I. Enforceability
    a. Inequitable Conduct
        i. Arises from the duty of candor and good faith before the PTO
        ii. Elements
            1. Materiality
                a. The reference is not cumulative
                    i. All affidavits are material even if cumulative
                b. The reference either
                    i. Creates a *prima facie* case of unpatentability
                    ii. Supports a position taken by the PTO
                    iii. Undermines a position taken by the applicant
            2. Intent
                a. Deceitful intent (*Kingsdown Medical Consultants v. Hollister*)
                b. Gross negligence does not imply deceitful intent (but may be taken into consideration)
        iii. Burden of proof:
            1. Clear and convincing evidence
            2. Balancing test: strong evidence of one factor will permit weaker evidence of the other.
        iv. Conduct the PTO is aware of is not inequitable
        v. Inequitable conduct can only be cured while the application is still pending before the PTO
        vi. Effect of inequitable conduct:
            1. Patent is unenforceable against any party
            2. Particularly egregious conduct may result in the unenforceability of continuation and CIP patents
            3. Doctrine of unclean hands:
                a. If there is an immediate and necessary relationship between two patents then the other patents will also be held unenforceable
                b. Generally does not extend to divisional applications
    b. Patent Misuse
        i. Examples
            1. Tying
            2. Extending the patent term beyond its limits (licensee cannot be required to pay for use beyond the expiration date, but may make payments after the expiration date)
            3. Mandatory packaging licensing
            4. Attempting to enforce a patent known to be invalid or not infringed
            5. Field of use

            a. Patentee restricts the field where the patent may be used
            b. Does the restriction exceed the patent grant, and was it reasonable?
    ii. Sales
        1. Unconditional sale exhausts patentee's right to control use of the product after sale
        2. Does not apply to conditional sales
        3. A conditional sale may be misuse where it impermissibly broadens the physical or temporal scope of the patent with anticompetitive effect
    iii. Effect
        1. Patent will not be enforceable until the misuse is purged
        2. Defendant is not entitled to damages
    iv. Market power
        1. Patent misuser must have market power
        2. Market power is presumed in tying cases
        3. Factors
            a. Number/Strength of competitors
            b. Potential for entry into the market
            c. Consumer sensitivity to price changes
            d. Market innovations
            e. Whether defendant is a multimarket firm
            f. Concentration of market
            g. Historic intensity of competition
            h. Impact of natural or legal environment
    v. Burden of Proof: Clear and Convincing Evidence
c. Antitrust Violations/Counterclaims
    i. Types of Antitrust Claims
        1. Asserted patent obtained through knowing and willful fraud (*Walker Process*)
            a. Misrepresentation must evince a clear intent to deceive the examiner
            b. The patent would not have issued but for the fraud
        2. Lawsuit is a mere sham (*PRE*)
            a. Subjectively brought in bad faith
            b. Lawsuit based on theory of infringement or validity that is objectively baseless (no reasonable litigant could expect to win)
    ii. Burden of proof: Clear and convincing evidence?
    iii. Effect: ?
d. Litigation Laches
    i. Elements
        1. Delay in bringing suit was unreasonable and unexaplainable
        2. Infringer suffered material prejudice

            a. Material prejudice: Loss of evidence, inability for defendant to present witnesses
            b. Economic: loss of investments or damages which would have been avoided by earlier suit
    ii. Presumption
        1. Delay of six years creates presumption of laches
        2. Presumption shifts burden of going forward with evidence
    iii. Burden of proof: Preponderance of the evidence
    iv. Excuses
        1. Medical excuse
        2. Poverty
        3. Negotiations with defendant
        4. Wartime
        5. Extent of infringement
        6. Dispute over patent ownership
        7. Particularly egregious conduct by the infringer
    v. Effect: Precludes damages for past acts
e. Equitable Estoppel
    i. Elements
        1. Patentee's misleading conduct leads the infringer to reasonably infer that the patentee will not enforce its patent
        2. Infringer relies on the conduct
        3. Reliance materially prejudiced defendant
            a. Material prejudice: Loss of evidence, inability for defendant to present witnesses
            b. Economic: loss of investments or damages which would have been avoided by earlier suit
    ii. No presumption
    iii. Infringer must be aware of patent for equitable estoppel to apply
    iv. Silence: Will not create an estoppel unless
        1. The patentee has a duty to speak
        2. Continued silence reinforces inference from plaintiff's known acquiescence that defendant will not be sued
        3. On summary judgment the inference must be the only possible inference
    v. Burden of proof: Preponderance of the evidence
    vi. Effect: Patentee is barred from asserting the claim as to this infringer
f. Prosecution Laches
    i. A delay of unreasonable or unexplainable period of time in the prosecution of the patent application
    ii. How long is too long?
        1. Moore – 8 years
        2. Moore – two continuations may be acceptable; more is suspect
    iii. Reasons for delay

            1. PTO delay
            2. Board/Federal Circuit appeals
            3. Secrecy orders

II. Claim Construction
   a. Claim construction is a matter of law determined by the judge (*Markman v. Westview Instruments*)
   b. Canons of Claim Construction
      i. Claims should be interpreted such that their preferred embodiment falls within their scope
         1. Exception when applicant amends claims during prosecution to disavow the preferred embodiment
      ii. Patent claims are not necessarily limited to preferred embodiments, but limitations from the written description should not be read into claims
         1. If the written description contains a clear disclaimer, the patentee has limited claim scope (*SciMed*)
         2. Doctrine of equivalents cannot be used to read an element out of the claims
         3. Preferred embodiment may limit claim where description indicates that preferred embodiment *is* the invention
      iii. Doctrine of Claim Differentiation: Two claims in the same patent should be interpreted as having different scope
      iv. Claims should be interpreted so as to preserve their validity
         1. Available only when the claims are amenable to either construction
         2. If the only way to render the claim is invalid, the claim is out
      v. When there is an equal choice between a broad and narrow construction, the narrow construction should always be adopted
      vi. A term used often in patent claims should be construed consistently
         1. If a parent application uses a term, child applications should use the term in the same way
         2. Similarly if a child application uses a term, the parent should use the term in the same way
      vii. A preamble is a limitation only when it breathes life and meaning into the claims
         1. A preamble is a limitation when
            a. It recites essential structure or steps
            b. Provides antecedent basis for a claimed element
            c. It is a preamble to a Jepson claim
            d. It recites additional structure or steps identified as important by the written description
            e. It was relied on during prosecution to distinguish the claim from prior art
         2. A preamble will not be a limitation if

            a. The claim describes a structurally complete invention and removal of the preamble does not affect the structure or steps of the invention
            b. It recites a use
        viii. The patentee can be his own lexicographer
        ix. Prosecution history disavowal: The patentee cannot argue one construction before the PTO and another before the courts
    c. Claim construction procedure
        i. Establish ordinary meaning, using dictionaries, technical references, etc.
        ii. If there are multiple definitions, look to the intrinsic record (specification, written description)
            1. Rule out inconsistent meanings
            2. Patentee will be given all consistent meanings
        iii. Presumption of ordinary meaning will be overcome if the patentee has clearly set forth an explicit definition of the term different than the ordinary meaning

III. Proving Infringement
    a. Literal infringement (35 U.S.C. § 271)
        i. Each element of the claim must be present in the accused device
        ii. A method claim can be infringed even if the steps are not performed in order (unless the claim makes clear that the steps must be performed in order)
        iii. Question of fact
    b. Doctrine of Equivalents (*Graver Tank*, earlier cases)
        i. A claim may be infringed even if not all elements are literally present if equivalents of the missing elements are present
        ii. Doctrine applies to each element individually, not the claim as a whole
        iii. Applies to equivalents at the time of infringement, not at the time the patent issued
        iv. Equivalency Test: Function/Way/Result (Only ideally suited for mechanical inventions. Known interchangeability may be an equivalent test)
            1. Substantially the same function
            2. Substantially the same way
            3. Substantially the same result
        v. Prosecution History Estoppel
            1. Estoppel arises from any amendment made to satisfy any requirement of the patent act
            2. Once there is an amendment, there is a rebuttable presumption that it was to avoid patentability problems (*Warner-Jenkinson*)
            3. If the change was for patentability purposes, there is a rebuttable presumption that the change acts as a complete bar for all potential equivalents (*Festo*)

4. Ways to rebut the presumption
    a. Equivalent unforeseeable at time of invention
    b. Rationale underlying amendment bears only tangential relation to equivalent
    c. Some other reason suggesting that patentee could not reasonably be expected to have described the equivalent
5. What creates estoppel
    a. Broadening patent claims = NO estoppel
    b. Rewriting dependent claim in independent form = estoppel
    c. Canceling a claim and adding a new one = estoppel

vi. Practicing the Prior Art
1. The doctrine of equivalents cannot encompass the prior art
2. "Hypothetical claim" analysis; discredited technique
3. Practicing the prior art is not a defense to literal infringement
4. Burden is on patentee

vii. Question of fact

viii. Dolly Rule: Patentee cannot argue that a claim includes a structure under doctrine of equivalents where the claim expressly excludes the structure

c. Means-plus-Function Claims

i. Generally
1. "Means for"/"step for" with no structure listed generally signals means-plus-function claims
2. Courts will rarely find claims without the magic language to be means-plus-function claims

ii. Claim covers disclosed structures and equivalents (equivalents here is literal infringement)

iii. Interpreting means-plus-function
1. Look in the written description for an associated structure capable of performing the function.
2. The structure must be linked to the function in some way
3. If there is no structure, or the structure is not linked to the function, then the claim is invalid.
4. Claim encompasses equivalent structures
5. Claim encompasses multiple disclosed structures

iv. Whether a claim is means-plus-function: Matter of law

v. What the function is: Matter of law

vi. Identifying structure: Matter of law

vii. Identifying equivalents: Question of fact

viii. Equivalents
1. For literal infringement: Equivalent must perform identical function

        2. For doctrine equivalents: Equivalent must perform substantially the same function
        3. Where two different structures perform the function in a different way, there will be no equivalency

IV. Limitations on Proving Infringement (Proving Non-infringement)
  a. Pioneering Inventions: Given broader level of protection.
  b. Unclaimed disclosure in specification is dedicated to the public
    i. Disclosure and not claiming is a bar
    ii. Failure to disclose and failure to claim retains possibility of equivalents
    iii. Policy: Public is entitled to expect that unclaimed material is not part of the patented invention
  c. All Advantages Rule: The accused device must have all the advantages of the patented device.
  d. Prior User Rights
    i. Limited to business method patents
    ii. More common in foreign countries (Europe)

V. Indirect Infringement
  a. Inducement
    i. Direct infringement by another
    ii. Specific intent to cause acts constituting infringement
    iii. Affirmative act
    iv. Actual knowledge of the patent. Do you need to know that your conduct causes actual infringement? Conflicting cases.
  b. Contributory
    i. Direct infringement by another
    ii. Actual knowledge of the patent
    iii. Knowledge that the component was designed for an infringing use
    iv. Component is a material part of the patented product
    v. Component is not a staple article of commerce suitable for substantial noninfringin use
  c. Exhaustion doctrine
    i. Occurs after first authorized sale of the product
    ii. Implied license not to interfere with purchaser's full enjoyment of the product in exchange for paid purchase price
    iii. Does not apply to conditional sales
    iv. Does not apply to overseas sales
  d. Repair/Reconstruction
    i. Repair of a patented device is permitted; reconstruction is not
    ii. Factors
        1. Nature of defendant's actions
        2. Nature of device and how it is designed
        3. Existence of a market to manufacture or service the part at issue
        4. Objective evidence of patentee's intent
    iii. Repair infringes if the product being repaired is infringing

e. Exportation/Importation (§ 271(f))
    i. Cannot export parts from the U.S. and induce infringement elsewhere
    ii. Cannot export parts from the U.S. and contribute to infringement elsewhere
    iii. Cannot use a patented process outside the U.S. and import the resulting product into the U.S.
f. Experimental use: Cannot be sued for infringement where you are using the patent for idle curiosity strictly for philosophical inquiry.
g. § 271(e): It is not infringement to make use of a patent for the purposes of submitting a generic drug application to the FDA.

VI. Injunctions
  a. Preliminary injunctions
    i. Generally
      1. Preliminary injunctions are rare
      2. Claim construction for preliminary injunction purposes is not binding on the rest of the trial
      3. Patent owner must post bond (equal to reasonable royalty) upon receiving preliminary injunction
    ii. Factors
      1. Reasonable likelihood of success on the merits
        a. Patentee must show a reasonable likelihood that an attack on the patent's validity will fail
        b. Patentee must show reasonable likelihood of infringement
        c. Courts may rely on previous litigation when determining reasonable likelihood of success
      2. Irreparable harm
        a. Presumption exists if patentee shows reasonable likelihood of success
        b. Evidence supporting irreparable harm
          i. Loss of jobs
          ii. Loss of market share
          iii. Short term remaining in patent
          iv. Infringer not likely to pay damages
          v. Other potential infringers encouraged to enter market or increase activities
          vi. Short-lived market for patented product (fad)
          vii. Infringer has large presence in field
          viii. Fast pace of technological change (*Hybritech v. Abbott Labs*)
        c. Evidence rebutting irreparable harm
          i. Patent owner delayed in filing suit or asking for preliminary injunction
          ii. Non-exclusive licensing activity

            iii. Infringer does not compete directly with patentee
            iv. Infringer has capacity to pay damages
            v. Non-infringing substitutes available
            vi. Patent owner has small market share
            vii. Patent owner offered defendant a license
            viii. Defendant has or soon will cease infringing activities
        3. Favorable balance of hardships
        4. Impact of injunction on public interest
            a. Is there a public interest that would be harmed by an injunction?
            b. Generally public interest favors protection of patent rights
            c. Injunction may be modified if infringing product has medical necessity (e.g. cancer /AIDS testing)
- b. Permanent injunctions
    - i. Factors are the same as for preliminary injunctions
    - ii. Generally issued upon a finding of infringement
    - iii. Compulsory licenses have been issued in approx. 5 cases
    - iv. Contempt
        1. Where infringer continues to make infringing product despite injunction
        2. Patentee must demonstrate infringement by clear and convincing evidence

VII. Damages
- a. Generally
    - i. Damages must at least amount to a reasonable royalty
    - ii. Remote consequences of infringement (e.g. inventor's heart attack) are not compensable
- b. Lost profits
    - i. Available if the patentee shows that but for the infringement it would have made sales that were instead made by the infringer
    - ii. *Panduit* factors: DemSuCaP
        1. Demand: Demand for patented product
        2. Substitutes: Absence of acceptable non-infringing substitutes
        3. Capacity: Manufacturing and marketing capability to meet demand
        4. Profits: Amount of profit patentee would have made but for infringerment
    - iii. If patentee meets the test, he is entitled to all reasonably foreseeable lost profits.
    - iv. Where patented product is component of another product, market value rule allows lost profits if

            1. Unpatented and patented components are physically part of the same machine,
            2. The components together were considered part of the same assembly, or
            3. They together formed a functional unit (functional relationship)
            4. Patented component must form the basis of the sale of the entire product (otherwise, lost profits will be apportioned in proportion to profit from patented component)
      v. Lost profits available for patentee's product that competes with infringing product (even if patentee's product is not covered by the patent in question)
      vi. Lost profits may be prorated by market share (*King Instruments*)
   c. Reasonable royalty
      i. Reasonable royalty is the floor for damages
      ii. Factors
            1. Existing royalties
            2. Royalty rates for comparable patents
            3. Nature and scope of existing licenses
            4. Licensor's policy of not extending licenses or extending only under special conditions
            5. Commercial relationship between licensor and licensee
            6. Effect of selling the patented device in promoting sales of other products by the patentee
            7. Duration of patent and term of licenses
            8. Established profitability of the product; commercial success
            9. Advantages of the patented product over the old products
            10. Nature of the patented invention and the commercial embodiment
            11. Extent to which the infringer has made use of the patented invention
            12. Customary portion of profit/selling price to allow for use of the invention (?)
            13. Portion of profit credited to the patented invention (as opposed to non-patented components)
            14. Opinion testimony of qualified experts
            15. Hypothetical willing licensor/willing licensee
            16. Presence of convoy/derivative sales
      iii. The infringer does not need to be left with a net profit after the reasonable royalty
      iv. Courts may not add punitive components ("Panduit kicker") to reasonable royalties
      v. Patentee cannot get both lost profits and reasonable royalty on the same sales
      vi. More competition in the marketplace = higher royalty
   d. Willful infringement

i. Elements
    1. Whether infringer acted in good faith upon actual notice of the patent
    2. Infringer had a reasonable basis to believe that his actions did not infringe the patent
ii. Factors to consider for willful infringement enhanced damages
    1. Whether infringer deliberately copied the ideas/design of another
    2. Whether the infringer, knowing of the patent, investigated and formed a good-faith belief of invalidity or noninfringement
    3. Defendant's size and financial condition
    4. Closeness of the case
    5. Duration of misconduct
    6. Remedial action by defendant
    7. Defendant's motivation for harm
    8. Whether defendant attempted to conceal misconduct
iii. An individual's knowledge will be imputed to the company if the individual is in a position of authority (counsel, president, chief engineer)
iv. Actual knowledge requites
    1. Actual knowledge of the patent
    2. Knowledge that there is the possibility of infringement
v. Opinion letters
    1. Generally the best way to prove good faith belief of noninfringement
    2. Is reliance on the opinion letter reasonable? Factors to consider
        a. Timing of the opinion
        b. Content of the opinion
        c. Qualifications of the author
        d. Qualifications of the recipient
    3. So long as opinion letter was reasonable, it does not matter that the letter was wrong
    4. Failure to obtain opinion letter will not give rise to adverse inference
    5. No adverse inference will be drawn from an infringer's use of attorney-client privilege to prevent disclosure of the opinion letter.
vi. Litigation misconduct alone will not support enhanced damages

e. Attorney's fees
    i. Litigation misconduct can be a basis for attorney's fees
    ii. Reasonable expert fees are available (as defined in statute)
    iii. Court need not award attorney's fees if both sides' conduct was bad

f. Interest

i. Court has discretion to determine means for calculating prejudgment interest and whether it is compounded or not
ii. Court normally has discretion to determine time period of interest, but cannot award interest for delay beyond infringer's control
iii. Postjudgment interest is determined by statute
    1. Calculated based on 52-week T-bills
    2. Compounded annually
    3. Starts from the day clerk enters final judgment

g. Other types of damages
    i. Price erosion
        1. The infringer forced the patentee to reduce prices
        2. Problems
            a. Lower prices may have been for another reason
            b. Not everyone would have bought at the original (higher) price
    ii. Loss of market share/goodwill
    iii. Derivative sales: sales of other products the patentee would have made but for the infringement (e.g. spare parts, accessories). Lost profits only.
    iv. Accelerated market reentry
        1. The infringer will be able to enter the market at a faster rate than competitors when the patent expires
        2. The patentee can get some lost profits based on sales made after the patent's expiration
    v. Convoy sales: sales that would have occurred simultaneously with the sale of the patented product (cameras and film). Lost profits only
    vi. Publication: Patentee can obtain damages for the time period between publication and issuance
        1. Only reasonable royalty
        2. Only if defendant had notice of the publication
        3. Published claim and issued claim would both be infringed by the defendant's actions

h. Patent marking
    i. Owner of a patent who sells products based on the patent cannot obtain damages unless
        1. The product is clearly marked, or
        2. The infringer was notified of the patent and continued to infringe
    ii. Applies to pure product patents and patents with product and process claims.
    iii. Notification (cease and desist) must be made by the patent owner
    iv. Patentee is not obligated to begin marking once the patent issues, but may only receive damages from the time marking began

v. Patentee will get credit for marking even if licensees did not mark all products so long as patentee engaged in due diligence to ensure licensee marking

VIII. Reexamination, reissue

- a. Reexamination
    - i. Generally
        1. Only patents and printed publications may be cited in reexamination requests
        2. Can't broaden claims in reexamination
        3. Reexamination cannot cure inequitable conduct
        4. Courts can stay litigation during reexamination
        5. The existence of a substantial new question of patentability shall not be negatived by the fact that
        6. Advantages
            - a. Can be used to clear prior art
            - b. Judges are more deferential to reexamined patents
            - c. Faster, less expensive than litigation
    - ii. Ex parte reexamination
        1. Any party may bring ex parte communication
        2. Once reexamination initiated, only patentee may communicate with PTO, although copies are forwarded to the requester
        3. Request may be done anonymously
    - iii. Inter partes reexamination
        1. Any third party may request inter partes reexamination
        2. The third party is involved in the litigation
        3. Third parties have limited appeal rights
        4. Estoppel: third party cannot raise in court or in a later reexamination any issue it did raise or could have raised during the examination.
- b. Reissue
    - i. Patent owner may seek reissue where an error, made without deceptive intent, renders the patent invalid. Error may be
        1. Defect in specification or drawing
        2. Patentee claimed more or less than he should have
    - ii. Reissue cannot add any new matter (original specification must support new claims)
    - iii. Reissue may only broaden claims within two years of issuance.
    - iv. Recapture: Patentee cannot seek to recapture material that the examiner rejected in the original application
    - v. Intervening Rights
        1. Someone who did not infringe the earlier claims but does infringe the new claims may receive intervening rights
        2. Courts will not impose damages prior to reissue date
        3. Damages after reissue date are discretionary