

Guidelines for your ES Program Concentration

1. Your concentration should be something you are excited about & therefore you ***want*** to take those classes. It should connect with your future career and/or post-Vanderbilt professional plans. For example:

- Post-graduate study: Medical School, Law School, PhD Program
- Type of career: Project Management, Consulting, Entrepreneurship, Product Development, Research
- Industry/Discipline: Environmental Systems, Computer Science, Policy, Transportation, Communications, Finance, Non-Profit, Medical Devices, Manufacturing, Supply Chain

2. The concentration requires **24 credits**. You propose the classes you want to take; the Engineering Science & Management Division (formerly General Engineering) and the VUSE Office of Academic Success have final approval. After they approve, those courses will be integrated into your Degree Audit. Specific requirements and constraints:

- Courses must be at the 2000-level or higher
- With a strong justification, up to two 1000 level courses *may* be acceptable (evaluated on case-by-case basis)
- Courses explicitly required for the ES major are not eligible (e.g., ENGM 3700; ES 2100W, 4951, 4959; Chem 1601/L, Math 1300, 1301, 2300)
- You cannot “double count” classes that are fulfilling ES degree requirements as part of your 24 credits (see attached ES Degree Requirements slide & Notes from Prof. Johnson).
- You may “double count” classes that are fulfilling the requirements for a minor(s) or second major, as long as they aren’t also being used for ES Degree requirements.
- It is ok to list more than 24 credits worth of courses (e.g., in case you can’t get into one course) but only 24 credits will count.
- If you list a class for your concentration and it is currently being used to satisfy another degree requirement, you will need to select a new class to fill the previous slot.
- You can change your concentration plan after it is approved. There is a form and approval process; see the OAS Engineering Forms Website (link at bottom of page).

3. To get your concentration approved you:

- Decide on the theme/focus you want
- Identify a list of candidate classes.
- Create a name for your focus – be creative & strategic: think about how you would discuss this with a potential employer or grad school admissions committee.
- Fill out the *Engineering Science Program Concentration Declaration* form – available from the Engineering Forms Website (link at bottom of page)
- Write your justification memo
- Submit both for review to your adviser (who will then send it to the Division Chair and Engr-OAS for final approval). No further action is required from you at this time.
- Once through Division & OAS review, your declaration will be sent to the Registrar’s Office. It can take up to a week for your YES Degree Audit to be updated.

At any step in the process, your adviser is there to help. We recommend a quick meeting to do a sanity check on your idea before doing too much work. Meeting with your adviser does not have to be a big deal; quick casual conversations can help you reach closure on your topic.

For the Justification Memo, the purpose is to explain what you want to do and why. This is a valuable document because it enables continuity in the event your adviser changes. We recommend the following format:

- Your name, student ID, expected graduation semester
- Intro paragraph defining your theme, what it means, and what motivated you to choose it

- Justification for how each of the courses applies. For example, you could include a table that lists each of the classes you want to take, why/how they contribute, and when you expect to take them (this overlaps with the course info on the ESP Concentration Declaration form).

Course Number & Name	Brief Rationale for including in your program	Expected Semester

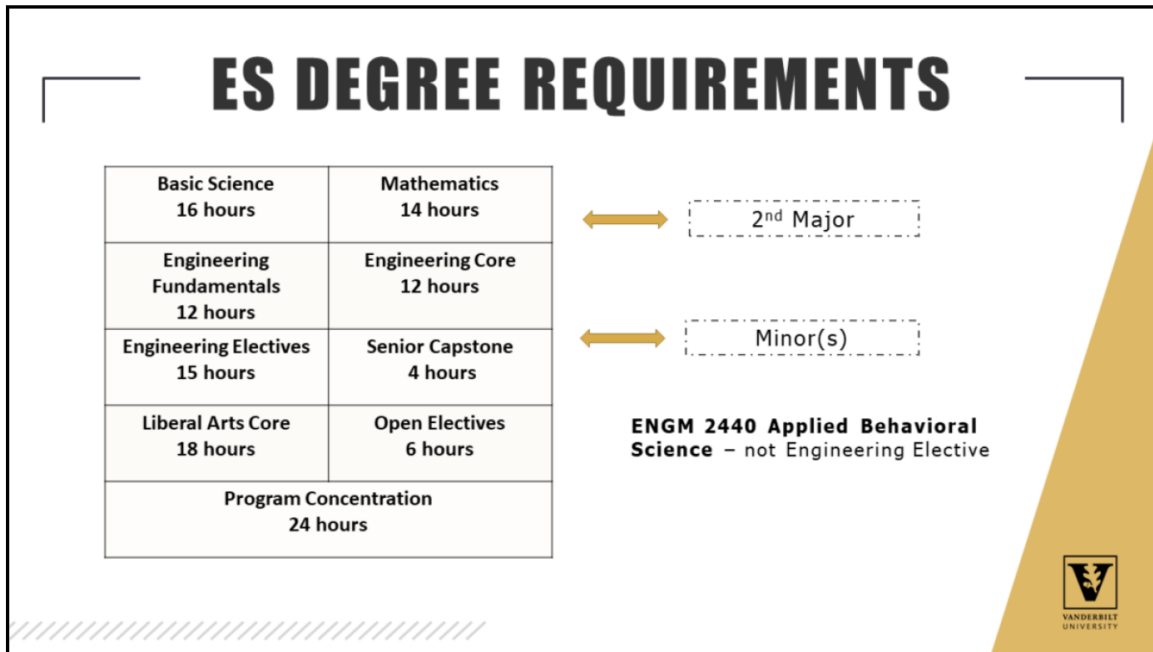
- If using courses from Study Abroad or other transfer credits, include both the original university course number/title and the Vanderbilt equivalent course number/title
- Closing/Summary paragraph that summarizes how this program will help you accomplish your goals.
- Reasonable length is 1-2 pages.

Engineering Forms Website:

<https://engineering.vanderbilt.edu/academic-services/AcademicAdvising/Forms.php>

(has all the forms you could possibly want)

From Prof. Johnson:



The Engineering Science Degree plan is like a house with 9 rooms. Courses can only live in one room. For example, ENGM 2210 Technology Strategy can be an Engineering Elective OR Program Concentration.

If a student has a minor or second major, then courses can count somewhere in the ES degree plan AND the minor or second major. For examples, if a student declares the ENGM Minor, ENGM 2210 can count for both the ENGM Minor and the ES Degree.