

## PLAN OF STUDY Catalog Year 2025-2026 DIAGNOSTIC GENETIC SCIENCES MAJOR

This Plan of Study (plan) is used as a *worksheet* during initial registration and every subsequent semester to determine minimum requirements and progress toward completing the degree.

- In your final year, you will submit a final plan of study electronically through the Student Administration System. For more information, visit the [Registrar's Steps to a Successful Graduation](#).
- Students must complete all major and General Education or Common Curriculum course requirements and earn:
  - **At least 120 credits towards the degree**
  - **At least a 2.0 Cumulative Grade Point Average (CGPA)**
  - **At least a 2.0 Grade Point Average for ALL courses listed in the 36 credit Requirement (Part III).**
- University of Connecticut Common Curriculum Requirements are outlined in the [Undergraduate Academic Catalog](#).
- Students should use their Academic Requirements Report (accessible in Student Admin) along with this Plan of Study to view their graduation requirements and assess status toward degree. Students must be attentive to credit restrictions (repeated courses, out of sequence classes, etc.).
- Courses taken Pass/Fail may NOT be used to meet ANY degree requirements, including major requirements, General Education requirements, or Common Curriculum requirements.
- Students are responsible for knowing and understanding the rules and requirements of their degree. Always refer to the Catalog (linked above) for official regulations and ask your advisor when you need clarification.

### Additional Resources:

<a href="#">Academic Catalog</a> 	<a href="#">CAHNR Academic Policies</a> 	<a href="#">CAHNR Academic Forms</a> 	<a href="#">Sample Course Sequences by Major</a> 
<a href="#">Navigating the Student Admin System</a> 	<a href="#">Navigating HuskyCT</a> 	<a href="#">Academic Achievement Center</a> 	<a href="#">Center for Career Readiness and Life Skills</a> 
<a href="#">The "Q" (Quantitative) Center</a> 	<a href="#">The Writing Center</a> 	<a href="#">Center for Students with Disabilities</a> 	<a href="#">The Dean of Student's Office</a> 

**PART I: COMMON CORE CURRICULUM REQUIREMENTS**

For a full listing of courses within each Topic of Inquiry (TOI), please visit the Common Curriculum page of the Undergraduate Catalog.

[Common Curriculum Requirements – Undergraduate Academic Catalog](#)



**Topics of Inquiry**

Requirements:

- 1. At least three credits must be passed in each Topic of Inquiry (many courses fulfill two TOI).
- 2. Students must also satisfy a Focus requirement by successfully completing either nine credits in a single TOI or nine credits within a Theme (learn more about Themes on the Common Curriculum page of the Undergraduate Catalog – linked above).
- 3. Common Curriculum courses may be counted toward the major.
- 4. Including the Focus requirement, students must pass at least 21 credits of TOI courses.
- 5. The 21 credits of TOI courses must be from at least six different subject areas as designated by subject code (e.g., ANTH). For cross-listed courses, students may count any subject code under which the course is offered toward this requirement regardless of the subject code under which they register for the course.
- 6. Students must complete at least one laboratory course designated as TOI-6L.
- 7. No more than six credits with the INTD prefix may be elected by any student to meet the Common Curriculum Requirements.

<b>TOI-1: Creativity: Design, Expression, Innovation</b>
<b>TOI-2: Cultural Dimensions of Human Experiences</b>
<b>TOI-3: Diversity, Equity, and Social Justice</b>
<b>TOI-4: Environmental Literacy</b>
<b>TOI-5: Individual Values and Social Institutions</b>
<b>TOI-6: Science and Empirical Inquiry</b>
<b>TOI-6L: Science and Empirical Inquiry (Laboratory Course)</b>

TOI	Dept.	Course No.	Credits
TOI-1	_____	_____	_____
TOI-2	_____	_____	_____
TOI-3	_____	_____	_____
TOI-4	_____	_____	_____
TOI-5	_____	_____	_____
TOI-6*	_____	_____	_____

FOCUS REQUIREMENT		
TOI: _____		
-- OR --		
THEME: _____		
Dept.	Course No.	Credits
_____	_____	_____
_____	_____	_____
_____	_____	_____

*\*At least one TOI-6L course is required*

TOI REQUIREMENTS CHECKLIST:

- ☐ At least three credits from each TOI
- ☐ 21 credits (minimum) of TOI coursework
- ☐ TOI credits completed in at least 6 different subject codes (e.g. ANTH)
  - ☐ Subject codes: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_
- ☐ One Laboratory course designated as TOI-6L: \_\_\_\_\_

Competencies

	Description	Dept.	Course No.	Credits
<input type="checkbox"/>	Foreign Languages (3 years single language in high school OR pass second course in first year college sequence)	_____	_____	_____
<input type="checkbox"/>	ENGL 1007 <u>or</u> 1010 <u>or</u> 1011	_____	_____	_____
<input type="checkbox"/>	“W” Course	_____	_____	_____
<input type="checkbox"/>	“W” Course ( <i>within major</i> )	_____	_____	_____
<input type="checkbox"/>	“Q” Course	_____	_____	_____
<input type="checkbox"/>	“Q” Course ( <i>MATH or STAT</i> )	_____	_____	_____

CAHNR Agriculture, Health, and Environment Requirement

Students in the College of Agriculture, Health, and Natural Resources must pass two courses (six credits) from the pre-approved list (find the list of pre-approved courses on the CAHNR Degree Requirements page of the Undergraduate Catalog). Courses must come from two different subject areas.

CAHNR Requirement Pre-Approved Courses List



Dept.	No.	Course Title	Credits
_____	_____	_____	_____
_____	_____	_____	_____

## **PART II: INDIVIDUAL COURSE REQUIREMENTS OF DIAGNOSTIC GENETIC SCIENCES MAJOR**

Courses in this section that are numbered 2000-level or above may also be used to meet the 36 Credit Requirement (Part III).

### ***ALL of the following Mathematics and Sciences:***

Dept.	No.	Course Title	Credits
BIOL	<input type="checkbox"/> 1107	Principles of Biology I	4
CHEM	<input type="checkbox"/> 1124Q & 1125Q	Fundamentals of General Chemistry I and II	_____
	<input type="checkbox"/> <u>or</u> 1127Q & 1128Q	<u>or</u> General Chemistry I and II	
CHEM	<input type="checkbox"/> 2241	Organic Chemistry	3
	<input type="checkbox"/> <u>or</u> 2443		
MATH	<input type="checkbox"/> 1060Q	Precalculus	3
MCB*	<input type="checkbox"/> 2400	Human Genetics	3
	<input type="checkbox"/> <u>or</u> 2410	<u>or</u> Genetics	
MCB*	<input type="checkbox"/> 2610	Fundamentals of Microbiology	4
STAT*	<input type="checkbox"/> 1000Q	Introduction to Statistics I	4
	<input type="checkbox"/> <u>or</u> 1100Q	<u>or</u> Elementary Concepts of Statistics	

\*At least one of these courses must be completed prior to starting the program.

*Writing competency:* Students must pass DGS 4234W.

*Computer Technology Competency:* University entry-level competencies have been reviewed and satisfy all program requirements.

*Information Literacy Competency:* Competencies will be met through successful completion of program major courses.

### **Professional Courses**

All professional courses must be completed with a grade of "C" or better. Professional courses may ONLY be repeated once for a total of two times.

### ***ALL of the following:***

Dept.	No.	Course Title	Credits
AH	<input type="checkbox"/> 2001	Medical Terminology	2
AH	<input type="checkbox"/> 3021	Environment, Genetics, and Cancer	3
AH	<input type="checkbox"/> 3121	Immunology for the Medical Laboratory Sciences	3
AH	<input type="checkbox"/> 4241	Research for the Health Professional	2
DGS	<input type="checkbox"/> 3100	Cytogenetic Technologies	3
DGS	<input type="checkbox"/> 4234W	Diagnostic Molecular Technologies	3
DGS	<input type="checkbox"/> 4235	Laboratory in Molecular Diagnostics	2
DGS	<input type="checkbox"/> 4236	Case Studies in Molecular Pathology	1
MLSC	<input type="checkbox"/> 4500	Laboratory Operations and Professional Practice	2

### ***Four Related Cognates Courses at the 2000-level or above as approved by DGS advisor:***

Dept.	No.	Course Title	Credits
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Molecular Practicum Courses:**

Dept.	No.	Course Title	Credits
DGS	□ 4402	Specimen Preparation, Nucleic Acid Isolation & Assessment	4
DGS	□ 4503	Amplification Methods	6
DGS	□ 4604	Sequencing Techniques and Data Analysis	3
DGS	□ 4850 □ <u>or</u> 4997	Investigative Topics in Laboratory Genetics <u>or</u> Honors Research (Honors students only)	_____
DGS	□ 4510 □ <u>or</u> 4512 □ <u>or</u> 4513 □ <u>or</u> 4515	In Situ Hybridization Methods <u>or</u> Cloning Techniques <u>or</u> Blotting Applications <u>or</u> Microbiological Applications of Molecular Diagnostics	2

### **PART III: 36 CREDIT REQUIREMENT FOR ALL MAJORS<sup>1</sup>**

Each student is required to successfully complete at least 36 credits of courses that are numbered 2000-level or above in or relating to their major. These courses may also be used to meet other requirements. This group of courses must:

1. Total not less than 36 credits
2. Be numbered 2000 or above
3. Be approved by student's advisor and department head
4. Be taken at the University of Connecticut<sup>2</sup>
5. Include two or more departments
6. Include at least 15 credits from departments in the College of Agriculture, Health and Natural Resources
7. Have a combined Grade Point Average of at least 2.0
8. Not include more than 6 credits (combined) of Independent Study, Internship, or Field Studies (if included, these courses must be taken at the University of Connecticut)
9. Not be taken on Pass/Fail (P@ / F@)
10. Not include more than 6 credits of Satisfactory/Unsatisfactory (S/U) coursework

Dept.	No.	Credits
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Dept.	No.	Credits
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Credits from departments in CAHNR (15 required): \_\_\_\_\_

(CAHNR subject codes include AHNH, AH, ANSC, ARE, DGS, DIET, ENVS, EVST, KINS, LAND, MLSC, NRE, NUSC, PLSC, PATH, SPSS)

Total Credits in 36 credit group: \_\_\_\_\_

<sup>1</sup>Courses taken on Pass/Fail may NOT be used to meet any requirements.

<sup>2</sup>**Residence Requirement.** It is expected that advanced course work in the major will be completed at the University of Connecticut. However, students may be eligible to use up-to six credits from other institutions in the 36-credit group if approved by their advisor and department head. These credits must be identified as courses comparable to specific University of Connecticut courses and cannot include internships, special topics, or non-specific discipline credits. Transfer students must complete at least 30 credits of 2000-level or higher course work at the University of Connecticut, including at least 15 credits in College of Agriculture, Health and Natural Resources courses.