

NCLCLB Education Topic Sheet

Technical Credits (directly relating to the subject matter of landscape contracting):

Found in Subchapter 28B – Licensing Board Rules Section .0500 – Minimum Standards

Many class topics can be found directly out of the Statute itself or the Rules Section of the Statute, which lists minimum requirements for licensure. Requirements for each Minimum Standard are listed. Below are examples of what class topics could be in relation to either the Statute or the Rules.

General Statute 89D

Any educational topic that includes the following:

- Knowledge of NCLCLB requirements for licensure and maintaining license per the statute, including continuing education requirements
- Knowledge of the statute regarding any work that a licensed landscape contractor is NOT allowed to do
- Knowledge of types of licenses (i.e. individual and corporate) and how they differ
- Knowledge of who and what the license covers
- Knowledge of the use of the NCLCLB seal on various communications (including vehicles)
- Knowledge of powers and duties of the NCLCBL and complaint and disciplinary action process

General: 21 NCAC 28B .0501

Any educational topic that includes the following:

- How to write project contracts per the NCLCLB rules
- Knowledge of building codes, local ordinances, and manufacturer’s specifications needed for projects
- Communication with all parties of contradictions regarding any codes, ordinances, or manufacturer’s specifications in the original design
- Communication with all parties regarding site conditions that need further attention beyond original scope of work
- Knowledge of the NC 811 Law (Locating underground utilities)
- Knowledge of safety on the jobsite per state and local standards

Planting: 21 NCAC 28B .0502

Any educational topic that includes the following:

- Correctly planting material (trees, shrubs, perennials, annuals, grasses, etc) as required in the rules. See attachment 1.
- Techniques to correctly handle plant material before, during, and after construction.
- New, emerging, or changing research related to the handling and planting of plant material.
- Cultural Requirements of different plants (soil, sun, water, etc.)
- Maintaining plants after initial planting: mulching, fertilizing, pesticide use, watering, etc.
- Tree / Plant staking as needed. See attachment 1.

Turf: 21 NCAC 28B .0503

Any educational topic that includes the following regarding A (seed, sod, and sprig):

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- Turf knowledge: grass types (warm season vs. cool season); cultural requirements of turf (soil, sun, water, etc.);
- Turf establishment techniques by seed: time, seed distribution, seed rate application, seed soil contact, soil preparation, watering needs, fertilizer needs, pH requirements
- Turf establishment techniques by sod: timing, sod patterns and seams, sod soil contact, watering needs, fertilizer needs, pH requirements
- Turf establishment techniques by sprigs: distribution, soil contact, watering needs, fertilizer needs, pH requirements
- Knowledge of soil testing: how to collect samples and who to send test samples to
- Weed and pest management of turfgrass (includes ALL pests – weeds, insects, disease)

Any educational topic that includes the following regarding B (artificial turf):

- Knowledge of available synthetic turf materials best for each individual project (standard lawn, pet areas, putting greens with additional chipping areas)
- Client education on materials and cost
- Knowledge of how to prepare the base for synthetic turf including base materials and excavation
- Knowledge of how to prevent ponding/puddling of water and allow for proper drainage (including water evacuation from the putting green cups)
- Knowledge of how weather conditions impact the synthetic turf installation (especially temperatures related to adhesive and stretching)
- Knowledge of vibratory compaction equipment to stabilize the base
- Knowledge of training and certification requirements for certain synthetic turf materials
- Follow manufacturer's specifications for each install (you also can reference the Synthetic Turf Council of America - syntheticturfcouncil.org)
- Knowledge of soil testing requirements for synthetic turf install
- How to train employees on synthetic turf installation techniques
- Knowledge of installing synthetic turf on concrete slab will need to be aware of proper impact materials used under the turf and proper adhesive
- Knowledge for pet turf installation (understanding proper sand infill and regular cleaning)
- Knowledge of sand infill for proper weighting down of the synthetic turf
- Knowledge of proper exterior adhesive for seaming sections of synthetic turf
- Knowledge of proper tools for installing synthetic turf such a carpet stretchers, spiral nails, edge restraints

Finish Grade: 21 NCAC 28B .0504

Any educational topic that includes the following:

- Surface grading techniques that include smoothing the grade and ensuring all water is flowing away from structures with no ponding or puddling
- Knowledge of local and national building codes pertaining to slopes and drainage of final grade
- Knowledge of equipment needed for all grading tasks
- Knowledge of engineering maps and plans for grading tasks (i.e. how to read and execute using contour maps, etc.)

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- Grading techniques for differing soil types (i.e. sand vs. silt vs clay)

Design & Consultation: 21 NCAC 28B .0505

Any educational topic that includes the following:

- Design regarding cultural and site requirements of plants, size of area to be landscaped, drainage requirements, etc.
- Design process from visiting site to completing design (start to finish)
- Technology assisting with design process
- Designing with state and local codes / standards in consideration

Drainage Systems & Cisterns: 21 NCAC 28B .0506

Any educational topic that includes the following:

- Knowledge of drainage systems & cisterns including French drain systems, storm drainage, closed drywells, downspout / sump drainage connections, rain gardens, permeable pavers, etc.
- Installing drainage systems & cisterns regarding state and local codes / ordinances; with a positive flow (i.e., draining away from structures); with structural integrity
- Maintenance and cleaning of drainage systems and cisterns
- Knowledge of designing drainage systems and cisterns
- Knowledge of soil type in regards to drainage systems and cisterns
- Knowledge of any engineering requirements regarding drainage systems and cisterns
- How to read any drainage system and cistern engineering plans
- Knowledge of state, local, and community codes, including permitting requirements
- Knowledge of product and installation techniques per manufacturer's instructions
- How to educate both clients and employees on differing drainage systems and cisterns
- Knowledge of pump power source

Low-Voltage Lighting; Pools: 21 NCAC 28B .0507

Any educational topic that includes the following:

- Knowledge of available fixtures that are waterproof, including wire connections
- Complying with manufacturer's specifications with fixtures
- Knowledge of the National Electrical Code (NEC) standards
- Installation of GFCI circuits, transformers
- Customer communication regarding lighting components and post installation inspections
- Knowledge of line voltage power source, where to mount controller, WiFi (or wireless) accessibility
- Safety of electricity and heights (i.e. on structures or trees, etc.)
- Educating clients and employees on products used
- Knowledge of insurance requirements as needed to install low-voltage lighting and pools
- Knowledge of state, local, and community codes regarding low-voltage lighting and pools
- Knowledge of different types of warranties provided to clients regarding low-voltage lighting and pools
- Knowledge of garden pools (ornamental only, NOT a swimming pool)

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- Knowledge of types of garden pool materials (i.e. concrete, rubber membrane, etc.)
- Knowledge and client education of pool maintenance, including pump and pipe maintenance, pool cleaning requirements, fish care, etc.
- Knowledge of soil type as base for a garden pool – including underlayment needs and grading away from pool and drainage from pool itself if needed
- Requirements for pumps and associated pipes – power source, size requirements, etc.
- Knowledge of evaporation rates that will impact garden pools
- Knowledge of fish and care of fish in garden pool

Walls: 21 NCAC 28B .0508

Any educational topic that includes the following:

- Knowledge of all codes, ordinances, design specifications, and manufacturer’s specifications regarding wall to be installed
- Correctly installing both retaining and freestanding walls per the minimum standards as set forth in the Rules.
- Knowledge of available materials best for each individual project (i.e. stacked stone vs. block)
- Knowledge of laws pertaining to wall height and engineering specifications
- Client communication and education on wall type, materials, and cost
- Knowledge of how to prepare base for a wall, including base soil type and rock type
- Knowledge of water flow and drainage concerning walls
- How to read engineered wall specifications and plans

Paving: 21 NCAC 28B .0509

Any educational topic that includes the following:

- Knowledge of available paving materials best for each individual project (i.e. concrete, pavers, rock, asphalt, etc.)
- Client education on materials and cost
- Knowledge of how to prepare base for a paved surface, including base soil type
- Knowledge of how to prevent ponding/puddling and allow for proper drainage
- Knowledge of reinforcement by concrete slabs and utilizing edge restraints
- Knowledge of how weather conditions impact the paving process, especially temperature conditions
- Knowledge of vibratory compacting equipment to set pavers and after joints are swept
- Knowledge of training and certification requirements for certain paving materials
- Follow manufacturer’s specifications for each install
- Knowledge of soil testing requirements for paving
- Knowledge of equipment used for paving
- How to train employees on paving installation techniques
- Knowledge of when engineering may be needed for paving projects

Pruning: 21 NCAC 28B .0510

Any educational topic that includes the following:

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- Knowledge of tools used for pruning
- Knowledge of when to prune and why to prune
- Proper pruning techniques (i.e. no topping trees, no flush cuts, pruning close to trunk but not into trunk, how to avoid splitting wood or tearing bark, etc.)
- Removing branches to avoid damage to other trees / plants / property
- Knowledge of different pruning techniques for aesthetics (i.e. topiary, sculpting, espalier, etc.)

Wildflower, Native Grass, and No-Mow Seed Establishment: 21 NCAC 28B .0511

Any educational topic that includes the following:

- Knowledge of timing / scheduling of grass and forb seed establishment compared to construction timeline; timing and scheduling seasonally appropriate non-allopathic cover crops, nurse crops, and mulch as needed; timing of dormant seeding schedules
- Knowledge of cultural requirements for seed establishment (water, sun, soil type, slope gradient, etc.)
- Knowledge of weed control prior to seeding / sowing wildflowers and grasses
- Knowledge of seed mixes and their contents (i.e. no invasive species within)
- Client communication and education on timelines, expectations, and maintenance
- Knowledge of types of wildflower and grasses, including annual vs. perennial, bloom times
- Knowledge of how to manage surrounding pressures from both weeds and wildlife (i.e. invasive weeds, wild boars, deer, etc.)
- Soil preparation techniques
- Seed distribution techniques for Pure Live Seeds (PLS) rates and bulk seed rates
- Fertilization and pH requirements of wildflowers and grasses
- Knowledge of seeding on differing gradients (i.e. seed rates will be higher for a slope or 30 degrees or more)

Business Credits (as related to doing business as a landscape contractor):

Found in Subchapter 21 NCAC 28B .0402 Continuing Education Units

Knowledge of general business practices including:

- Business planning: understanding business plans (i.e. internal and external) and how to develop and maintain/change one; market analysis (i.e. research on industry and target audience); financial plans; logistics and operation plan; understanding how to re-assess plan to realign with company goals
- Developing and understanding business contracts, including contracts between licensee and other businesses and licensee and clients/customers
- Liability exposures including understanding liabilities/risks and consequences
- Understanding insurance types and what insurance is needed by a licensee to complete different projects;
- Understanding legal business structures (i.e. LLC, S Corp, Sole Proprietorship)
- Human Resources including recruiting, onboarding, training, managing, and retaining employees; payroll and benefits administration; establishing and managing workplace culture;

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establishing and managing workplace expectations and productivity; managing relationships among employees and employee / employer; employee termination

- Basic Accounting: Payroll; Taxes; Accounts Payables; Accounts Receivables, etc.
- Creating and Understanding accounting reports such as Profit & Loss Statements; Sales Reports; Receivables Reports; Expense Reports; Balance Sheets; Job / Item Profitability Statements; Accounts Payable Aging Summary, etc.
- Preparing and understanding financial statements
- Knowledge of human resources, accounting, and logistics software
- Knowledge of general use business software (i.e. Microsoft Office, company email, etc.)
- Workplace safety including understanding local, state, and federal rules and regulations regarding workplace safety; establishing and maintaining company safety rules
- Business and workplace ethics
- Business scaling in order to manage increased or decreased workloads – strategies on how to establish a scaling plan and how to implement a scaling plan