

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 MS in the Genetics Interdepartmental Program will:

1. Understand the basic processes of genetics in 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).

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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. Perform genetic research in an area of specialization. Demonstrate ability to follow instructions; plan and execute experiments; collect information in an organized and timely manner; analyze the data, and draw conclusions regarding the hypothesis being tested (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 research 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 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 PhD Program. However, they will be assessed at a lower level.

Linkage with University-Wide Graduate SLOs:

K = Knowledge

S = Skills

A = Attitudes and Professional Conduct

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

<input type="checkbox"/> Faculty for this degree program have met, reviewed, and endorse the list of student learning outcomes being submitted.	Date of Endorsement: <u>July 25, 2005</u>
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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