SciDept

**Sample Only**

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Proposal

Revision 3

**1. Overview**

This project will provide a model of the funds required to create and sustain a new science department within a local university over the next twelve years. The name of this project will be “SciDept.”

As part of a faculty-driven strategic planning process, the University identified a need to invest in a particular area of science, which is based on a new cutting-edge technology. There are currently several faculty at the university who use this technology in their work, and are willing to leave their current department and move into a new one. The university recognizes, however, that it also must recruit into the department several additional faculty who are not currently at the university.

The University has already identified a leader for the department, who has a firm academic vision and plan for growth. This potential department chair will only accept the job if the University can accommodate his plan. He has an offer at another University, so the University has a limited amount of time to determine whether it can afford to make the investment as outlined by the potential department chair.

The University is interested in understanding, at a high level, how much money it must invest, per year, over the next twelve years to meet this plan. As the largest expense drivers relate to the tenured and tenure-track faculty, including their salary, their start-up packages and their space, the University would like the model to focus primarily on revenue and expenses related to the faculty. Administrative costs will be assumed to be equal to the negotiated federal overhead rate. It is also assumed that the costs of running each faculty member’s lab will be covered by the sponsored research that faculty member generates.

The University has several sources of revenue to fund the new department: restricted endowment, gifts, royalties from patents, and sponsored funding. As the largest sources of revenue for the department will be the sponsored funding and endowment funding the faculty generate, the University is interested in seeing two scenarios: a) best case (high sponsored funding, high endowment returns); and b) worst-case (reduced sponsored research projections, low endowment returns).

In the best-case scenario, the model will assume that faculty are as successful at securing sponsored funding as the overall average success rate for the University. In the worst-case scenario, the model will assume that faculty have a more difficult time obtaining grants (i.e., their success rate declines).

The potential for not being as successful with obtaining grant funding is a real one, as this department will be performing a new type of science and riskier or untested fields of science are typically more difficult to fund. The endowment managers have provided range of endowment projections. Whatever expenses are not covered by the revenue streams listed above will need to be paid for through unrestricted funds.

**2. Budget**

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| --- | --- |
| *Total Time – Team Effort* | *32 hours* |
| Planning | 6 hours |
| Modeling | 10 hours |
| Documents | 12 hours |
| Execution | 4 hours |

**3. Team**

Members -

Coordinator –

**4. Inputs, parameters, outputs**

*Inputs*

* Faculty data: Faculty recruitment schedule, number, rank (junior versus senior), associated revenue streams (sponsored, endowed funding, fundraising potential royalty or royalty potential), anticipated promotion dates, cost of living increases
* Space available (includes lab and office) in square feet: space for each faculty slot; renewal schedule
* Lab costs (meaning, how much it costs to purchase equipment, maintain animals and pay for lab personnel)

*Parameters*

* Productivity (i.e., how many grants faculty apply for)
* Success rate (i.e., how many grants are funded)
* Endowment returns
* Endowment payout
* Average faculty salary and fringe: senior faculty, junior faculty, chair
* Average faculty start-up package: senior faculty, junior faculty, chair
* Space costs: average renovation cost per square foot ; average maintenance cost; proportion cash-funded; debt service (*Note: while renovation costs have typically been debt-funded in the past, the University is currently over-leveraged and is requiring a portion of the capital investments to be cash funded.)*
* Federal overhead administrative rate (excluding space costs)
* Percentage of salary hard funded (meaning, not on grants)
* Inflation

*Outputs*

* Total faculty costs per year (including salary, fringe, startup, animal costs, associated lab personnel)
* Total space costs per year (maintenance, capital investment)
* Total overall expenses per year
* Total revenue per year (including the two sponsored research scenarios) by source
* Total unrestricted funds required per year

1. **Schedule and milestones**

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| --- | --- | --- |
| *Due Date* | *Tasks* | *Deliverables* |
| *October 7, 2010* | Project Initiation: team formation, logistics & communications setup.  Define problem, establish budget and schedule. | * Requirements for Word Documents * SciDept Proposal |
| *October 12, 2010* | Work Breakdown/ allocate tasks. Preliminary Design: Define required worksheets, establish values for input streams and parameters, establish naming conventions, define names for inputs, parameters, intermediate results and outputs | Team Status Meeting |
| *October 28, 2010* | *Detailed Design:*  Establish methods to achieve desired outputs.  Development: Begin supporting worksheets and building model. | * *Requirements for Excel Documents* * *Midpoint Status Report* |
| *November 18, 2010* | Complete build and test Scenario 1 model. Build and test Scenarios 2 model. Begin reference manual and users guide. Compare and analyze Model 1 and Model 2 outputs | Team Status Meeting |
| *December 1, 2010* | Run acceptance tests based on established criteria. (model extension, duplication) Develop First draft of Final Report, Reference Guide, Users Guide | Team Status Meeting |
| *December 16, 2010* | Refine and complete project documents and models. Final team review and signoff. Submit all final materials | * Final Report * Users Guide * Reference Manual * Scenario 1 Project Model * Scenario 2 Project Model |