

ISE 562; Dr. Smith

## Decision Theory

### Decision Tree for Professor Smith's Shoulder

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- Dr S awoke to intense pain in left shoulder.
- Dr S went to sports medicine clinic for diagnosis; referred to orthopaedic surgeon
- Decision criteria important to Dr S:
  - Correct diagnosis of problem
  - Elimination of pain
  - Restoration of shoulder power to 100% activity and range of motion
  - Minimization of cost

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# Assignment Project Exam Help

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### Options facing Dr S:

- Do nothing
- Go to PPO (preferred provider organization)
- Go to HMO (health maintenance organization)
- Where to get testing done
- Surgery impact and timing on schedule for next 6 months (vacation)
- Distance to travel for any physical therapy
- Back off on martial arts

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How to organize this?

What are the alternatives?

What are the uncertain events?

What are the decision criteria?

What are the payoffs?

Draft  
Decision  
Tree

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