CGS Computational Advising Updates

A collaboration between Yellow Cluster Advising & Computer Science Advising

May 11, 2023
Agenda

- Welcome & Introductions
- ECS Course & Scheduling Updates
- Building a Balanced Academic Plan
- CGS Pre-Approved Substitutes
- Q&A
- 1-1 Support
Peer Advisors

Isabella Lee (she/her), CGS Computational

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ECS 32C - Schedule

- Currently offered in Spring Quarter ‘23
- In the future will **ONLY** be offered in Fall Quarter

**Note: Take ECS 32C in your sophomore or junior year**
Beginning **Spring 2023**: CGS students will be able to enroll in **ECS 36A** during **PASS 2** registration.

**Registration Schedule:**
- Pass 1 (17 Units MAX)
- Pass 1 Open Registration
- **Pass 2 (19 Units MAX)**
- Pass 2 Open Registration
- Registration Freeze
- Schedule Adjustment (28.5 Units)

**CGS + limited majors only**
ECS 171
Pre-Reqs

New Pre-Requisites

- ECS 32B or ECS 36C (same as before)
- STA 032 or STA 131A or ECS 132 (new)
- MAT 22A or MAT 27A (new)

**For Fall Quarter, ECS 171 will be open to CGS majors during Pass 1.**
Questions about the ECS Changes?
# Building a Balanced Academic Plan

- **FR/SO:** 2 major courses + 1-2 GE’s/minor/other classes of interest
- **No more than 2 hard-science/math or writing** courses per quarter
- **Variety of subjects/major areas is ideal** (i.e. not all Group B courses)
- **Workload:** 1 unit = 3 hours of work each week (including class time). So if you have 16 units, that equates to 48 hours of class + studying.

## Sophomore
- **ECS 32A** - 4 units (programming)
- **PHI 012** - 4 units (Intro logic)
- **ASA 002** - 4 units (GE)
- **STS 140** - 4 units (GE)

**16 units**

## Junior
- **ECS 32C** - 4 units (programming)
- **PSC 100** - 4 units (Group A)
- **PHI 112** - 4 units (Interm. Logic)
- **LIN 103B** - 4 units (Group E)

**16 units**

## Senior
- **CGS 107** - 4 units (Group A)
- **ECS 170** - 4 units (Group B)
- **PSC 101** - 4 units (Group C)
- **PSC 131** - 4 units (Group F)

**16 units**
90 units

Natural Science & Mathematics (NSM) required

- Check out the NSM List on the College of L&S Degree Requirements
  - In the Area (Breadth) Requirement section
- Strategically select PSC courses for your major requirements.
- Newly approved NSM courses! CGS 107, CMN 150V, LIN 175 & LIN 177
Pre-Approved Substitutions: Preparatory Subject Matter

- **Statistics:**
  - STA 013 - Elementary Statistics
  - STA 032 - Gateway to Statistical Data Science *(Approved Substitute)*
  - STA 100 - Advanced Applied Statistics for the Biological Sciences *(Approved Substitute)*

- **ECS 20:**
  - ECS 20 - Discrete Math for Computer Science
  - ECS 017 - Data, Logic, & Computing *(Approved Substitute)*
  - MAT 108 - Abstract Math *(Approved Substitute)*

- **Calculus:**
  - MAT 17A/B/C - Calculus for Biology & Medicine
  - MAT 21A/B/C - Calculus
  - MAT 19A/B/C - Calculus for Data-Driven Applications *(Approved Substitute)*

- **Linear Algebra & MATLAB:**
  - MAT 22A Linear Algebra + MAT 22AL (1 unit)
  - MAT 27A/BIS 27A Linear Algebra with Applications to Biology
  - MAT 67 Abstract Linear Algebra + MAT 22AL (1 unit) *(Approved Substitute)*
Pre-Approved Substitutions: Upper Division

Group B Computation:

- Please note that **CGS Computational** majors will need **at least one ECS class** to fulfill the Group B requirement.

- **Current Group B Classes** for CGS Computational Emphasis:
  - LIN 177, PHI 133, ECS 120, ECS 170, and ECS 171

- **Additional Options (Substitutions) for Group B for all CGS majors, regardless of admit year:**
  - CMN 150V – Computational Social Science
  - CMN 151 – Simulating Communication Processes
  - CMN 152V – Social Science with Online Data
  - NPB 136 – Neural Networks & Machine Learning in Biology
  - NPB 167 – Computational Neuroscience (rarely offered)
Pre-Approved Substitutions: Upper Division

Group C Neuroscience: (need 1)

- **Current Group C Classes** for CGS Computational Emphasis:
  - LIN 175, PSC 101, PSC 133/CGS 107/ECN 107, PSC 135, PSC 139, and PSC 145

- **Additional Options (Substitutions) for Group C:**
  - PSC 121 – Physiological Psychology
  - PSC 123 – Hormones & Behavior
  - PSC/NPB 124 – Comparative Neuroanatomy
  - NPB 100 – Neurobiology
    - Or NPB 110B – Foundations 2: Neurobiology
  - NPB 143 – Neurobiology & Pathophysiology
  - NPB 161 – Developmental Neurobiology
  - NPB 162 – Neural Mechanisms of Behavior
  - NPB 163 – Systems Neuroscience
  - NPB 164 – Mammalian Vision
  - NPB 165 – Neurobiology of Speech Perception
  - NPB 172 – Map Formation in the Brain
  - NPB 173 – Neurobiology of Brain Disorders
  - NPB 168 Neurobiology of Addictive Drugs
Pre-Approved Substitutions: Upper Division

**Group E Linguistics:** (Need one from D or E)

- **Current Group E Classes** for CGS Computational Emphasis:
  - LIN 103A, LIN 103B, LIN 150, and LIN 182

- **Additional Options (Substitutions) for Group E:**
  - LIN 131 - Intro to Syntactic Theory
  - LIN 141 - Semantics
  - LIN 152 - Language Universals & Typology
  - LIN 171 - Intro to Psycholinguistics
  - LIN/EDU 173 - Language Development
Pre-Approved Substitutions: Upper Division

Group F Psychology: (Need four)

- **Current Group F Classes** for CGS Computational Emphasis:
  - PSC 101, PSC 103A, PSC 103B, PSC 113, PSC 121, PSC 124, PSC 130, PSC 131, PSC 135, PSC 136, PSC 137, PSC 140, and PSC 141

- **Additional Options (Substitutions) for Group F:**
  - PSC 132 – Language & Cognition
Questions?
Comments?
Concerns?
1-1 Support