



NITTE
EDUCATION TRUST

**NMAM INSTITUTE
OF TECHNOLOGY**

Best Practices 2019-20

1. Title of Best Practice: Simulation based teaching

- **Objective**

To facilitate students to integrate, synthesize and apply all their previous learnings both within and outside the management classroom.

- **Context**

The Objective of the Capstone Business Simulation Program, Everest, patient zero, IBM Blumix is that a simulation game ensures participants get hands-on experience and detailed insights of practical operations of a company and better prepare them to face the challenges of the corporate world. Simulation games benefit students by integrating their entire learning of the MBA Program and enhance their analytical ability along with business acumen, which prepares them to be competent business managers in the corporate world

- **Practice:**

IBM Innov 8- Business Process management Simulation EM I: Each student individually simulates and learns concepts through simulation using INNOV 8 supply chain management simulation game and other games for operations management. They critically analyze and appreciate different aspects of business process management.

Integration of Supply chain concepts with Bloomberg: This assignment is executed by using Bloomberg terminal. Students need to use the code <SPLC> to demonstrate the understanding of the subject (Supplier Relationship and Supplier Scoring and Assessment) using Bloomberg. The student needs to submit a report with plagiarism check for the same. This assignment will be executed by using Bloomberg terminals, the Student needs to use the code <BMAP> and then demonstrate the understanding of the subject (Maritime Logistics) using Bloomberg.

The investment challenge: This challenge is done through the Bloomberg TMSG function. TMSG is a professional idea generation platform used by traders and analysts to share their investment ideas for external or internal evaluation. Through this, participants use an industry-standard platform. TMSG provides a simulated environment that is identical to the real investment

management. The participants are required to make investment decisions using real data, news and company reports, the same as a professional equity analyst.

Capstone Simulation: The Capstone Business Simulation Program is a world-renowned Simulation game that gives participants an opportunity to manage a virtual company by assuming top management positions across different functions in an industry with competitor companies managed by other student groups. Student teams will be making business decisions over multiple time periods – and examine their impact on the teams’ qualitative and quantitative performance. Each student is assessed based on their contribution to and their team’s performance in the Capstone business simulation. In addition, students will be assessed individually on their business acumen as learned in the simulation along with their business knowledge utilizing the Comp-XM online ‘final exam’. The Capstone and the Comp-XM enable both team benchmarking and individual comparisons on an International basis with other programs that also utilize the Capstone and the Comp-XM. The course utilizes a computer-based simulation as the core teaching platform. Working in teams, students make strategic and tactical decisions in all domains of the business: product design and development, marketing and sales, human resources and employee relations, operations and production, management and finance – with an overlay of corporate governance and strategic management. Upon completion of the course, students should have developed a workable, sound and integrated comprehension of business and the strategic management process and be able to apply this knowledge.

The Leadership and Team Simulation Everest V 3 from Harvard Publishing Division, uses the context of a Mount Everest expedition to reinforce student learning in group dynamics and leadership.

- a. This multi user online simulation presents a series of problem solving and decision-making challenges to student teams in the classroom.
- b. Team members analyze information on weather, health conditions, supplies, goals, and hiking speed, and determine how much of that information to communicate to their teammates.
- c. Students can experience how teams make complex decisions when critical information is distributed unevenly among members and when members have partially conflicting goals

■ **Evidence of Success**

The implementation of simulation-based teaching has resulted in students benefitting with enhanced application of management concepts. For instance: the average marks that the students secure in Capstone has now crossed the international benchmark of 700.

■ **Problems Encountered and Resources Required**

Adjusting to new practice (Faculty and students) –With constant persuasion, training and by mentoring, both the faculty and students have benefitted.

2. **Title of the Practice:** Active learning on Mechatronics.

- **Objective:**
To impart practical experience on automation technology to the students.

- **Context**
Mechatronic course provides theoretical knowledge to the students. However, current scenario requires industry ready engineers. However, to gain the practical exposure on latest automation technology and to learn fundamental concepts effectively, active learning in mechatronics lab is introduced.

- **Practice**
Active learning on mechatronics has been set-up as a part of Memorandum of Understanding between NMAM Institute of Technology and Festo India Private Ltd. (FIPL). This lab currently has mobile workstation for pneumatics unit (double sided). It has basic pneumatic training kit along with add-on basic electro pneumatic and Programmable Logic Controller (PLC) Training kit. Active learning lab mainly consists of industrial problems for which pneumatic, electro pneumatic and PLC circuits are designed and executed on the training kit as well as in the Fluid sim simulation software by the students.

- **Evidence of Success**
The practical exposure to the students on automation technology has resulted in improvement in student learning. The concepts are clear to the students and they are implementing automation techniques in their project work. The students have given positive feedback. Majority of the students were of the view that active learning lab was useful in enhancing their knowledge with practical exposure. They suggested that the active learning mechatronics lab should be made as a regular lab with credit benefits and increase the pneumatic kit along with provision for computers to do simulation.

- **Problems Encountered and Resources Required**
It was felt that full-fledged fluids simulation lab is essential for simulating and verifying the experiments in active learning mechatronics lab.