

Yeshivat Frisch Twelfth Grade Elective: Merging Halachic Judaism with Modern Life

Course Overview

During the first semester of the course, our students will develop an understanding of how halacha responds to technological developments. Students will then utilize this knowledge to design their own capstone engineering project solving a real world problem by merging Halachic Judaism with modern life. This project will include a research component in which students discuss the various halachic approaches relevant to their topic as well as a design element for students to create a working prototype of their solution.

Course Outline

- **Introduction** - The philosophical underpinnings of Judaism's approach to technological development including readings from great Jewish thinkers, as well as source analysis.
- **Section 1** - The response of Rabbinic Judaism to technological developments prior to the household use of electricity.
- **Section 2** - The nature of the *mitzvot* of Shabbat and the “personality/spirit of the Shabbat Day.”
- **Section 3** - The nature of prohibited “work” on Shabbat: *Melacha, Melechet Machshevet* - creative, calculated and physically transformative.
- **Section 4** - The most relevant categories of “work,” *Melachot*, interfacing with modern technology.
- **Section 5** - Electricity and Shabbat
- **Section 6** - Balancing Human Need with Halacha and Technology
- **Section 7** - A Case Study - The Halachic Impact of Technological Advancements of Amplification and Reproduction of Sound

Course requirements:

The students will deliver two major projects over the course of the year.

Project One- Tracing a Technological Development through the Halachic Sources.

Students will utilize the [Chart for Halachic Scientific Method](#) to address the following [points](#).

- What questions does the new technology raise?
- What concepts need to be defined?
- How can one inculcate the new technology into Jewish life, if at all?
- Who benefits from the new technology and what type of benefits?
- How can the technology be modified to meet halachic specifications?

Project Two- Engineering and Halacha Project

Students will research a real-world halachic quandary of their choice related to technology and *Hilchot Shabbat* with the goal of developing their own original approach to the topic based on the relevant sources and responsa literature. Based on their solution and engineering principles, students will create a working prototype of a device to help people with various disabilities and/or extenuating circumstances fully experience Shabbat.

**Yeshivat Frisch Twelfth Grade Elective:
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Course Segments (in greater depth)

Introduction- The Philosophical Underpinnings of Judaism's Approach to Technological Development

- Creation, *Shakai (Divine Name)* , *Migdal Bavel (Tower of Babel)*
- Rav Soloveitchik's approach to technological advancement
- Rav Kook's approach to technological innovation
- *Yagdil Torah VeYehadir (To Promote the Majesty and Beauty of Torah)*
- *Lomed Al Minat Laasot (Learning towards Practice)*

Supporting Document- [Shiur on Technology and Avraham](#)

Supporting Document- [Perspective on Halacha and Technology](#)

Deep Understanding: *It is God's plan and will that man seek to understand and master nature to improve society, build hospitals, make medical advancement and explore the stars.*

Section 1- The Response of Rabbinic Judaism to Technological Developments prior to the Use of Electricity.

- General societal questions, growing pains, and Halachic ramifications
- Examples in the Talmud of technological improvements
 - In the *Mikdash*
 - Machine for *Shechita (Ritual Slaughtering)*
- Legal Viewpoints- The need to define parameters
- Industrial Revolution - Printing Press, Steam engines, Machine Matza

Supporting Document- [Chart for Halachic, Scientific Method](#)

Supporting Document- [Questions toward developing a halachic-technology chart](#)

Deep Understanding: *As technology advanced from relatively simple inventions - for example, the likes of the pulley and water wheel - and as the technology grew more sophisticated - from printing press to steam engines - up until modern times of DNA testing, sophisticated optics and acoustics, etc., rabbinic authorities sought to respond to the Halachic challenges raised by these advancements and fully utilize the new opportunities that presented themselves to improve halachic performance of mitzvos and expand the reach of authentic Jewish living to broader and more diverse populations.*

Section 2- The Nature of the *Mitzvot* of Shabbat and the "Personality of the Shabbat Day".

- The positive and negative commandments. *Zachor and Shamor (Remember and Observe)*
- The personality of the day as amplified by the prophets and the rabbis : *Kavod (Respecting the Sabbath)*, *Oneg (Enjoyment of the Sabbath)*, *V'dabru Davar (Mundane Speech)*, *Ziluta D'Shabbat (Degrading the Sabbath)*

Primary Texts:

[From the Source with Spirit by Rabbi Binyamin Zimmerman](#)

Maimonides: Mishna Torah: *Hilchot Shabbat (The Laws of the Sabbath)*

Shulchan Aruch : *Hilchot Shabbat*

Yeshivat Frisch Twelfth Grade Elective: Merging Halachic Judaism with Modern Life

Deep Understanding: Many of the Halachic challenges associated with the use of modern technology are associated with the permissibility of the use of these devices on Shabbat. Understanding the basics of Shabbat observance, both the do's and the don't's that together form the complete Shabbat experience, will allow us to understand the role of new technology on Shabbat.

Section 3- The Nature of "Work" on Shabbat: *Melacha (Creative Work), Melachet Machshevet (Work with Intent)*

- *Melacha*
 - Defining the term
 - Concept of *Toladah (Derivative of the Work)*
 - Distinguishing between Biblical and Rabbinic infractions.
- The concept of *Melechat Machshevet* and its varied and manifold implications.
 - *Gerama (Indirect Causation) and normal usage*
 - *Shinuy (Irregular Performance)*
 - *D'var Shaino Mitkavain (Act Without Intention)*
 - *Psik Reisha (Inevitable Result)*
 - *Melacha Shaino Tziricha Lagufa (Action Done Not for Its Original Purpose)*

Primary Texts:

[From the Source with Spirit by Rabbi Binyomin Zimmerman](#)

Maimonides: Mishna Torah: Hilchot Shabbat

Shulchan Aruch : Hilchot Shabbat

Deep Understanding: The term *Melacha* appears in the Torah in the context of creation, the building of the Mishkan and the laws of Shabbat. What emerges is an understanding that *Melacha* or "prohibited work" is not based on human exertion or physical effort, but rather a *Melacha* is a purposeful, designed and creative activity based on categories of actions used both in and to create the Mishkan.

Section 4- The Most Relevant Categories of "Work", *Melachot*, interfacing with Modern Technology.

- *Ha'avarah* - Kindling, why specified
- *Boneh*- Building
- *Makeh Bepatish* - Completing
- *Bishul*- Cooking
- *Kotev Umochek* - Writing and Erasing

Primary Texts:

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Maimonides: Mishna Torah: Hilchot Shabbat

Shulchan Aruch : Hilchot Shabbat

**Yeshivat Frisch Twelfth Grade Elective:
Merging Halachic Judaism with Modern Life**

Deep Understanding: *The elements of each category of Melacha must be carefully defined and then analyzed to understand conceptually the designated purpose the melacha was used in the Mishkan (Tabernacle). The purpose and goal of the activity done on Shabbat must carefully compared to the purpose and goal of the activity done in the Mishkan in order to conclude whether the activity in question is prohibited on a Biblical level, Rabbinic level, simply discouraged, but not punishable or allowed outright.*

Section 5- Electricity and Shabbat

- Edison's light bulb
- Basics of Shabbat - *Zachor V'Shamor (Remembering and Observing)* (from Sources with Spirit)
- Aspects of Shabbat - (Sources with Spirit)
- Philosophy of Shabbat - (Sources with Spirit)
- Don't- Shamor
 - *Melacha* Sources with Spirit
 - Principles of *Melechet Machshevet (Work with Intent)* (Sources with Spirit)
- Electricity for *Mitzvot- Hadlakat Nerot* (Source with Spirit)
 - An analysis of the conceptual nature of Shabbat Candles: Its relationship to *Kavod Shabbat (Honoring the Sabbath)*, *Oneg Shabbat (Enjoyment of Sabbath)*, *Shalom Habayit (Tranquility in the Home)*. A deeper understanding of these three components of Shabbat candles and their impact on the use of candles.
 - The requirement of a “burning wick “ as it impacts the type of electric candle to be used: i.e., incandescent bulb as being superior to a neon bulb etc.

Primary Texts:

[From the Source with Spirit by Rabbi Binyomin Zimmerman](#)

Maimonides: Mishna Torah: Hilchot Shabbat

Shulchan Aruch : Hilchot Shabbat

RJJ Journal-Broyde and Jachter: [Elevators on Shabbat](#)

RJJ Journal-Jachter and Broyde: [Electrically Produced Fire](#)

RJJ Journal-Jachter and Broyde: [The Use of Electricity on Shabbat and Yom Tov](#)

RJJ Journal-Broyde: [Modern Technology and the Sabbath](#)

Deep Understanding: *While the creating an electric circuit and generating light and heat through the use of electricity is universally prohibited by traditional Rabbinic authorities, the nature , categorization, and level of prohibition of the use of electricity is fiercely debated. Understanding the categorization of each decisor is crucial in understanding the use and implementation of electronic devices for fulfilling mitzvot and avoiding Shabbat prohibitions.*

Section 6- Balancing the Human Need with Halacha and Technology

- Human Condition and Needs
 - *Pikuach Nefesh (Saving a Life)*
 - *Choleh (Sick Person)* - What needs really classify as necessary *Oneg Shabbat*
 - *Choleh kol gufo (Sick Throughout the Body)* - Handicapped and disabled

Yeshivat Frisch Twelfth Grade Elective: Merging Halachic Judaism with Modern Life

- *Amira LeAkum (Use of a non-Jew to do work on the Shabbat)* - Is it more proper to make use of non-Jews - is that really an option?
- Technological Advancement
 - Automation
 - Factories
 - Shabbat elevators
 - Sensors
 - Touch screen technology
- Means of Technological Modification
 - **Automation** - Automating in advance in order to benefit from electricity on Shabbat
 - **Gerama** - Indirect causation- When is it permitted and when is it appropriate?
 - **Shinui Zerem** - Modulating the strength of an existing current
 - **Hamshachat Matsav** - Maintaining a pre-existing state

Articles by Rav Yisrael Rozen, founder and director of the Zomet Institute, appearing in Techumim Volumes 26 and 27 from *Bechazrot Beit Hashem- Ma'amarim BeTechumi Technologia VeHalacha*.

Deep Understanding: *Rabbinic Judaism weighs the impact of particular human needs and conditions and the Halachic options available based on technological innovations to come up with a solution respecting the dignity of man and the integrity of halacha.*

Section 7- A Case Study -The Halachic Impact of Technological Advancements of Amplification and Reproduction of Sound

- Using amplification of sound in the performance of *mitzvot*
 - *Tekiat shofar (Sounding of the Shofar)*
 - Reading of the *megilla*
 - *Kriat hatorah (Reading the Torah)*
 - *Tefilla (Prayer)*

Deep Understanding: *Through an examination of the responsa literature of the later achronim (halachic authorities of the last few centuries), one realizes that the early teshuvot demonstrated a less than thorough understanding of the scientific principles, mechanics and nature of the amplification of sound. Later authorities discovered that sound is converted into other forms of energy and then reconverted back into sound and differed as to how this new understanding of sound affected its use for kiyum hamitzvot (fulfilling both Torah and Rabbinic commandments). The authorities also distinguished between the different nature of the Halachic requirements of shofar, megillah, havdalah, tefila and kriat hatorah. The examination of tshuvot, rabbinic responsa, (and sources quoted therein) include Igrot Moshe, Minchat Shlomo (Rabbi Shlomo Zalman Auerbach, Lubavitcher Rebbe(Rabbi Menachem Schneerson, Yechava Daay (Rabbi Ovadya Yosef) and article of Rabbi Asher Weiss.*

- The use of a microphone and hearing aids on Shabbat and Yomtov

Deep Understanding: *The examination of the likely biblical and rabbinic prohibitions as well as policy considerations in the use of microphone and hearing aids on Shabbat and Yom Tov.*

**Yeshivat Frisch Twelfth Grade Elective:
Merging Halachic Judaism with Modern Life**

Attempts to weigh and evaluate Halachic considerations such as consideration for human dignity (Kavod Habriot) and degradation of Shabbat (Zilzula DeShabbat) and their impact on the propriety of differentiating between the use of a microphone and hearing aids on Shabbat and Yom Tov. The examination of teshuvot (and sources quoted therein) include Teshuvot of Rabbi Moshe Feinstein , Rabbi Shlomo Zalman Auerbach, Rabbi Ovadya Yosef and Rabbi Asher Weiss. The Sanctity of Shabbat (Cohen) siman 7

Primary Texts:

[*Shemiet Kol Shofar Bemachshir Shemia Harav Asher Weiss*](#)

[*Yechava Daat 3-54*](#)

[*Iqrot Moshe 3: 55*](#)

[*Iqrot Moshe 4: 84-85*](#)

[*Minchat Shelomoh 1:9*](#)

[*Lubavitcher Rebbe, Teshuvot U'Biurim BeShulchan Aruch 137*](#)

[*Sanctity of Shabbos: BeDin Zilzula DeShabbat VeAfas Milta*](#)