UNIVERSITY OF KENTUCKY

CSC 630

The Graduate School
351 Patterson Office Tower
Lexington, KY 40506-0027
(859) 257-4613
Fax: (859) 323-1928
www.rgs.uky.edu/gs/

TRANSMITTAL

JAN 1 2 2003

DATE: January 7, 2004

TO: Rebecca Scott
Senate Council

FROM: Lissa Holland
Graduate Council

The Graduate Council met on November 20, 2003 and approved the following:

COLLEGE OF ENGINEERING

Computer Science

CSC 630 RLS Research for M.S. (3-5 credits)

Research projects for students in Reproductive Laboratory Science will be registered under this course. Projects should be related to the student's individual interest and should be under the supervision of the appropriate faculty member.

Prerequisite: completion of the CSC core courses; additional CSC RLS courses dictated by the research project.

Change to:

CSC 630 RLS Research (1-5 credits)

Research projects for students in Reproductive Laboratory Science. Students will complete web-based modules, "The Scientific Method and the Art of Research" prior to project initiation. Projects should be related to the student's individual interest and should address an area in reproductive laboratory science. Projects should be under the supervision of a faculty member with expertise in the project area.

Prerequisites: CSC 528, CSC 615, CSC 616, and CSC 617 or consent of instructor. Additional CSC courses in the RLS track may be required as prerequisites depending on the nature of the research project.

M E M O R A N D U M

TO: James W. Holsinger, Jr., M.D.. Chair
Medical Center Academic Council
Deans, Department Chairs, and Members of the Senate

FROM: Sharon R. Stewart, Ed.D.
Acting Associate Dean, College of Health Sciences

TOPIC: Application for Change in Existing Course – CSC 630: RLS Research for MS

DATE: March 21, 2003

The College of Health Sciences recommends for your approval the following change in an existing course:

CSC 630: RLS Research for MS

***Proposed Change*:** Change from 3-5 credits to 1-5 credits.

Rationale: The present requirement that this be a 3-5 credit hour course is limiting to the students who wish to take the course for 1 or 2 credits due to scheduling and availability of other courses. This situation has already been an issue. We do not want to over burden students or discourage those who already taking a full course load but who would like to begin their research. The proposed change does not affect the minimum total number of CSC 630 credits required (3 cr. hr. minimum or more depending on the individual student), and the course can be repeated.

Contact person: Doris J. Baker, Ph.D.
Ph.: 323-1100, ext 80854

UNIVERSITY OF KENTUCKY
APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR & MINOR

1. Submitted by College of Health Sciences Date 2/12/03

   Department/Division offering course Clinical Sciences

2. Changes proposed:
   (a) Present prefix & number CSC 630 Proposed prefix & number CSC 630

   (b) Present Title RLS Research for M.S.

   New Title RLS Research

   (c) If course title is changed and exceeds 24 characters (Including spaces), include a sensible title (not to exceed 24 characters) for use on transcripts:

   (d) Present credits: 3-5 Proposed credits: 1-5

   (e) Current lecture: laboratory ratio n/a Proposed:

   (f) Effective Date of Change: (Semester & Year) Fall, 2003

3. To be Cross-listed as: _____ _____
   Prefix and Number Signature: Department Chair

4. Proposed change in Bulletin description:
   (a) Present description (including prerequisite(s):
   Research projects for students in Reproductive Laboratory Science will be registered under this course. Projects should be related to the student's individual interest and should be under the supervision of the appropriate faculty member. Prerequisite: completion of the CSC core courses; additional CSC RLS courses dictated by the research project.

   (b) New description:
   Course Description: **CSC 630 RLS Research: 1-5 credit hours. Prerequisites:** CSC 528, CSC 615, CSC 616, and CSC 617 or consent of instructor. Additional CSC courses in the RLS track may be required as prerequisities depending on the nature of the research project**.** Students will complete web-based modules, "The Scientific Method and the Art of Research" prior to project initiation. Projects should be related to the student's individual interest and should address an area in reproductive laboratory science. Projects should be under the supervision of a faculty member with expertise in the project area.

   (c) Prerequisite(s) for course as changed: CSC 528, CSC 615, CSC 616, CSC 617 or consent of instructor. Addition CSC courses in the RLS track may be required depending on the nature of the research project.

5. What has prompted this proposal?
   CSC 630 is presently offered as 3-5 credit hour course. We have found that this credit hour range limits flexibility in scheduling to meet student needs. Changing the variable credits to 1-5 hours would allow creative scheduling sequencing. This would allow students to begin projects early or to extend projects. Grading is based on **minimum requirements** in the program (**3 credit hours minimum for research**).

6. If there are to be significant changes in the content or teaching objectives of this course, indicate changes:
   N/A

UNIVERSITY OF KENTUCKY
APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR & MINOR

7. What other departments could be affected by the proposed change?
N/A

8. Is this course applicable to the requirements for at least one degree or certificate at the University of Kentucky? ☒ Yes ☐ No

9. Will changing this course change the degree requirements in one or more programs?* ☐ Yes ☒ No
If yes, please attach an explanation of the change.*

10. Is this course currently included in the University Studies Program? ☐ Yes ☒ No
If yes, please attach correspondence indicating concurrence of the University Studies Committee.

11. 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

12. Is this a minor change? ☐ Yes ☒ No
(NOTE: See the description on this form of what constitutes a minor change. Minor changes are sent directly from the Dean of the College to the Chair of the Senate Council. If the latter deems the change not to be minor, it will be sent to the appropriate Council for normal processing.)

13. Within the Department, who should be consulted for further information on the proposed course change?

Name: Doris J. Baker, Ph.D. Phone Extension: 323-1100 X 80854

*NOTE: Approval of this change will constitute approval of the program change unless other program modifications are proposed.
**If applicable, as provided by the Rules of the University Senate.

The Minor Change route for courses is provided as a mechanism to make changes in existing courses and is limited to one or more of the following:

a. change in number within the same hundred series;
b. editorial change in description which does not imply change in content or emphasis;
c. editorial change in title which does not imply change in content or emphasis;
d. change in prerequisite which does not imply change in content or emphasis;
e. cross-listing of courses under conditions set forth in item 3.0;
f. correction of typographical errors. [University Senate Rules, Section III - 3.1]

CSC 630 – RLS RESEARCH

PROFESSOR: Doris J. Baker, Ph.D.
PHONE NUMBER: (859) 323-1100 ext. 80854
E-MAIL dbake0@uky.edu
PROFESSOR: Chem-yong Ko, Ph.D.
PHONE NUMBER: (859) 323-1100 ext. 80846
E-MAIL cko@uky.edu
ED. COORDINATOR: Kim Campbell M.S., MT(ASCP)
PHONE NUMBER: (859) 323-1100 ext. 808535150
E-MAIL kkcamp1@.uky.edu

Course Description: **CSC 630 RLS: 1-5 credit hours. Prerequisites:** CSC 528, CSC 615, CSC 616, and CSC 617 or consent of instructor. Additional RLS courses may be required as prerequisities depending on the nature of the research project**.** Students will complete a web-based modules, "The Scientific Method and the Art of Research". Projects should be related to the student's individual interest and should be under the supervision of the appropriate faculty member.

Objectives: By the end of the course, the student will demonstrate that he/she will/can: At the end of this course the student should be able to:

- Describe the components of the scientific method to include to include formulating the research question and hypothesis development
- Demonstrate an understanding of basic research principles
- Conduct a thorough search of the scientific literature
- Evaluate literature Select a research project Complete an IRB application if required
- Determine steps to complete defined project
- Outline laboratory procedures for project
- Determine statistical analysis for research project
- Conduct laboratory work under direction of advisor
- Maintain appropriate records for collected data
- Analyze data
- Work with advisor to determine best way to present data
- Report preliminary results
- Report final results
- Write research paper

REFERENCES:
Books:

Assisted Reproductive Technologies: Analysis and Recommendations for Public Policy. The New York Task Force on Live and the Law. New York, New York.
April, 1998.

An Atlas of Human Gametes and Conceptuses. Lucinda L. Veeck. Parthenon Publishing. New York. 1999.

Basic Techniques in Clinical Laboratory Science. Third edition. Jean Jorgenson Linne and Karen Munson Ringsrud. Mosby - Yearbook, Inc. St. Louis. 1992.

Diagnostic Microbiology 10th. Ed. Bailey & Scott. Mosby Publishing Co. St. Louis, MO. 1998.

Fertility and Reproductive Medicine. Editors: R.D. Kempers, J. Cohen, A.F. Haney and J.B. Younger. Elsevier. Amsterdam. 1998.

Gamete and Embryo Quality. Edited by L. Mastroianni, Jr., H.J.T. Coelingh Bennick, S. Suzuki and H.M. Vemer. Parthenon Publishing. New York. 1994.

Handbook of andrology, American Society of Andrology, Lawrence Kansas. Robarie, R Pryor, J, Terasler JM, Editors. Allen Press, Lawrence Kansas, 1992.

Handbook of Assisted Reproduction Technology. Ed. by Brooks A. Keel, Jeffrey V. May * Christopher J. DeJonge. CRC Press. Boca Raton. 2000.

Handbook of In Vitro Fertilization. Second Edition. Edited by Alan O. Trounson and David K. Gardner. CRC Press. Boca Raton. 1999.

Handbook of the Laboratory Diagnosis and Treatment of Infertility. B.A. Keel and B.W. Webster. CRC Press. Boca Raton. 2000.

Molecular Biology of the Cell, Alberts et al. Garland Publishers, New York, NY. latest edition.

Scientific Essentials of Reproductive Medicine. Editors: SG Hillier, HC Kitchener, JP Neilson. W.B. Saunders. Philadelphia. 1996.

In Vitro Fertilization. Second edition. Kay Elder and Brian Dole. Cambridge University Press, 2000.

Practical Laboratory Andrology. David Mortimer. Oxford University Press. New York. 1994.

Scientific Essentials of Reproductive Medicine. Editors: SG Hillier, HC Kitchener, JP Neilson. W.B. Saunders. Philadelphia. 1996.

The Use of Testicular and Epididymal Sperm in IVF. Edited by Kay Elder and Thomas Elliott. World Wide Conferences on Reproductive Biology. Ladybrook Publishing, 1998.

WHO Laboratory Manual for the Examination of Human Semen and Sperm-Cervical Mucus Interaction. 3rd. Edition. Patrick J. Rowe, Frank H. Comhaire, Timothy B. Hargreave and Heather J. Mellows. World Health Organization.. Cambridge University Press. Cambridge. 1992.

WHO Laboratory Manual for the Examination of Human Semen and Sperm-Cervical Mucus Interaction. Fourth Edition. World Health Organization.. Cambridge University Press. Cambridge. 1999.

WHO Manual for the Standardized Investigation and Diagnosis of the Infertile Couple. . World Health Organization. Fourth Edition. Cambridge University Press. Cambridge. 1992.
WHO Manual for the standardized investigation, diagnosis and management of the infertile male. World Health Organization. Cambridge University Press. Cambridge. 2000.

Videos:

Sperm Prep, Produced by Fertility Technologies, Inc., Natick, Ma.

Laboratory to Life; the Art and Science of Embryology; Produced by Serono Labs, Norwell, MA, 1994

CD-ROMS

Reproductive Microbiology. Doris J. Baker and Julie A. Ribes. University of Kentucky. (In progress).

PUBLIC BILLS AND LAWS

1. United States Congress. House of Representatives. Committee on Energy and Commerce. Subcommittee on Health and the Environment. Hearing on H.R. 3940, A Bill to Provide for the Certification of Embryo Laboratories. Washington, D.C. : U.S. Government Printing Office, 1992.
2. Public Law #102-493, The Fertility Clinic Success Rate and Certification Act of 1992. 102nd Congress, Second Session, 1992.
3. Department of Health and Human Services, HCFA Public Health Service, HCFA Public Health Service, et al. Clinical laboratory Improvement Act of 1988, Final Rule (42 CFA 405), Federal Register, Part II, February 28, 1992.
4. CDC Implementation Plan, May 22, 1996. Centers for Disease Control and Prevention; Implement of the Fertility Clinic Success Rate and Certification Act of 1992.
5. United States Congress. Office of Technology Assessment. Artificial insemination practice in the United States; summary of 1987 Survey [OTA ABP-BA-48], Washington, D.C. U.S. Government Printing Office, 1988.

GUIDELINES, **WORKSHOP SUMMARIES, ACCREDITATION PROGRAMS**

1. OSHA Directory U.S. Dept. Of Labor Occupational Safety and Health Administration Regional Offices. Bloodborne Pathogens. Boston: Jones and Bartlett Publishers, 1993.
2. College of American Pathologists and American Fertility Society, College of American Pathologists Reproductive Laboratory Accreditation Program, Chicago: CAP, Publishers 1992.
3. American Fertility Society Post-Graduate Course. Accreditation of andrology and ART laboratories: understanding the legislation, administration and implementation. Montreal, Canada, AFS, 1993.

4. American Society of Clinical Pathologists and the College of American Pathologists. CLIA '88. The final rules. Chicago: CAP Publisher, 1992.
5. Archives of Pathology & laboratory medicine. Arch Pathol Lab Med Vol 116, April, 1992.
6. College of American Pathologists and the American Fertility Society. Reproductive
7. Laboratory Accreditation Program. Standards for Accreditation. Chicago: CAP, publisher, 1992.
8. Guidelines of Human Embryology & Andrology Laboratories. The AFS Soc. Fertil Steril. 1992; 58 (supplement 1).
9. New Guidelines for the Use of Semen Donor Insemination: 1990. The AFS. Fertil Steril. 1990;53(supplement 1).
10. Guidelines for Gamete Donation: 1993. The American Fertility Society. Fertil Steril 1993;59 (Sup)

Guidelines and newsletters as applicable:

1. American Society for Reproductive Medicine Newsletter
2. The American Fertility Society Guidelines for Practice
3. ASRM Net News
4. Androlog
5. EmbryoMail
6. ARTlog
7. Kaiser Newsletter
8. Alpha International
9. FertiNet

Journals:
American Journal of Obstetrics & Gynecology
American Journal of Reproductive Endocrinology
Andrologoia
Biology of Reproduction
Clinical Obstetrics & Gynecology
Contraception
Development
Developmental Biology
Endocrinology Reviews
Fertility & Sterility
Gamete Research
Human Reproduction
International Journal of Developmental Biology
Journal of the American Medical Association
Journal of Andrology
Journal of Assisted Reproduction
Journal of Reproduction & Fertility
Journal of Assisted Reproduction & Genetics
Journal of Clinical Endocrinology & Metabolism
Journal of In Vitro Fertilization & Embryo Transfer
Journal of Microbiology
Journal of Reproduction and Fertility
Journal of Reproductive Medicine

Molecular Human Reproduction
Molecular Reproductive Development

Grading: CSC 630

Assignments – web module	10%
Literature search	10%
Seminar report on preliminary results	20%
Research paper	60%

Grading Scale:
90-100% = A
80-89% = B
70-79% = C
below 70% = E

Course Policies:

- Observe all safety guidelines for research laboratory
- Keep all appointments with research advisor