#### **DEPARTMENT OF CHEMICAL ENGINEERING**

*Prof. Alan West, Chair*

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**Instructions:** Fill in as much of this form as possible before your advising meeting. This form must be signed by your advisor before you will be allowed to register.

## Your Chemical Engineering advisor’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Your CSA advisor’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CUID# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**GRADUATION YEAR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**STUDENT ID NUMBER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CAMPUS ADDRESS : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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## **PHONE NUMBER: ( ) \_\_\_\_\_- \_\_\_\_\_\_\_\_\_\_**

**E-MAIL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**DEGREE SOUGHT:** **BS** **MS** **SP** **PROF** **DES** **PhD YEAR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## **COMBPLN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SCHOOL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**APPROVED COURSE FOR:**  **FALL** **SPRING**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Course | **Number** | **Grade** | **Pts** |
| **1** |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |  |
| **5** |  |  |  |  |
| **6** |  |  |  |  |
| **7** |  |  |  |  |
| **8** |  |  |  |  |
| **9** |  |  |  |  |
| **10** |  |  |  |  |
| TOTAL |  |

## **ADVISOR’S SIGNATURE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_**

**DEPARTMENT APPROVAL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_**

Updated 4-13-18 DVE

**Look on reverse side for details and instructions**

**GUIDELINES FOR REGISTRATION AND SELECTING ELECTIVES**

When preparing your program for registration, keep the following in mind:

**\* FULL TIME STATUS:** Although SEAS requires only 12 points for full time status, the Department requires a minimum of 15 points per term.

**\* MAJOR REQUIREMENTS:** In both the 1st Year/Soph and Jr./Sr. programs, certain technical courses are required; these are defined for Chemical Engineers in the appropriate section of the current SEAS Bulletin. Make sure you have fulfilled prior major requirements for the term in question.

**\* NON-TECHNICAL ELECTIVE REQUIREMENTS**

You need 27 non-techs to graduate. Normally, 16-18 points are completed during the Frosh./Soph. years, and 9-11 points are to be taken during the Jr.-Sr. years. Among the 16-18 points taken in Frosh./Soph. years you ***must*** take certain courses; the “must-do” courses are listed in the SEAS Bulletin section on non-technical requirements. The 9-11 points taken in Jr./Sr. years are almost free; the SEAS Bulletin defines what courses can and cannot serve as a non-techs (for further clarification see your advisor).

**\* TECHNICAL ELECTIVE REQUIREMENTS:** In both the 1st Year/Soph. and Jr./Sr. programs there are technical elective requirements, defined in the Chemical Engineering section of the SEAS Bulletin. The Jr/Sr program includes 21 points of tech. electives (7 courses). The following stipulations apply:

* The courses must normally be 3000 level or higher. There are several exceptions that may count as “advanced natural science” (see below) technical electives even though they are below 3000 level: PHYS C1403 (3), PHYS C2601 (3.5), BIOL C2005 (4), BIOL C2006 (4), BIOL W2501 (3), CHEM2444.
* All tech electives must be primarily science, math, and/or engineering oriented and feature quantitative analysis as the core of the syllabus. e.g. classes such as Intellectual Property and business/ entrepreneurship classes, even if taught as a SEAS course, do not count as technical electives. Programming courses also do not count as technical electives.
* Of the seven elective courses, at least five must be within SEAS. Among those courses, at least four must have significant engineering content (i.e. are not purely mathematical in nature). At least two must be within chemical engineering (e.g., with the designator BMCH, CHEN, CHEE, CHAP, or MECH). At least one must be outside chemical engineering.
* The remaining two technical elective courses must contain "advanced science" coursework, which includes the natural sciences (e.g. chemistry, physics, biology) and certain engineering coursework. At least one of these courses must be taken outside of SEAS (e.g., in a science department at Columbia). Qualifying engineering courses are determined by Chemical Engineering department advisors.
* 3 pts of CHEN E3900 *Undergraduate Research* may be taken for a chemical engineering technical elective. Up to 6 pts. of CHEN E3900may be counted towards technical elective content provided an undergraduate thesis is prepared documenting the research. If you are interested in writing a senior thesis, view the thesis guidelines document available under “Undergrad Advising Forms” on the [undergraduate studies webpage of the chemical engineering department website](https://cheme.columbia.edu/current-undergraduate-students-0).

The department recommends focusing electives in one technical area, for example, in Material Science, Biotechnology, Environmental Engineering, etc.. Introductory and/or prerequisite courses in these areas are listed in the minor programs in the SEAS Bulletin.

**\* Useful links and Resources:**

* Columbia directory of classes: <http://www.columbia.edu/cu/bulletin/uwb/>
* Columbia SEAS bulletin: <http://bulletin.engineering.columbia.edu/>
* Key to designators and course numbers: <http://bulletin.engineering.columbia.edu/key-course-listings>
* SEAS minors & requirements: <http://bulletin.engineering.columbia.edu/undergraduate-minors>