Cover Sheet for Student Learning Outcomes

Directions: For each program (e.g., degree, certificate, minor, secondary major, etc.) and level (undergraduate and graduate), please complete separate cover sheets. Feel free to make copies of this sheet if needed. Those graduate programs with an integrated master's and doctoral program may provide one set of cover sheets.

Department / Unit: Interdepartmental

Title of Academic Program: Genetics

Faculty contact(s) for the list of student learning outcomes for this academic program:

Dr. Barbara Valent

Type of Degree (check one):

- ☐ Bachelor's
- ☐ Master's
- ☒ Ph.D.
- ☐ Ed.D.
- ☐ U. Certificate
- ☐ Minor
- ☐ Secondary major
- ☐ Associate
- ☐ G. Certificate
- ☐ Joint Degree (list the degree types): _____
- ☐ Other: _____

List of Student Learning Outcomes for this Degree Program

Please provide an attached list of learning outcomes or copy and insert them below.

Students obtaining a PhD in the Genetics Interdepartmental Program will:

1. Understand the basic processes of classical, molecular, developmental, population and evolutionary genetics and cytogenetics of prokaryotic and eukaryotic systems, including gene transmission, mutation, expression and regulation (K).
2. Be familiar with the intersection of genetic and genomic sciences and be able to apply genetic/genomic resources in research (K).

RECEIVED
FEB 07 2006

All materials are to be sent to: ***Office of the Provost, 106 Anderson Hall***

3. Be familiar with the principal experimental and theoretical methods used by geneticists and molecular biologists in their studies, and recognize the advantages and limitations of these approaches (K, S).

4. Be able to formulate genetic hypotheses, design experiments and test predictions made by these hypotheses with observed data (S).

5. Become expert in an area of specialization, conceive and perform original genetic research in this area, and prepare results of the research for publication in a scientific journal (S).

6. Demonstrate the ability to acquire new knowledge through critical evaluation of the scientific literature in the area of specific expertise (S).

7. Develop oral and written communication skills that include the ability to publish original research in a scientific journal and to communicate the importance and excitement of genetic research to others outside the field, including those with a limited scientific background (S, A).

8. Understand the historical, social and ethical context in which genetics and genomics have developed and are continuing to develop, and implications that these fields have for society as a whole (A).

9. Demonstrate the capacity to work effectively as part of a team consisting of supervisors, team members, and/or clients with diverse background, ethnicity, skills and interests (A).

Many of the learning outcomes overlap with those for the Genetics Masters Program. However, they will be assessed at a higher level.

Linkage with University-Wide Graduate SLOs:

K = Knowledge
S = Skills
A = Attitudes and Professional Conduct

Please check the description(s) that best reflect the information being submitted.

☐ Faculty for this degree program have met, reviewed, and endorse the list of student learning outcomes being submitted.	Date of Endorsement: July 25, 2005

Barbara Valent
Program Chair's Signature

7-25-05
Date

Dean's Signature

Date

Dean of the Graduate School's Signature
(Required for Graduate Degree Programs)

Date

All materials are to be sent to: ***Office of the Provost, 106 Anderson Hall***