SF1690 HT22 timeline

Below is an approximate schedule for what we will go through each session. All material may be found in the following books:

- Calculus: "Calculus: A Complete Course, 10th Edition" by Robert A. Adams & Christopher Essex, ISBN 978-0135732588
- Algebra: "Contemporary Linear Algebra" by Howard Anton & Robert C. Busby, ISBN: 978-0471163626

Week 35

- Lecture 1: Calculus book sections P1 and P2 - real number, the real line, absolute values, equations and equalities, Cartesion coordinates, distances, equations of lines.
- Lecture 2: Calculus book section P3 - lines, parabolas, circles, ellipses, and hyperbolas.
- Lecture 3: Calculus book section P4 - Functions, domain and range, graphs of functions, even and odd function.

Week 36

- Lecture 4: Calculus book P5 - combining functions to create new functions.
- Lecture 5: Calculus book P6 - Polynomials and rational functions, roots, and polynomial factorizations.
- Lecture 6: Calculus book P7 - Trigonometric functions

Week 37

- Lecture 7: Calculus book section 3.1 - Inverse functions
- Lecture 8: Calculus book section 3.5 - Inverse trigonometric functions (without derivatives)

Week 38

- Lecture 9: Calculus book 3.2 - Exponential and logarithmic functions (without derivatives and integral statements)
- Lecture 10: Calculus book 3.3 and 3.6 - Natural exponentials and logarithms, and Hyperbolic functions (without derivatives)

Week 39

- Lecture 11: Calculus Appendix A-1 - Definition of complex numbers
- Lecture 12: Calculus Appendix A-7 - de Moivre's theorem, roots of complex numbers.

Week 40

- Lecture 13: Algebra book section 1.1 and 1.2 - vectors, dot product, orthogonality
- Lecture 14: Algebra book section 1.3: Vector equations of lines and planes

Week 41

- Lecture 15: Algebra book section 4.3: Cross products (without matrices and systems of linear equations statements)
- Lecture 16: Review of course.