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Jane H Long* (longjh@sfasu.edu), Department of Mathematics & Statistics, Stephen F. Austin State University, P.O. Box 13040, SFA Station, Nacogdoches, TX 75962-3040. One Model for a Successful Capstone Course in Problem Solving. Preliminary report.

The MAA's Committee on the Undergraduate Program in Mathematics recommends that majors in the mathematical sciences should work on "a substantial mathematical project that involves techniques and concepts beyond the typical content of a single course." Constraints including number of required course hours for students and advising time for faculty can make this important recommendation difficult to implement. We present one model for a successful one-hour capstone course that prompts students to synthesize the mathematical knowledge they have gathered through the exploration of simply stated but non-routine problems, with both quick and extended investigation. Examples of problems and administrative details of the course will be presented. (Received September 26, 2017)