing department

5. Effective Date: Fall, 2002 (semester and year)

6. Course to be offered Fall x  
Spring __  
Summer x

7. Will the course be offered each year? Yes x  
No ___
(Explain if not annually)

9. Why is this course needed? Requirement for the Reproductive Laboratory Science (RLS) track in the Master of Science in Clinical Science.

9. a. By whom will the course be taught? Doris J. Baker, Ph.D.

b. Are facilities for teaching the course now available? Yes x  
No___
If not, what plans have been made for providing them?

11. What enrollment may be reasonably anticipated? 15
11. Will this course serve students in the Department primarily? Yes x No __

Will it be of service to a significant number of students outside the Department? Yes __ No x
If so, explain

Will the course serve as a University Studies Program course? Yes __ No x
If yes, under what Area?

12. Check the category most applicable to this course

☐ traditional; offered in corresponding departments elsewhere;

☐ relatively new, now being widely established

☐ not yet to be found in many (or any) other universities

14. Is this course part of a proposed new program? Yes __ No x
If yes, which?

18. Will adding this course change the degree requirements in one or more programs? Yes x No __
If yes, explain the change(s) below.
Requirements for the Reproductive Laboratory Science (RLS) track in the Master of Science in Clinical Science will change. The addition of this, and other distance learning courses, will make the program more accessible and increase student enrollment.

15. Attach a list of the major teaching objectives of the proposed course and outline and/or reference list to be used.

Objectives: By the end of the course, the student will demonstrate that he/she will/can:
- Define basic immunology terms (examples: antibody, immunoglobulin, hapten)
- State organs, tissues and cells that comprise the immune system.
- Compare and contrast innate and adaptive immunity and discuss the mechanisms of defense each exhibits.
- Distinguish passive, active and adoptive forms of specific immunity.
- Draw the structure of an immunoglobulin, label functional parts.
- Describe the classes of immunoglobulins, including general structure, primary function and location.
- Describe the steps in antigen processing.
- Discuss the role of complement in an immune response.
- Describe antigen-antibody binding and list methods of detection.
- Discuss the immune response as related to implantation and early development in humans.
- Explain why men do not have an immunological response to spermatozoa.
- Discuss antisperm antibodies as a cause of infertility and fetal loss.
- Distinguish microagglutinating, cytotoxic and immobilizing antisperm antibodies and determine the appropriate diagnostic testing for each.
- Describe treatments for anti-sperm antibodies in both the male and the female.
- Discuss the use of serological methods for the detection of infectious disease. Give examples for organisms associated with infertility and reproductive failure.
- Reproduce a flow chart for the general classification of microorganisms (prions, viruses, bacteria, fungi, protozoa); include basic organism characteristics initial steps for identification.
- List normal flora for the male and female genitourinary tracts.
List specific organisms associated with infertility and reproductive failure, including genital ulcer diseases, HVP infections, vaginitis syndromes, urethritis, cervicitis, prostates syndromes, and blood borne pathogens. For each organism, include a brief background, epidemiology, mode of transmission, clinical picture and diagnosis, laboratory diagnosis, preferred testing and treatment.

Describe the preferred methods to prevent contamination in the ART lab, focusing on sterility, sterile technique, and sterilization methods types; potential toxicity of agents used for cleaning and disinfection should be included.

List infectious agents that may be transmitted in the ART lab, and give the likely mode of transmission.

Outline methods to prevent contamination and transmission of infectious agents in the ART laboratory, including screening for patients and donors and routine laboratory surveillance.

Using information from CSC 528, identify organisms associated with reproductive failure.

Based on case studies, distinguish normal flora from pathogenic organisms in specimens from the male and female genito-urinary tracts.

Based on accuracy, accessibility, and cost, determine the preferred testing for each of the organisms associated with infertility and reproductive failure.

16. If the course is a 100-200 level course, please submit evidence (e.g., correspondence that the Community College System has been consulted. N/a

17. Within the Department, who should be contacted for further information about the proposed course?

Name  Doris J. Baker, Ph.D.                        Phone Extension 323-1100 ext. 241

*NOTE: Approval of this course will constitute approval of the program change unless other program modifications are proposed.
Signatures of Approval:

Department of Chair: ______________________________ Date: __________

Dean of the College: ______________________________ Date: __________

Date of Notice to the Faculty: ________________

*Undergraduate Council: ______________________________ Date: __________

*University Studies: ______________________________ Date: __________

*Graduate Council: ______________________________ Date: __________

*Academic Council for the Med Center: ______________ Date: __________

*Senate Council: ______________________________

Date of Notice to Univ. Senate: ________________

*If applicable, as provided by the Rules of the University Senate

ACTION OTHER THAN APPROVAL: