

Sustainability, Innovation, Intellectual Property

Syllabus

BACKGROUND

[Optional: Sustainability has emerged to be one of the most consequential concepts of the present-day world. It encompasses all dimensions of human well-being on this planet – including health, education, decent work conditions, clean water, infrastructure, clean energy, climate action, life on land, life under water and many more. Most imminently, sustainable life on earth is threatened by climate change. Progress towards sustainability is currently largely focused on mitigation and adaptation efforts relating to the effects of climate change. Innovation on a massive scale is required to support these efforts. Innovation, in turn is largely fueled by the incentive mechanism provided by intellectual property (IP) laws.]

Tension arises from the fact that IP laws are premised on a market-based, profit-oriented logic, while sustainable development is generally driven by human right-based considerations. Yet, further inquiry shows that the dividing line is not quite so stark. On the one hand, sustainability cannot progress absent the involvement of business interests and, consequently, the incentive provided by IP. On the other, IP norms are the product of balancing the public and the private interest.

COURSE DESCRIPTION AND TEACHING METHOD

This course examines points of tension and of congruity between IP laws and sustainability. At the outset, students are presented with an introduction to the rationale and operation of various types of IP (patent, copyright, trademark, etc). Next, the tension between patent laws and sustainability is examined, with a focus on the international pharmaceutical sector and on biodiversity. Finally, the course will delve into the role of IP laws in disseminating knowledge, in the form of licensing and technology transfer, open source, open innovation, etc.

The course is organized in 5 modules of 3 hours each.. Theoretical teaching is supplemented by experiential-type learning methods, such as case studies and discussion of hypothetical fact situations.

COURSE LEARNING OUTCOMES

Students who complete this course should have acquired a general understanding of the issues surrounding the operation of certain IP laws in conjunction with issues presented by the needs of sustainable development, including

- the policies underlying IP laws, as well as their basic operation
- how IP laws function to incentivize innovation and creation; the manner in which IP laws facilitate diffusion of knowledge and the manner in which, under certain circumstances, they may operate to impede the flow of knowledge

Furthermore, students will have acquired certain practical skills, including the ability to critically reflect on, analyze and synthesize the knowledge described above and to apply it to strategies that promote innovation in the service of sustainability, including the ability to

- identify innovation-furthering or innovation-hindering effects of IP laws
- utilize IP laws to develop strategies for dissemination of knowledge taking in consideration IP laws
- advocate policies for a sustainability-friendly interpretation of IP laws and for harnessing knowledge governance policies to support sustainability-focused innovation

BIBLIOGRAPHY

MODULE 1: Property Rights, public good and Sustainability in International Environmental Law

Mandatory Reading

Ernst-Ulrich Petersmann, *International Economic Law in the 21st Century*, pp. 25- 112. Hart Publishing, 2012.

Optional Reading

Michel Vivant, *Propriété intellectuelle et mondialisation*. Pp. 105-130 “Marchandisation et brevet”

Christophe Belmann, Graham Dutfield et alii. *Trading in Knowledge*.

MODULE 2: THE INTERSECTION OF INTELLECTUAL PROPERTY LAW AND SUSTAINABILITY

Mandatory Reading

- James Boyle, *The Public Domain*, pp. 1-16, “Why Intellectual Property”, <https://thepublicdomain.org/thepublicdomain1.pdf>
- William Borchart, *A Trademark is not a Copyright or a Patent*, Cowan Liebowitz & Latman, 2022, https://www.cll.com/media/publication/613_A%20Trademark%20is%20Not%20a%20Copyright%20or%20a%20Patent%202022.pdf

Optional Reading

- Jesse Reynolds, Jorge L. Contreras & Joshua D. Sarnoff, *Solar Climate Engineering and Intellectual Property: Toward a Research Commons*, 18 MINN. J.L. SCI. & TECH. 1 (2017) <https://scholarship.law.umn.edu/mjlst/vol18/iss1/1>
- Ofer Tur-Sinai, *Patents and Climate Change: A Skeptic's View*, 48 *Envtl. L.* 211 (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2971639
- Joshua Sarnoff, *The Patent System and Climate Change*, *Virginia Journal of Law & Technology*, Vol. 16, No. 02 (2011), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1780499

MODULE 3 – INTERNATIONAL OPERATION OF IP LAWS (AS ILLUSTRATED IN THE CONTEXT OF THE PHARMACEUTICAL INDUSTRY)

Mandatory Reading

- TRIPS Articles 7, 8, 27, 30,31 www.wto.org/english/
- Kevin Noonan, “The Anatomy of a Compulsory License: *Natco Pharma Ltd. v. Bayer Corp*” www.patentdocs.org/2012/03/the-anatomy-of-a-compulsory-license-natco-pharma-ltd-v-bayer-corp-indian-patent-office.html
- Reto Hilty, et al, *Covid and the Rule of Intellectual Property* https://www.ip.mpg.de/fileadmin/ipmpg/content/stellungnahmen/2021_05_25_Position_state

[ment_C ovid IP waiver.pdf](#), (Position statement of the Max Planck Institute for Innovation and Competition, May 7, 2021).

Optional Reading:

- Henning Grosse Ruse-Khan, Intellectual Property and International Law, Max Planck Institute for Innovation and Competition Research Paper No. 18-21, 2018, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3246900
- Dean Baker, Arjun Jayadev and Joseph Stiglitz, Innovation, Intellectual Property and Development: A Better Set of Approaches for the 21st Century, July 2017
- Suma Athreya, et al, Twenty-Five Years since TRIPS: Patent policy and International Business, , [Journal of International Business Policy](#) 3(1):1-14, 2020
- Urias, E., Ramani, S.V., Access to medicines after TRIPS: Is compulsory licensing an effective mechanism to lower drug prices? A review of the existing evidence. *J Int Bus Policy* 3, 367–384

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(2020). <https://doi.org/10.1057/s42214-020-00068-4>,
<https://link.springer.com/article/10.1057/s42214-020-00068-4>

- Natco Pharma Ltd. v. Bayer Corp., <https://indiankanoon.org/doc/28519340/> (full opinion)

MODULE 4 – INTELLECTUAL PROPERTY LAW AS ENABLER OF KNOWLEDGE DIFFUSION

Mandatory Reading

- Antony Taubman, Sharing Technology to Meet a Common Challenge, https://www.wipo.int/wipo_magazine/en/2009/02/article_0002.html
- What is Open Innovation? <https://openinnovation.eu/open-innovation/>
- Eric von Hippel, Innovation by User Communities: Learning from Open Source Software, http://adaptknowledge.com/wp-content/uploads/rapidintake/PI_CL/media/InnArticle.pdf ▪ Eric Hahn, An Overview of Open-Source Software Licenses and the Value of Open-Source Software to Public Health Initiatives, <https://www.jhuapl.edu/Content/techdigest/pdf/V32-N04/32-04-Hahn.pdf>, pp. 691-693
- Viola Prifti, Licensing brief: <https://ip4sustainability.files.wordpress.com/2020/10/brief-licensing-general-1.pdf>

Optional Reading

- Dalindyabo Shabalala, Climate Change, Technology Transfer, And Intellectual Property: A 'Modest Proposal' For an IP Enforcement Moratorium, 2020
- Dana Beldiman, From Bits to Atoms: Does the Open Source Software Model Translate to Open Source Hardware (July 14, 2020). *Santa Clara Computer and High Technology Law Journal*, Vol. 35, No. 23, 2018, <https://ssrn.com/abstract=3650660>, pp.24-39
- Rosa Maria Ballardini, Janne Kaisto, Jukka Simila, Developing Novel Property Concepts In Private Law To Foster The A Circular Economy, *Journal Of Cleaner Protection*, Elsevier, 2020. ▪ Henry Chesbrough & Melissa Appleyard, *Open Innovation and Strategy*, 50 CAL. MGMT. REV. 57, 62 (Fall 2007)

MODULE 5 – THE TENSION BETWEEN BIODIVERSITY AND PATENT LAW

Mandatory Reading

- TRIPS, Art. 27, https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm · Lara Cartwright-Smith, Patenting Genes: What Does *Association for Molecular Pathology v. Myriad Genetics* Mean for Genetic Testing and Research?, (2014) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3982540/>
- Josie Miller, Patenting of gene and protein sequences: an EU and US perspective, 2019 <https://www.taylorwessing.com/synapse/ti-patenting-gene-sequences.html>
- Gabriela Salerno, The World Environment Day and the Brazilian PTO's Green Patent Program, *Lexology* 2021, <https://www.lexology.com/library/detail.aspx?q=de67a442-b42c-4617-afdc-130e1d195aea>

Optional Reading:

- Jacob S. Sherkow and Henry T. Greely, *The History of Patenting Genetic Material*, 2015, <https://www-cdn.law.stanford.edu/wp-content/uploads/2015/12/annurev-genet-112414-054731.pdf>

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- Graham Dutfield, *Sharing the Benefits of Biodiversity: Access regimes and intellectual property rights*, 1999, <http://ipbio.org/pdfs/papers/discussion6.pdf>,
- William Fisher, *The Puzzle of Traditional Knowledge*, 67 *Duke L.J.* 1511 (2018), <https://scholarship.law.duke.edu/dlj/vol67/iss7/4>
- Dana Beldiman, *Commercialization of Genetic Resources: Leveraging Ex Situ Genetic Resources to Shape Downstream IP Protection* (April, 30 2012), in *Intellectual Property At The Crossroads Of Trade*, Edward Elgar (2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2049080

