**Subjects included in the program, which are not taught by the instructor in the audience, but which are to be studied freely by the students:**

1. Linear Transformations
2. The Kernel and Range of a Linear Transformation
3. Matrices for Linear Transformations
4. Transition Matrices and Similarity
5. Applications of Linear Transformations
6. Inner Product Spaces
7. Orthonormal Bases: Gram-Schmidt Process
8. Mathematical Models and Least Squares Analysis
9. Applications of Inner Product Spaces
10. Length and Dot Product in