Mathematics Examination Feedback Form

This form is intended to provide generic feedback to students on examination performance in individual units, in line with university code of practice for the assessment of taught programmes. Its purpose is to help students to develop their skills, knowledge and understanding and help them evaluate their current level of performance.

Unit Title:	Ordinary Differential Equations 2
Unit Code:	MATH 20101
Examination Markers:	Stephen Wiggins

Common areas that were well done:
Q1: Students knew how to solve (b) with either a direct computation or Bendixson's criterion. e) Students understood that trajectories could not cross invariant manifolds. Q2: Most students did well on all parts of this problem. Q3: Most students did well on all parts of this question. Q4: This question was a variation of problems 2, 3, and 4 of the second problem set. Students that did not recognize this had great difficulty with the problem.

Common errors, misunderstandings or other areas requiring improvement:
Q1: a) caused some problems for some students as they did not understand how to obtain the solutions of the equations, which defined the flow. Q2: d) Some students had difficulty sketching the center manifold and the flow on the center manifold. Q3:b) Some students did not understand the nature of the domains of polar coordinates, which led to difficulty with the proper interpretation of the bifurcations. d) Some students were unable to correctly identify the different bifurcations. Q4: a) Some students did not understand how to interpret the meaning the of the Bendixson criterion not holding on the x axis. In c), d), and e) students did not recognize that explicit calculations were not required, but that the results followed from problems 2, 3, 4 of the second problem set.

General comments on the paper:
Students that engaged with the course, regularly attended lectures, and completed the weekly problem sets did very well in the course.