Introduction and Overview of Session

- Advising at Columbia
- Transition from high school to college
- Basic requirements for a SEAS degree
- First-Year requirements
- Academic integrity
- Planning your fall schedule and registering for classes
- Academic advising resources
- Common Columbia terms

I. Advising at Columbia

The Center for Student Advising (CSA) strives to be a trusted and indispensable source of knowledge and support for students throughout their undergraduate years. In August, you will be assigned a CSA adviser who will work with you over the course of your four years here. He or she will not only help you plan your course schedule and fulfill your graduation requirements, but also assist in the exploration of your various academic and co-curricular interests and plans.

Every SEAS student will be assigned a CSA adviser in August and will work with this adviser through the first year. In the fall of sophomore year, your adviser may change based on your selected major.

Areas of Advising

Your adviser is your primary point of contact for a variety of issues and questions, including the following:

- General academic questions, concerns, or difficulties
- Personal goals, issues, or concerns
- Registration questions and problems
- Referrals to other resources on campus
- Planning to study abroad
- Premed and pre-law requirements, graduate school, and other academic opportunities
- Future life plans

General & Major Advising

During the first semester of your sophomore year, you will declare your major and will be assigned a departmental adviser in your major department in addition to your CSA adviser. Your departmental adviser can help you with questions specific to your major such as major course planning, internship and research opportunities, career options, and graduate study within the discipline. Remember that you can access faculty at any time, even before you declare a major or concentration.
Adviser Availability

You can make appointments with your CSA adviser using our online appointment system. Your adviser is also available to answer quick questions during walk-in hours every Monday through Thursday from 3:00 pm to 4:30 pm. In addition, you can reach your adviser via email and expect to get a response in a timely manner.

The Advising Partnership

Productive advising is built on a true partnership in which the student and the adviser work together. The spirit of an ideal advising partnership is mutual engagement, responsiveness, and dedication. Regular advising conversations, the fundamental building blocks of the partnership, enable an adviser to serve as a resource of knowledge and a source of referrals, so that students may plan and prepare, in the broadest sense, over the course of their years at Columbia.

To make this partnership a success:

**Students should:**

- Actively engage in the advising relationship
- Respond to adviser outreach and be forthcoming about perceived obstacles to success
- Proactively research and plan ways to reach academic goals and be open to sharing these goals with their advisers
- Be open to researching the answers to questions with advisers in order to learn ways to find information on their own
- Act upon referrals to other sources of information and advice
- Let advisers know when they have not been able to find information and advice they need

**Advisers should:**

- Be knowledgeable, responsive, and supportive
- Reach out to advisees, especially when an advisee seems to be struggling
- Inquire about students’ short- and long-term goals and ask students to consider study abroad, fellowships, scholarships, internships, research opportunities, etc.
- Research the answers to questions with students as a way to show students how to find information on their own
- Refer students to other sources of advice and information and connect advisees with appropriate faculty members and departments and other campus offices
- Follow up with students on important matters in a timely way

This is what you can expect from us, and what we will expect from you. At the end of your first year at Columbia, we will ask you to take a survey in which you evaluate your adviser and yourself in terms of these specific expectations and standards.

The CSA strives to ensure that you have a positive and productive relationship with your adviser. On occasion, students may feel that their initial advising assignments were not the appropriate fit for them. If you believe that you would benefit from a different CSA adviser after you have worked together in your first year, you can meet with Monique Rinere, the Dean of Advising, to discuss an adviser switch.
II. Transition from High School to College

Be aware of some of the areas in which college will differ from high school: attendance policies, class schedules, number of graded assignments, class size, and communication and interaction with parents. High school can be relatively formulaic: if you do $a$, $b$, and $c$, you will be able to get into colleges $x$, $y$, and $z$. There is a straightforward goal and a clear set of steps to get there. College is different. People have different goals, and there is never only one way to reach a goal. For that reason, we in the Center for Student Advising encourage students to discover and follow their passions, to explore and grow through the process.

Advisers can support and guide you, but you are in control of your education and experience, and ultimately responsible for your own choices both academically and socially. You will have the opportunity to manage your own time, create your own support network, and carve out space for rest and reflection. Remember, one of the most important things to keep in mind is that nobody is perfect. It is a sign of wisdom and maturity to ask for help when you need it.

Always remember to:

- Take care of yourself – experience freedom wisely.
- Respect the rights of others. Behave responsibly.
- Know when to ask for help, and then ask for it.
- Maintain academic honesty and integrity at all times.

III. Basic Requirements for a SEAS Degree

Students have 4 years (8 semesters) to graduate.

Students need a minimum of 128 credits to graduate. Students must enroll in a minimum of 12 points per term. The average course load per semester is 16-17 credits, or 5 classes. These 128 credits are made up of:

- The first-year/sophomore requirements
- A SEAS major
- 27 credits of non-technical courses (i.e., not math or science. A full list of acceptable classes may be found in the SEAS Bulletin.)

IV. First-Year Requirements

The following classes must be completed in the first year in SEAS.

Calculus

All first-year students must take calculus. There are four levels of calculus; most majors require proficiency through the 4th level, although some require proficiency only through the 3rd level. Consult the SEAS Bulletin for this information.
The Math Department will run an information session during Orientation, but students can also use the following guidelines to register for the appropriate level:

- Calculus I (MATH V1101) – Less than one full year of calculus in high school or less than a 4 on Calculus AB or BC AP exam
- Calculus II (MATH V1102) – AP score of at least 4 on AB exam, or a 4 on BC exam; 6 or 7 on A-level GCE
- Calculus III (MATH V1201) – AP score of 5 on BC exam

Note: Both Calculus II and Calculus III are foundation courses for SEAS. Students must master the material in both courses in order to lay the groundwork for success in the SEAS curriculum. Placement into Calculus III is allowed only if you earn a 5 on the Calc BC exam. SEAS students with a 4 or 5 on Calc AB, or a 4 in Calc BC, must begin with Calculus II. If a SEAS student self-places into Calculus III, he or she will not be granted AP credit and will be required to go back and take Calculus II.

**Chemistry**

At least one semester of chemistry is required of all SEAS first-year students, and must be taken in the first year. Many majors require two semesters of chemistry. All SEAS first-year students must attend an information session; students interested in chemistry levels beyond 1400 must take a placement test during Orientation.

There are three levels of chemistry:

- General Chemistry (CHEM C1403-1404), and possibly lab (CHEM 1500) depending on major
- Intensive General Chemistry (CHEM C1604) and Intensive General Chemistry Lab (CHEM C2507)
- Organic Chemistry for First-Years (CHEM C3045-3046)

Students taking one of the advanced levels of chemistry should be registered for Calc II at a minimum.

**Physics**

SEAS students must take a physics sequence in the first year, and must begin this sequence in the fall.

There are three levels of physics:

- Physics C1401-1402
- Physics C1601-1602 (same as 1400 series but is taught at an accelerated pace and includes thermodynamics and relativity theory)
- Physics C2801-2802: Accelerated Physics

Most SEAS students take either the 1400 or 1600 sequence. Students who have a very strong background in physics and wish to take Accelerated Physics must either take the placement exam during Orientation, or have scored a 4 or 5 in AP Physics and a 5 in AP Calc BC. This sequence is extremely challenging and is designed primarily for Applied Physics majors and students with an intense interest in physics. Students must attend an information session before sitting for the physics placement exam.

Note: if you are in one of the advanced chemistry sequences, you are expected to take either the 1600 or 2800 physics sequences.
University Writing (ENGL C1010)

University Writing is intended to facilitate students' entry into the intellectual life of the university by helping them to become more capable and independent academic readers and writers. With its small section size and emphasis on critical analysis, revision, collaboration, and research, the course leads students to develop specific skills and general habits of mind important to their future academic success. Students read and discuss texts from a number of fields, complete regular informal reading and writing exercises, write several longer essays, and undertake a collaborative critical project of their own design. University Writing, a one-semester course, is required of all first-year students and may not be dropped (3 credits).

Half of the first-year class will be pre-registered for University Writing in the fall. Students who take University Writing in the fall will take The Art of Engineering in the spring, and vice versa.

The Art of Engineering (ENGI E1102)

The Art of Engineering is required of all first-year SEAS students. This course is a bridge between the science-oriented, high school way of thinking and the engineering point of view. Fundamental concepts of math and science are reviewed and reframed in an engineering context, with numerous examples of each concept drawn from all disciplines of engineering represented at Columbia. Nontechnical issues of importance in professional engineering practice such as ethics, engineering project management, and societal impact are addressed.

Half of the first-year class will be pre-registered for The Art of Engineering in the fall. Students who take The Art of Engineering in the fall will take University Writing in the spring, and vice versa.

Other Requirements to Consider When Finalizing Your Schedule

Computer Science. All majors except for Chemical Engineering require at least one semester of computer science. Your choice of major will determine which comp sci course you take, and how soon in your SEAS career you should take it (i.e., BME majors must take COMS 1005: Matlab, while Mech Eng and IEOR majors may not take Matlab).

Chemistry Lab (CHEM 1500). All SEAS majors require that students take either chem lab and/or physics lab. Choice of lab may depend on major. Physics lab can be taken only in sophomore year, but chem lab can be taken in the first year.

Art Humanities (HUMA 1121) or Music Humanities (HUMA 1123). SEAS students need to take only one of these courses and can choose which one to take. These classes are recommended to be taken in the first two years.

- Art Humanities teaches students how to look at, think about, and engage in critical discussion of the visual arts. The course focuses on the formal structure of works of architecture, painting, and other media, as well as the historical contexts in which these works were made and understood. In addition to discussion-based classes, all sections of Art Humanities make extensive use of New York City through field trips to museums, buildings, and monuments.
• **Music Humanities** strives to awaken in students an appreciation of music in the Western world, to help them respond intelligently to a variety of musical idioms, and to engage them in the debates about the character and purposes of music that have occupied composers and musical thinkers since ancient times. Note: A Music Humanities exemption test is offered to first-year students one time only, during the first week of classes. If students do not take the test during this week, they will not be able to take it at a later date (i.e., sophomores, juniors, and seniors are not eligible to take the test). Information on the test will be included in the Academic Packet distributed during Orientation.

**Principles of Economics** (ECON 1105). Required before graduation; recommended in the first two years. IEOR majors and/or Economics minors should take this course in the first year.

**Physical Education.** The PE requirement emphasizes the importance of intellectual and physical balance. Two physical education classes are required. During terms in which they compete, varsity athletes can register for their sport (PHED C1005), which will then count toward this requirement.

**Non-Technical Electives**

SEAS students must take at least 27 credits of non-technical coursework to graduate. Approximately 18 of these credits are accounted for via required courses (i.e., University Writing, Econ 1105, Art or Music Hum, the humanities sequence), but at least three additional elective classes are still needed to make up the rest of the 27 credits. These can be taken at any time. Almost any course from the humanities and social sciences (English, political science, history, religion, etc.) will count, as can certain AP exams/scores.

**V. Academic Integrity**

Academic integrity defines a university and serves as a cornerstone of community. A Columbia education emphasizes the development of the individual’s moral character and personal ethics as well as the student’s mastery of intellectual material within a discipline. Columbia requires that students take full responsibility for their actions. As a Columbia student, you are responsible for making informed choices with regard to academic integrity both inside and outside the classroom.

Academic dishonesty is one of the most serious offenses a student can commit at Columbia, and can be punished by permanent dismissal from the university. Speak to your instructor, speak to your adviser, but do not be tempted into an act of academic dishonesty for any reason. It isn’t worth it. Please refer to the Academic Planning Guide for New Students for important information about academic integrity.

**VI. Planning Your First-Year Schedule and Registering for Classes**

At the end of the Columbia Engineering section of the Academic Planning Guide, there is a tear-out sheet that you should complete before arriving on campus for Orientation. Your answers on that sheet will provide a springboard for further conversation and exploration when you first meet with your CSA adviser. We also would like you to use that sheet as a means to start thinking about courses for the fall term and about your Columbia career in general.
Although the SEAS curriculum is largely set for the first semester, you should think about which classes you want to take and consult with your adviser to solidify your plans. Plan to take five classes in the fall term:

- Calculus
- Chemistry
- Physics
- Art of Engineering or University Writing
- One other course: Econ, comp sci, professional level course, chem lab, non-tech elective, etc.

**Fall Registration**

First-year students will be able to register using Student Services Online (SSOL) on the **Friday of Orientation week**. You will receive an Academic Packet during Orientation check-in which will contain your SEAS Bulletin and registration instructions. During the summer, you can consult the SEAS Bulletin online at [www.engineering.edu/bulletin/](http://www.engineering.edu/bulletin/).

**VII. Advising Resources**

Please take advantage of these various resources available to you to ensure your success at Columbia:

**Before Orientation:**

- The [Center for Student Advising website](http://www.studentaffairs.columbia.edu/csa/) and social media sites have information about academic policies, academic support, and other advising resources: www.studentaffairs.columbia.edu/csa/, www.facebook.com/ColumbiaCSA, @ColumbiaCSA
- The **SEAS Bulletin** contains course descriptions, requirements for all majors and minors, and departmental information: [www.engineering.edu/bulletin/](http://www.engineering.edu/bulletin/)
- The **Academic Planning Guide for New Students** is a very important resource; please read through it carefully. A hard copy has been mailed to you, and the online copy can be found here: [http://www.studentaffairs.columbia.edu/sites/dsa/files/handbooks/Academic%20Planning%20Guide%202014-2015.pdf](http://www.studentaffairs.columbia.edu/sites/dsa/files/handbooks/Academic%20Planning%20Guide%202014-2015.pdf)
- Included in the Academic Planning Guide is a **tear-out sheet** for you to complete and bring with you to Orientation when you meet with your academic adviser.
- Your **Summer Advising Session adviser** is available via email or phone.

**During Orientation**

- Meet with your **CSA adviser** to discuss your fall schedule and course selection. You will be notified of your adviser’s name and contact information in early August.
- A **premed information session** will be held for interested students.
- **Language placement exams** will be given.
- The **Music Hum** exemption exam will be given.
- **Chemistry and physics placement exams** will be given and a **Math Information Session** will be held. Students interested in taking an advanced level of physics or math, or any level of chemistry, must attend the information sessions given prior to the exams.
• Attend the Academic Resources Fair, which is an excellent opportunity to meet faculty members and learn more about Columbia’s academic departments.

After Orientation:
• Your CSA adviser can help with both immediate concerns and long-term planning.
• Tutoring; Math, Statistics, and Physics Help Rooms; and the Writing Center (http://www.college.columbia.edu/core/uwp/writing-center) can help you improve your academic performance.
• Counseling and Psychological Services (CPS) and Academic Success Programs (ASP) will offer workshops on time management, study skills, and a variety of first-year issues.
• The CSA Weekly email and CSA Blog (http://www.studentaffairs.columbia.edu/csa/blog) includes the latest news and information for your academic planning.
• Arrange to meet with your instructors (professors and TAs) during office hours or by appointment if you have questions or problems.

VIII. Common Columbia Terms

• Schools: Columbia College (CC), The Fu Foundation School of Engineering and Applied Science (SEAS), Barnard College (BC), School of General Studies (GS)
• Classes: The Art of Engineering (informally known as Gateway), Literature Humanities (Lit Hum), Contemporary Civilization (CC), University Writing (UW), Art Humanities (Art Hum), Music Humanities (Music Hum)
• Academic Terms: Teaching Assistant (TA)
• Advising Resources: Center for Student Advising (CSA)
• Orientation Programs: New Student Orientation Program (NSOP), Orientation Leader (OL), Columbia Outdoor Orientation Program (COOP), Columbia Urban Experience (CUE)
• Residential Programs: Resident Adviser (RA), Community Adviser (CA), Graduate Hall Director (GHD), Living-Learning Center – Hartley and Wallach Halls (LLC)
• Systems: Student Services Online (SSOL), Degree Audit Report (DAR), UNI (the first part of your Columbia email address, including your initials and a number), CUID/PID (personal identification code assigned by Columbia, beginning with the letter “C” and followed by 9 digits), Columbia University Information Technology (CUIT)
• Student Publications: The Spectator (Spec), bwog.com (blog of The Blue and White, Columbia’s monthly undergraduate magazine)
• Student Radio Stations: WKCR (Columbia), WBAR (Barnard)

Contact the Center for Student Advising
• Website: http://www.studentaffairs.columbia.edu/csa
• Email: csa@columbia.edu
• Phone: 212-854-6378
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• Twitter: @ColumbiaCSA