All registered students are required to do a final project. This final project, implemented using Matlab, must be a speech or audio processing system that accomplishes a simple or a complex task—e.g., pitch detection, voiced-unvoiced detection, speech/silence classification, speech synthesis, speech recognition, speaker recognition, etc.

Every student or group is also required to give a 10-minute PowerPoint presentation of their project to the entire class. The presentation must include:  
 – A short description of the project and its objectives  
 – An explanation of the implemented algorithm and relevant theory  
 – A demonstration of the working program – i.e., results obtained  
 when running the program

Suggestions for Final Projects  
 1. Pitch detector – time domain, autocorrelation, cepstrum, LPC, etc.  
 2. Voiced/Unvoiced/Silence detector  
 3. Formant analyzer/tracker  
 4. Simple speech recognizer – e.g., isolated digits, speaker trained  
 5. Speech enhancement system (noise reduction)  
 6. AI-driven speech systems