

C25

Health Center

Millikan Hall

Dieterich Hall

The Station

Franken Hall

Northwest Drive

Garrett-Strong

C24

Phillips Hall

Tower Suites

C23

C21

C20

C17

C18

C19

C14

C15

C16

C7

C13

C12

C11

C10

C8

C9

C6

C5

C4

C3

Owens Library

C22

C2

North Complex

C1

Baseball Field

C35

South Complex

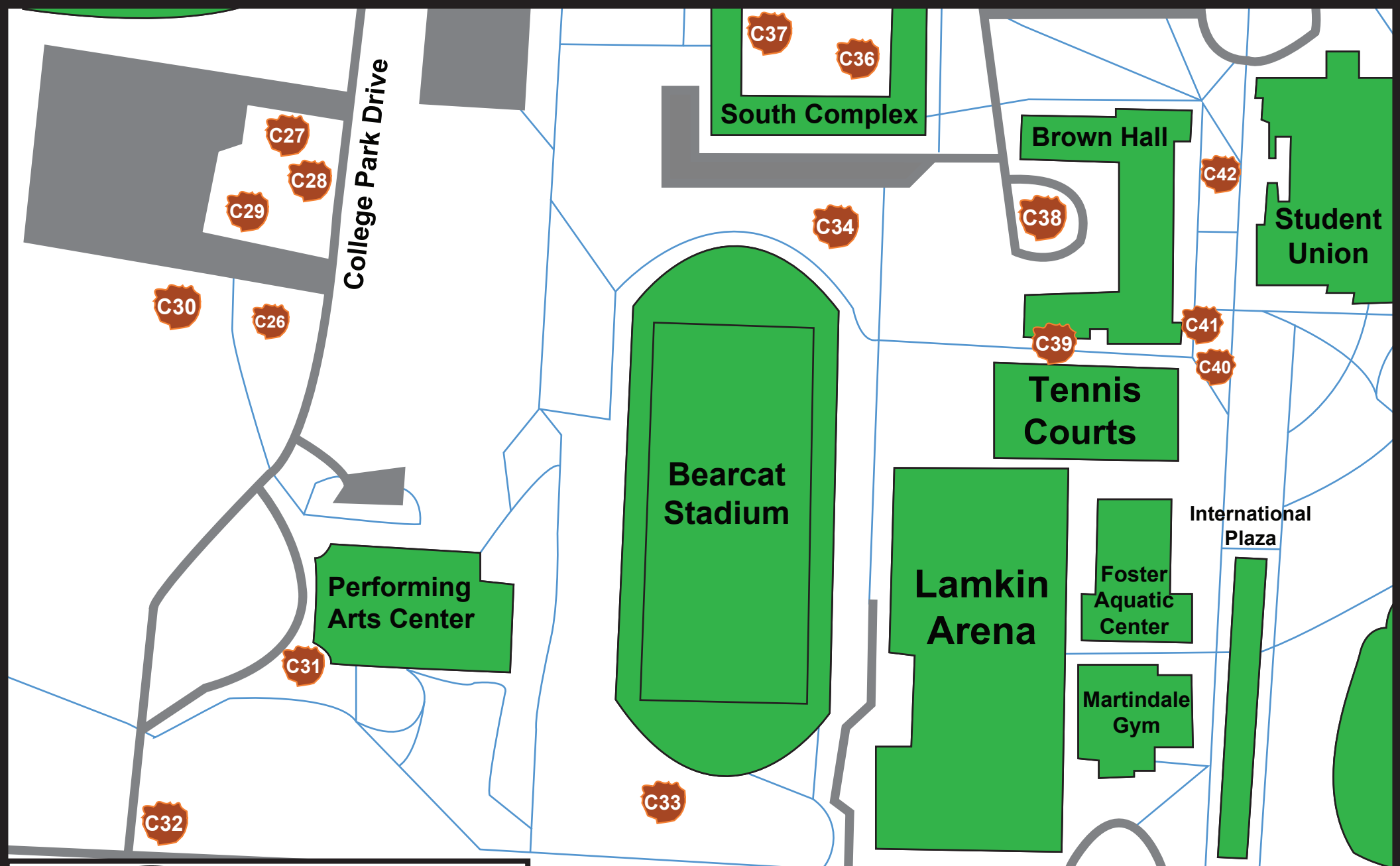
Brown Hall

College Park Drive



Chatauqua Trail

Northwest Missouri State University



Chatauqua Trail

Northwest Missouri
State University

College Drive

Tree Descriptions – Chataqua

C02 Swamp Chestnut Oak *Quercus michauxii*
Native from southern Maine and Ontario to South Carolina and Alabama, but occurs in moister soils than Chestnut Oak, grows larger than 12 to 15' and the involucre scales form a fringe round the rim. Might be Identified with *Q. prinus*. under *Q. michauxii*. Leaves: Alternate, simple, obovate to obovate-oblong, 4 to 6" long, 1 1/2 to 3 1/2" wide, acute or acuminate, cuneate or rounded at base, coarsely and regularly toothed. Acorns are borne 1 to 2.

C03 Nuttall Oak *Quercus nuttallii*
Not distinguished as a species until 1927, is also called red oak, Red River oak, and pin oak. It is one of the few commercially important species found on poorly drained clay flats and low bottoms of the Gulf Coastal Plain and north in the Mississippi and Red River Valleys. The acorn or winter buds identify Nuttall oak, easily confused with pin oak (*Q. palustris*).

C04 American Yellowwood *Cladrastis lutea*
Native. Leaves are alternate, pinnately compound, 12 inches long, with five to seven leaflets, Height to 50 feet. Mature bark is smooth and grey and the wood is yellow. Showy flowers in white clusters become pea-like pods. Excellent tree for flowers and foliage, however not a very common tree. Southern Indiana has the only native forest surviving.

C05 Red Oak *Quercus rubra*
Native. Leaves alternate, simple, 5 to 8 inches long with seven to eleven lobes that are upward pointing. Excellent red fall color. Acorn cup is flat and saucer-like, enclosing one-fourth of the nut. Height to 80 feet. Fast growing and is a good city tree. Finest oak timber species.

C06 Overcup Oak *Quercus lyrata*
Southeast United States. Leaves alternate, simple, 6 to 8 inches long. Height to 45 feet. It has uni-form branching and can thrive in confined spaces or on a slope. The name derives from the cup that almost encloses the nut.

C07 American Hornbeam *Carpinus caroliniana*
Nova Scotia to Minnesota, south to Florida and Texas. Leaves: Alternate, simple, 2 1/2 to 5" long, 1 to 2" wide, ovate-oblong, acuminate, rounded or heart-shaped. Bark: Smooth, thin, dark bluish gray, close fitting. Small, ribbed, seed-like nutlet. 20 to 30' in height and as wide, potential to reach 40 to 50'; 65' Flowers: Monoecious, male, 1 to 1 1/2" long. Fruit: A nutlet, borne at base of 1 to 1 1/2" long.

C08 Amur Maple *Acer ginnala*
Northern China. Small multi-stemmed tree to 20 feet high. Leaf is three-lobed, opposite, simple, approxi-mately 1.5 to 3 inches long and toothed. Hardy, multi-stemmed with good red fall color. Popular for patio tree, screen or grouping. Can be pruned for hedges.

C09 Japanese Maple *Acer palmatum*
Japan, China, Korea. Leaves opposite, simple, 2 to 5 inches long, deeply lobed. Height 15 to 25 feet. There are many cultivars of this species which have varied uses in the landscape.

C10 Panicked Goldenrain tree *Koelreuteria paniculata*
China. Leaves are alternate, pinnately compound, with seven to 15 leaflets. Height to 40'. The tree produces showy yellow flowers in July. The fruit is equally as impressive. Papery three-sided capsules hang in clusters like tiny Chinese lanterns. The genus name is in reference to Joseph Koelreuter, pioneer in the study of hybridization.

C11 Paper Birch *Betula papyrifera*
Native. Leaves alternate, simple, 2 to 3 inches long and coarsely serrated. Yellow fall color. Peeling grey and white bark. Fifty to 70 feet high. Indians used the bark for canoes and wigwam covers. Oil extracted from the bark contains methyl salicylate used to treat rheumatism and inflammations. Handsome in winter landscape against an evergreen backdrop.

C12 Autumn Olive *Elaeagnus umbellata*
Central Asia, Japan. Leaves are 2 to 4 inches long and .75 to 1.5 inches wide. Height 12 to 20 feet. Flowers are funnel shaped and silvery white. Not a plant for the home landscape. It can become a weed with time, as the birds will spread the seeds. Salt tolerant.

C13 Quaking Aspen *Populus tremuloides*
Native from Labrador to Alaska, south to Pennsylvania, Missouri, northern Mexico and lower California. Leaves: Alternate, simple, thin, ovate to orbicular, short-acuminate, truncate to broad-cuneate at base, 1 1/2 to 3" long and wide, finely glandular-

serrate. Heights of 40 to 50' with a spread of 20 to 30'. Pyramidal and narrow when young.

C14 Scotch Pine *Pinus sylvestris*
The needles are stiff, twisted, 1 to 3 inches long, and in bundles of two. Cones are 2 to 5 inches long and have flat-topped scales tipped with a prickle. The bark is scaly and orange-red on upper branches of older trees. Height to 60 feet. It is a timber tree that is widely planted in North America. One of the most popular pines for Christmas tree use.

C15 Common Smoketree *Cotinus coggygia*
Native: Southern Europe to central China and Himalaya. LEAVES: Alternate, simple, oval to obovate, 1 1/2 to 3 1/2" long, rounded or slightly emarginate at apex. 10 to 15' in height by 10 to 15' spread. Flowers: 5-petaled yellowish flower 1/8" in diameter and sparsely borne. Fruit: 1/4" wide, kidney-shaped, dry reticulate drupe.

C16 Yellow Poplar or (Tupil) *Liriodendron tulipifera*
Eastern United States. Leaves are simple, alternate and have a unique tulip shape which gives the tree its other common name. The terminal buds resemble a duck's bill. Height to 150 feet. The wood is used to make furniture and boats.

C17 Silver Maple *Acer saccharinum*
Native. Leaves opposite, simple, 3 to 6 inches across with five deep lobes and silver undersides. Reaches 60 to 80 feet in height for quick shade. Rapid growth causes weak wood. There are too many superior trees to warrant the use of this species.

C18 Shingle Oak *Quercus imbricaria*
Native. Leaves simple, alternate, oblong, 2.5 to 6 inches long; dark green in summer, turning russet-red in the fall. Height of 50 to 60 feet. Shape pyramidal in youth, developing a broad-rounded outline in old age. Prefers moist, rich, well-drained soil and full sun. Used for lawn, street, park, golf courses and other large areas.

C19 European Hornbeam *Carpinus betulus*
Europe, Asia Minor, southeast of England. Leaves: Alternate, simple, ovate to ovate-oblong, sharply and doubly serrate, 2 1/2 to 5" long, 1 to 2" wide. 40 to 60' in height by 30 to 40' in spread. Flowers: Monoecious, male catkins, 1 1/2" long; female 1 1/2 to 3" long.

C20 Bosnian Pine *Pinus heldreichii*
Is a slow growing pine, to 75 feet tall. Growth habit is dense with an oval or cone shaped crown. Bark is a pale gray. Needles are in pairs, dark green, female cones are 3 inches long, blue when young, brown upon maturing, borne singly or in clusters of 2 or 3.

C21 Red Pine *Pinus resinosa*
Newfoundland and Manitoba, south to Pennsylvania's mountains, west to Michigan. Leaves: densely arranged on the branches, slender, 5 to 6" long, margins finely and regularly toothed, apex sharp-pointed. 50 to 80' in height with a variable spread; can grow to 125'. Grows best in colder climates. Flowers: Monoecious, clustered; staminate red, pistillate reddish. Fruits: Cones subterminal, sessile, ovoid-conical.

C22 Japanese Zelkova *Zelkova serrata*
Japan. Leaves are alternate, simple, 1 to 2 inches long with sharply serrated edges. Height 50 to 80 feet with equal spread. Very handsome tree because of good foliage, interesting growth habit and handsome bark. A well suited city tree, it is considered a replacement for the American Elm.

C23 Downy Serviceberry *Amelanchier arborea*
Shrub or tree form: white flowers; edible fruits; this cultivar has brilliant red fall color; height: 15-25 feet; width varies.

C24 Butternut *Juglans cinerea*
Native from New Brunswick to Georgia, and west to the Dakotas and Arkansas. Leaves: Alternate, pinnately compound, 10 to 20" long, 11 to 19 leaflets.

C25 Shumard Oak *Quercus shumardii*
LEAVES: Alternate, simple, obovate to elliptic, 4 to 6" (8") long, 3 to 4" wide, usually with 7 lobes, occasionally 9, sinuses cut deeply to midrib, leathery, lustrous dark green above, glabrous except for axillary tufts of hairs below; petiole 1 1/2 to 2 1/4" long. BUDS: Probably the only reliable aid to separate this species from *Q.*

C26 Black Locust *Robinia pseudoacacia*
Native to central and southeastern U.S. Leaves are alternate, pinnately compound and up to 14 inches long. Leaf scars sport paired thorns 1/4 to 1/2 inch long. Fast-growing to 50' tall. Fruit is a pod. Spreads easily from seed and from root shoots. Tough tree, bees like the flowers, but not for most landscapes.

C27 Lacebark Elm *Ulmus parvifolia*
LEAVES: Alternate, simple, elliptic to ovate or obovate, 3/4 to 2 1/2" long, 1/3 to 1 1/3" wide, acute or obtusish, unequally rounded at base, simply or nearly simply serrate, lustrous dark green and smooth above, pubescent beneath when young, subcoriaceous at maturity, 10 to 12 vein pairs; petioles 1/4 to 1/2" long.

C28 Japanese Larch *Larix kaempferi*
LEAVES: 1 to 1 1/4" long and 1/25" wide; on short spurs 40 or more together, 1 1/2" or longer; upper side of both kinds flat, glaucous, underside keeled and with 2 white bands, deep green.

C29 Black Walnut *Juglans nigra*
Leaves are alternate, pinnately compound with 15 to 23 leaflets. Height 50 to 75 feet but can reach 150 feet. Open branching. This tree prefers rich, moist soil for good growth. Wood is used for furniture and gunstocks. Nut meats and shells are used commercially.

C30 Osage Orange *Maclura pomifera*
Native. Leaves simple, alternate, 2 to 5 inches long. Height to 60 feet. Named by the Indians of Oklahoma for its large, round, yellow-green, orange textured fruit. Used as hedgerows on the plains. Wood is decay resistant and used to make fence posts and bows.

C31 Pagoda Dogwood *Cornus alternifolia*
Native: New Brunswick to Minnesota. Leaves: Alternate, crowded near ends of twigs, appear whorled, simple, elliptic-ovate, 2 to 5" long, 1 to 2 1/2" wide. 15 to 25' in height, possibly 1 1/2 times in spread. Flowers: Yellowish white, sickeningly fragrant. Fruit: Drupe, bluish black, bloomy, 1/4 to 1/3" across; fruit changing green to red to blue-black at maturity.

C32 American Beech *Fagus grandifolia*
Eastern United States. Leaves are smooth, alternate, 2 to 6 inches long with incurved marginal teeth. The smooth blue-gray bark is commonly blotched. Height 60 to 100 feet. The foliage is dark green changing to golden bronze and persisting into winter. Nuts are edible. The American Beech once formed great groves where flocks of now-extinct passenger pigeons came to feed and roost.

C33 Eastern Red Cedar *Juniperus virginiana*
Native. Closely over lapping four-sided branchlets. New foliage is pointed and prickly. Wood is a rich red color and bark is reddish-brown and shredding. Wood is used to make cedar chests, walls and closets. Height to 50 feet. It is pyramid shaped and does best in limestone regions.

C34 Shantung Maple *Acer truncatum*
Native: Northern China. Leaves: Opposite, simple, 3 to 5" wide, not as high, 5-lobed, each lobe triangular in shape, two basal lobes drawn out, contains milky sap. 20 to 25' in height with a spread. Flowers: Greenish yellow, 1/3 to 1/2". Fruit: Samara, 1 1/4 to 1 1/2" long.

C35 Eastern Cottonwood *Populus deltoides*
Native. Kansas state tree. Indians nicknamed it the necklace poplar. Leaves are roughly 3 to 6 inches long and triangular. Height to 100 feet. Early settlers welcomed the shade and buffalo used the rough, ridged bark to help shed their winter coats. The cottony seed mass is seen under and around the tree at dispersal time.

C36 Chinese Chestnut *Castanea mollissima*
Northern China, Korea. Leaves alternate, simple, 3 to 8 inches long. Prickly husks surround 2 to 3 flattened nuts. Used as a replacement for the American Chestnut which was essentially destroyed by chestnut blight, a fungus disease. Mature height 40 to 60 feet.

C37 Persian Parrotia *Parrotia persica*
Iran. Leaves alternate, simple, 3 to 5 inches long and 1 to 2.5 inches wide, rounded at the base and coarsely toothed past the middle. Tree grows 20 to 40 feet tall, and spreads nearly as wide. Yellow to scarlet fall color. Relatively stress-resistant and pest-free.

C38 American Hophornbeam *Ostrya virginiana*
Native: Cape Breton, Ontario to Minnesota, south. Leaves: Alternate, oval-lanceolate, acuminate, rounded or heart shaped. Nutlet, enclosed in hop-like sac. 25 to 40' in height and 2/3' to in spread. Flowers: Monoecious, grouped in 3's 1" long.

1/3" nutlet, enclosed in an inflated, membranous, and resembles the fruit of hops.

C39 Scholar Tree (Japanese) *Sophora japonica*

China, Korea. Leaves alternate, pinnately compound, 6 to 10 inches long with seven to 17 leaflets. Twigs are green. This tree can grow to the height of 75 feet. Good tree for city conditions. Attractive foliage and white flowers in August are an asset to this tree.

C40 Norway Maple *Acer platanoides*

Europe. Leaves opposite, 4 to 7 inches across, five lobed. Milky sap is visible when the petiole is removed from the stem.

Reaching to 90 feet. Yellow fall color. 'Crimson King' is a well known cultivar. Its leaves are purple throughout the growing season.

C41 Black Maple *Acer nigrum*

Minnesota, Iowa, Kansas and Arkansas. Leaves: Opposite, simple, 3 to 6" wide, 3 to 5 drooping lateral leaf lobes. Very similar to *A. saccharum*, Sugar Maple. Greater heat and drought tolerance compared to Sugar Maple.

C42 Sugar Maple *Acer saccharum*

Native. Leaves opposite, simple, 3 to 6 inches across, with three to five lobes. Seventy-five to 100 feet high. Sap used as a source of maple sugar. Brilliant fall color. .