APPLICATION FOR NEW COURSE

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

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

4. Proposed designation and Bulletin description of this course:
   c. Prefix and Number CSC 618  
   b. Title*  Labs in Andro, 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  0  
   d. Laboratory hours per week 2-3
   e. Studio hours per week n/a  
   f. Credits 1

   g. Course Description:
      Andrology: Student laboratories will focus on semen analysis, sperm function tests, and preparation of partner and donor semen for artificial insemination. Advanced andrology procedures, including the sperm penetration assay and the hemi-zona assay, will be discussed and protocols provided. Reproductive Immunology: Students will perform procedures for detecting antisperm antibodies in semen and in serum. Sperm-cervical mucus testing and cross-testing will be performed using controlled donor semen and bovine cervical mucus. Reproductive Microbiology: Organisms associated with sexually transmitted diseases, infertility, and reproductive failure will be demonstrated with representative demonstrations consisting of: stained slide of bacteria, fungi and parasites and electron micrographs of viruses; organisms on appropriate culture media; examples of testing for identification. Students will use data from the demonstrations to develop summaries for the correct isolation and identification of these organisms.

   j. Prerequisites (if any)  CSC 528, CSC 615, CSC 616, and CSC 617 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:  Summer, 2002  (semester and year)

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

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

10. 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?

12. What enrollment may be reasonably anticipated?  10
11. Will this course serve students in the Department primarily? Yes ☑ No  
   Will it be of service to a significant number of students outside the Department? Yes ☐ No ☑  
   If so, explain  

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  

13. Is this course part of a proposed new program? Yes ☑ No ☐  
   If yes, which?  

15. Will adding this course change the degree requirements in one or more programs? Yes ☑ 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 modular-based laboratory  
   course will make the  
   RLS program more accessible and increase the number of students enrolling.  

20. 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:  

   - Perform a comprehensive semen analysis acceptable for fertility diagnosis.  
   - Perform basic and complete morphology based on Strict Criteria; be familiar with other  
     classification systems including WHO.  
   - Prepare a semen specimen for artificial insemination using two different methods.  
   - Perform all calculations for a sperm fraction concentration.  
   - Discuss advanced andrology procedures designed to detect: capacitation; acrosome reaction; zona  
     binding; sperm penetration.  
   - Perform screening assays for antisperm antibodies  
   - Perform direct and indirect testing for antisperm antibodies.  
   - Interpret a post-coital test.  
   - Perform sperm-cervical mucus testing and cross-testing.  
   - Interpret the sperm-cervical mucus cross test to determine which partner(s) are contributing to the  
     infertility problem. Set-up and perform quality assurance for the reproductive immunology  
     laboratory.  
   - Demonstrate methods to prevent contamination and transmission of infectious agents in the ART  
     laboratory.  
   - 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.

Set-up and perform quality assurance for the andrology laboratory and for the reproductive immunology and reproductive microbiology labs.

21. 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

22. 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: