

CS107 Exam C Reference Sheet

C Strings

```
size_t strlen(const char *str);
int strcmp(const char *s, const char *t);
int strncmp(const char *s, const char *t, size_t n);
char *strchr(const char *s, int ch);
char *strstr(const char *haystack, const char *needle);
char *strcpy(char *dst, const char *src);
char *strncpy(char *dst, const char *src, size_t n);
char *strcat(char *dst, const char *src);
char *strncat(char *dst, const char *src, size_t n);
size_t strspn(const char *s, const char *accept);
size_t strcspn(const char *s, const char *reject);
char *strdup(const char *s);
```

```
int atoi(const char *s);
long strtol(const char *s, char **endptr, int base);
```

Memory

```
void *malloc(size_t sz);
void *calloc(size_t nmemb, size_t sz);
void *realloc(void *ptr, size_t sz);
void free(void *ptr);

void *memcpy(void *dst, const void *src, size_t n);
void *memmove(void *dst, const void *src, size_t n);
void *memset(void *base, int byte, size_t n);
```

Search and Sort

```
void qsort(void *base, size_t nelems, size_t width,
           int (*compar)(const void *, const void *));
void *bsearch(const void *key, const void *base, size_t nelems, size_t width,
              int (*compar)(const void *, const void *));
void *lfind(const void *key, const void *base, size_t *p_nelems, size_t width,
            int(*compar)(const void *, const void *));
void *lsearch(const void *key, void *base, size_t *p_nelems, size_t width,
              int(*compar)(const void *, const void *));
```

I/O

```
char *fgets(char buf[], int buflen, FILE *fp);
```