Task	Personnel					Sum
	SENG	ENG	EIT	LAB	AA	
Task 1: Existing Bridge Design Analysis	**0**	**15**	**27**	**0**	**39**	**81**
Task 1.1 Loading Scenarios	0	5	10	0	15	30
Task 1.2 Existing Connection Capacities	0	10	17	0	24	51
Task 1.2.1 Analysis of Previous Year's Connections	0	1	2	0	3	6
Task 1.2.2 Tensile Strength	0	3	5	0	7	15
Task 1.2.3 Bearing and Tearout Strength	0	3	5	0	7	15
Task 1.2.4 Tensile and Shear Strength of Bolts and Threaded Parts	0	3	5	0	7	15
Task 2: New Connection Designs	**15**	**55**	**30**	**0**	**0**	**100**
Task 2.1 Solutions To Existing Connection Design Flaws	5	20	10	0	0	35
Task 2.2 Designing to Withstand Minimum Loading For Each Scenario	5	20	10	0	0	35
Task 2.3 Designing to Outperform Existing Bridge Performance	5	15	10	0	0	30
Task 2.3.1 Designed Connection Calculations	5	15	10	0	0	30
Task 3: Modeling and Analysis of the New Design	**19**	**50**	**22**	**0**	**0**	**91**
Task 3.1 SolidWorks Connection Models	10	20	10	0	0	40
Task 3.2 Determination of Theoretical Failure of New Design Using RISA	3	10	4	0	0	17
Task 3.3 Prediction of New Max Load Capacity	3	10	4	0	0	17
Task 3.4 Prediction of New Failure Points	3	10	4	0	0	17
Task 4: New Plan Sets	**4**	**2**	**0**	**20**	**0**	**26**
Task 4.1 New Overall Bridge Plan Sets	2	1	0	10	0	13
Task 4.2 New Connection Plan Sets	2	1	0	10	0	13
Task 5: Construction Materials	**0**	**4**	**0**	**40**	**0**	**44**
Task 5.1 Steel Tubing	0	1	0	10	0	11
Task 5.2 Plate Steel	0	1	0	10	0	11
Task 5.3 Hardware	0	1	0	10	0	11
Task 5.4 All Other Miscellaneous Materials	0	1	0	10	0	11
Task 6: Fabrication	**20**	**40**	**30**	**80**	**10**	**180**
Task 6.1 In-House Fabrication	20	40	30	50	10	**150**
Task 6.2 Outsourced Fabrication	0	0	0	30	0	**30**
Task 7: Bridge Assembly	**10**	**10**	**10**	**15**	**5**	**50**
Task 8 Loading Bridge To Failure	**3**	**3**	**3**	**3**	**3**	**15**
Task 9 Performance Report	**9**	**15**	**30**	**0**	**15**	**69**
Task 9.1 Data From Loading and Failure	3	5	10	0	5	**23**
Task 9.2 Predicted Versus Actual Results	3	5	10	0	5	**23**
Task 9.3 Updated Design Versus The Original Design	3	5	10	0	5	**23**
Total Personnel Hours	**80**	**194**	**152**	**158**	**72**	**656**