

Broad problem
formulation and
module breakdown

Section 2.1

**Development &
validation** of each
simulation module

Sections 2.2-2.4

Full optimization
**problem
formulation**

Section 3.1

Problem
characterization and
solution process

Section 3.2

Iteration based on trial optimization results

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graph LR; A[Broad problem formulation and module breakdown  
Section 2.1] --> B[Development & validation of each simulation module  
Sections 2.2-2.4]; B --> C[Full optimization problem formulation  
Section 3.1]; C --> D[Problem characterization and solution process  
Section 3.2]; D --> A; D --> B; D --> C;
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The diagram illustrates a four-stage process flow for optimization. Each stage is represented by a chevron-shaped box pointing to the right. The stages are: 1. Broad problem formulation and module breakdown (orange), 2. Development & validation of each simulation module (yellow), 3. Full optimization problem formulation (green), and 4. Problem characterization and solution process (blue). Below the boxes, a large blue arrow points from the final stage back to the first stage, with three smaller blue arrows pointing upwards to the intermediate stages. The text 'Iteration based on trial optimization results' is centered below the main feedback arrow.