

SYLLABUS

Law and the Commercial Space Industry (Fall 2014)

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1. COURSE DESCRIPTION

This course satisfies the UHLC practice skills requirement. Satellite and commercial space transportation companies manage liability exposure at the international, national, and state level. Their ability to do so hinges on leveraging available government-sponsored indemnification, insurance coverage, and contractual waivers, while taking full advantage of the statutory and common law protections available to limit their liability. Students will be given the opportunity to learn about UN treaties currently governing state-to-state relationships, federal law governing licensing and regulation of commercial space entities, state laws attempting to limit liability for spaceflight entities, and the way in which the US Government has contracted private companies to meet its space transportation needs. Students will also learn about insurance coverage available to, and obtained by, satellite and commercial space transportation companies. This course will also provide an understanding of the satellite and commercial space industries generally, including an overview of the regulation and licensing of telecommunications and commercial space endeavors such as Boeing, Lockheed Space Systems, SpaceX, Virgin Galactic, XCor, and Bigelow, among others. The course will also provide a foundation in the technological aspects of the satellite and commercial space transportation industries to generate a well-rounded understanding of the subject matter. Students will be expected to produce several written assignments throughout the semester. There will be no final exam.

2. ASSIGNED BOOK & READINGS

- M.-V. Carminati, M. Kleiman, and J. Lamie, *The Laws of Spaceflight: A Guidebook for New Space Lawyers*, ABA Publishing (2012).
- I will also assign readings available online or that I will them hand out to supplement the book.

3. CLASS PARTICIPATION AND ATTENDANCE

Attendance: The Law Center Student Handbook reads in part: “The Law Center has a minimum 80% attendance policy for students. Any student who attends fewer than the minimum percentage of classes may be dropped automatically from the class. Faculty members are free to impose stricter attendance standards. Faculty members may consider those who come in late or leave early as absent, or may decline to let a late student attend that day.”

This class requires 80% attendance. Late arrivals will count as half an absence. It is important that you come to class unless you have a legitimate reason for not doing so. Illness is a legitimate reason. Out of consideration for your colleagues, do not come to class if you are ill. I will keep track of attendance and I expect you to do the same. Absences in violation of law center policy may be sanctioned by a reduction in the final grade or, in egregious cases, by involuntary withdrawal from the class.

Participation: I expect everyone to have read and thought about the problems and the cases and other readings assigned for each day's class. This is for your benefit, as learning is not a passive endeavor. It is also for my benefit, so that I can see how you're thinking about the class, and to know where I've been unclear in my presentation.

Illness or other issues: If you miss class due to illness or for any other reason, please get notes from your colleagues. If someone asks you for notes for a missed day of class, I expect you to do the human thing and share with them the notes for that day. This is different than being asked for your notes for every day of the course. You may also discuss what you missed with me, but please do so as soon as possible after you have returned from your illness.

4. EXAMS AND GRADING

Your final grade will consist of 60 % for the written assignments below, 20 % for in-class participation, 20 % for in-class exercises. The written assignments are weighed evenly.

Exceptional class participation may result in the award of "push points." The award of push points could push the grade over into the next highest category: for example, with push points, a B- would become a B.

5. USEFUL INFORMATION

Class Meeting Times: T, Th 6-7:20 pm

Class Schedule: This is developed as a 13.5-week syllabus. We will meet 14 Tuesdays and 13 Thursdays, and our last class is Tuesday November 25, 2014.

Office Hours: I am a full time practitioner and I do not have an office at the law center. However, I am fully committed to making myself available to address any questions, difficulties, concerns or interests caused by this course. To schedule an appointment, simply e-mail me. I carry my cell phone, with email access, every where I go and I continuously monitor my emails. I will generally get back to you rather rapidly. You may also call me at my office at 713.529.5622. If we need face-to-face time, I will make myself available to talk to you just before or after class, or at another time at my office. Otherwise, we can communicate by phone or email.

CENTER FOR STUDENTS WITH DISABILITIES

The University of Houston, when possible and in accordance with 504/ADA Guidelines, will attempt to provide reasonable academic assistance to students who request and require it. Please contact the Center for Students with Disabilities at 713.743.5400 for more information.

6. CLASS PLAN

Weeks 1 and 2: Space Business & Space Technology

- Introduction to the human spaceflight and satellite industries and the legal landscape
- Discussion of basic relevant physics concepts
- Overview of space technology (launch vehicles, re-entry vehicles, satellites)

Week 3: UN Treaties and Liability Exposure

- UN Treaties

- Liability of States for Private Actors' Actions
- Review of accidents – Apollo, Shuttle, satellite collisions
- State to State – Previous cases

Week 4: Limiting Liability

- *Thursday—Assignment No. 1 Due: Appellate Memorandum/Brief*
 - Federal laws (CSLA, CSLAA, Telecom)
 - State laws
 - Waivers & Contracts

Weeks 5 and 6: The Launch Industry

- Space ports and launch pads
- Which countries offer launch services, which countries buy them, and where satellites get launched from

Week 7: Telecommunications

- *Thursday—Assignment No. 2 Due: Memo*
 - FCC licensing for telecommunications satellites
 - Geostationary orbit position assignments
 - NOAA licensing for private Earth imaging satellites

Weeks 8: The FAA Licensing Process

- The FAA's mandate: Launch, Launch Site, and Reentry Licenses
- Licensing v. Certification, the US/Europe divide
- Case Study: SpaceX reentry license and safety waivers

Week 9: Indemnification

- *Tuesday—Assignment No. 3 Due: SFP Contractual Waivers*
 - Indemnification by the U.S. Government
 - Indemnification by non-U.S. Governments – France/EU, China, Russia, India
 - Case studies

Week 10: Non-Human Spaceflight Insurance

- *Thursday—Assignment No. 4 Due: Contract*
 - Insurance for commercial non-human spaceflight
 - Insurance for Loss of Cargo (Availability, Cost, Coverage & Limitations)

- Third-Party Liability Insurance (Availability, Cost, Coverage)

Week 11: Human Space Flight Insurance

- *Tuesday—Assignment No. 5 Due: Negotiation Exercise*
 - Participant/Crew Liability
 - Third-Party Liability
 - Insurance as a reduction of recovery

Week 12: The U.S. Government as Your Customer

- Types of government contracts (Space Act Agreements, COTS, CCDev, COE)
- Government proposal and contracting process
- Post-award contract compliance
- Award protests
- The abolition of Space Act Agreements and what it means for NASA and commercial space companies

Week 13: Compliance With Export Control Laws

- *Thursday—Assignment No. 6 Due: Court Filing*
 - Export Control Laws: ITAR, EAR, OFAC
 - Obtaining an export license
 - Corporate compliance best practices

Week 13.5: Final Class

- Discuss Assignment No. 6
- Unfinished business