COM3529 Software Testing and Analysis

Coverage Criteria: Conclusions

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The Pros and Cons of Coverage

- The **"Cons"**

  - They can generate **too many** test requirements

  - Not all test requirements are **useful**

  - Higher coverage doesn't guarantee that more bugs will be found

- The **"Pros"**

  - Coverage criteria ensure that our test suites have certain properties or strengths

  - Coverage criteria tell us **how much** testing has been done and **when to stop testing**

Software Testing Research and Coverage Criteria

- The relationship between actual faults, failures and types of coverage and coverage levels

- Where to concentrate testing in order to find faults and failures

- What the ideal test suite size is

- How to check that a fault has already been repaired, and has not introduced further faults

- Can a fault be automatically repaired?

- ...