

### 35 U.S.C. 101 - Patentable Subject Matter in the United States

- Patentable Subject Matter in the US is governed by the statute, 35 U.S.C. 101, which states:
  - “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”
  
- Thresholds to receiving a patent:
  - 101 – Patent Eligible Subject Matter
  - 102 – Novel
  - 103 – Nonobvious
  - 112 – Contain a fully and particularly described description
  
- 35 USC 101 defines patentable subject matter to include machines, manufactures, compositions of matter and processes. There can be overlap between some of the categories.
  - Process
    - A method or a series of acts to obtain a specific result.
    - Apparatus or mechanical device
  - Manufactures
    - Man-made products (by hand or machine) from raw or prepared materials
  - Compositions of Matter
    - Composition of two or more substances such as chemical compounds, mechanical mixtures, etc.
  
- Exceptions to Patentable Subject Matter
  - Abstract Ideas
    - E.g. Mathematical Algorithms, etc.
    - E.g. Bilski.
  - Laws of Nature
    - E.g. Newton’s laws, Einstein’s Theory of Relativity, etc.
    - E.g. Prometheus.
  - Physical Phenomena
    - E.g. electromagnetism, steam power, electricity, qualities of metals, etc.
  - Discoveries of these are “manifestations of ...nature, free to all men and reserved exclusively to none.” (Funk, 68 S.Ct. 440, 441 (1948)).
  - However, methods and products applying abstract ideas, natural phenomena, or laws of nature to perform a real-world function are patent eligible (MPEP 2106).

- Ex: Applying a mathematical formula by way of a computer to claim a method for molding raw, uncured synthetic rubber into cured precision products. (Diehr, 450 U.S. 175, 177 (1981)).

### 35 U.S.C. 112 – Requirements for Specification in the United States

- 35 USC 112 sets forth the minimum requirements for the quality and quantity of information that must be disclosed in the specification to justify the grant of exclusive rights.
  - Specification
    - Must satisfy the 35 USC 112, first paragraph, and include:
      - Written Description
      - Enablement
      - Best Mode
  - Written description must demonstrate that the applicant had possession of the invention.
  - Enablement
    - Specification must contain a description of the invention sufficient to enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation.
    - Undue Experimentation (“Wands Factors”)
      - Breadth of claims;
      - Nature of the Invention;
      - State of prior art;
      - Level of one of ordinary skill;
      - Level of predictability in the art;
      - Amount of direction provided by inventor;
      - Existence of working factors;
      - Amount of experimentation need to use or make the invention based on the disclosure
  - The best mode requirement prevents inventors from disclosing only their second-best embodiment, while retaining the best for themselves. In practice, a rejection based upon the lack of best mode is rarely issued. Effective September 16, 2011, the lack of best mode is no longer a basis for claim invalidation.